Relationship Affirmation, Self-Esteem, and Important Goal Pursuit in Adolescence

Thesis submitted by

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I, Rose McGranahan, confirm that the work presented in this thesis is my own.

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Abstract

The pursuit of an ideal self and related goals is a constant throughout the lifespan, and a great deal of motivation and self-regulation is required in order to move closer to this ideal. For adolescents in particular, the ability to harness enough motivation to pursue important goals can be a struggle. The current thesis examined the ways in which having close affirming relationships may enhance young people's ability to pursue their goals, and move closer to their ideal selves. An established inter-personal model of motivation, the Michelangelo Phenomenon, was used as a backdrop for a series of four empirical studies, each building on the previous to further clarify the contributions self-esteem and relationship affirmation make to goal pursuit. The first study extended the concept of relationship affirmation for use in relationships other than romantic couples, to determine whether all forms of affirming relationships could be beneficial to goal pursuit and movement towards the ideal self. This being the case, along with relationship affirmation mediating the positive relation between self-esteem and goal pursuit motivation, the next study extended this further by applying the theory to adolescents undertaking their last years of school. A three time-point school-based study was carried out, testing the mediation hypothesis in adolescents from four Greater London schools. Three empirical chapters describe findings from this study, with Chapters 3 and 4 examining the first time points cross-sectionally, and Chapter 5 analysing the first and last time points longitudinally. The findings revealed relationship affirmation to be a strong predictor of motivation to pursue ideal-relevant goals, and of life satisfaction. The mediation model was supported for the most part, although the pattern was not found longitudinally. The findings reveal the central importance of social support, and particularly the presence of affirming relationships, to enable adolescents to pursue important goals.

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Chapter 1 : Literature Review

Introduction

Throughout life, people are constantly striving to pursue their important personal goals, and become the person that they ideally want to be. In this thesis, I will consider the factors that help and hinder goal pursuit, with a particular focus on adolescents, in the midst of pursuing academic goals, the results of which are likely to affect their future prospects across multiple domains. In this chapter, I will review the literature on which my thesis is based, drawing on an array of research traditions concerning the self and motivation, with an emphasis on the Michelangelo Phenomenon, which adds an inter-personal element to the literature on self processes (Drigotas et al., 1999). I will then discuss the sometimes controversial link between self-esteem and goal pursuit, and the ways self-esteem has been shown to affect social interactions. These areas will be considered in reference to adolescents, and the specific challenges they face when pursuing goals and conceptualising possible selves, and the ways in self-esteem and relationship affirmation affect this pursuit.

Pursuing important goals is a challenging process, and considerable motivation is required for personal goals to be met. The ability to exert effort towards achieving one's goals requires self-regulation, a skill which has been shown to predict important outcomes throughout the lifespan, including future unemployment and mortality (Daly, Delaney, Egan, & Baumeister, 2015). Traditionally, research into goal pursuit takes an intrapersonal perspective, with research focussing on the role that certain personality traits play in the process, but individuals are affected by the people around them, especially those to whom they are close. In this thesis, I will attempt to bridge the gap between the intra- and the inter-personal, by addressing the effects of both self-esteem (intrapersonal) and affirming relationships (interpersonal) on goal pursuit, a novel perspective which may have important implications for theory and practice alike. This

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thesis examines the possibility that the presence of affirming relationships may increase young people's willingness to exert effort to pursue their goals, and the role of self-esteem in enhancing their ability to cultivate such relationships.

The Self and Goal Pursuit

The notion of the self has always been central to the study of psychology, and a desire to expand and improve upon the current version of one's self has been theorised to be a prime motive underlying much of human behaviour (Carver & Scheier, 1990; Higgins, 1996). The concept of self refers to an individual's cognitive schema about the constellation of traits and inclinations they possess, which is thought to be derived from repeated categorisations of their own and others' behaviour (Markus, 1977). This conceptualisation of the self has formed a central component of a range of theories on the self and motivation, which act as the starting point for the studies in the present dissertation.

Possible selves. According to Markus and Nurius (1986), motivation derives from an ability to conceptualise possible future selves, and an aspiration to become more like desired possible selves and to avoid feared possible selves. As they put it, possible selves

> …derive from representations of the self in the past and they include representations of the self in the future. They are different and separable from the current or now selves, yet are intimately connected to them. Possible future selves, for example, are not just any set of imagined roles or states of being. Instead they represent specific, individually significant hopes, fears, and fantasies. (p. 954).

Thus, the concept of possible selves provides the cognitive link between the personalised notion of the self, which is based to a large extent on the past, and

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motivation for the future (Markus & Nurius, 1987). Possible selves therefore act as an evaluative tool in relation to the current self, and as a target that is then used as an incentive for goal-directed behaviour.

The nature of individuals' possible selves has also been the subject of much research, in particular in relation to how having certain possible selves may influence subsequent behaviour. Oyserman and colleagues have produced a number of studies illustrating that having clear academic possible selves increased the likelihood of middle school children in deprived areas of the United States doing well at school, especially if these expected possible selves were balanced with corresponding feared possible selves (Oyserman & Saltz, 1993; Oyserman & Markus, 1990). Similarly, Anderman and Anderman found that pupils who had positive academic future selves were more likely to show academic improvement between the 6th and 7th grades (Anderman & Anderman, 1999). These findings have been expanded upon in a growing body of research linking children's expected and feared possible selves, and the strategies to attain or avoid these, to various aspects of school-based achievement. In the UK, research on possible selves is less common, but in a qualitative interview study comparing adolescents attending a mainstream school and a pupil referrals unit (PRU), the excluded pupils were found to have less positive and more fragile possible selves (Mainwaring & Hallam, 2010), suggesting that the concept is transferrable.

Despite the optimism implied in these findings (improving possible selves leading to improved outcomes), the adoption of ambitious possible selves is not enough to ensure success. Oyserman and colleagues have proposed that socially deprived children often have high aspirations for their expected selves, but lack the necessary knowledge about how to reach them (Oyserman, Bybee, Terry, & Hart-Johnson, 2004). This can be likened to other research comparing socio-economically disadvantaged children and adolescents to their less disadvantaged counterparts, where a disconnect

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between aspirations and expectations (i.e. aspirations being higher than expectations) has been found to be more common (Boxer, Goldstein, DeLorenzo, Savoy, & Mercado, 2011).

Oyserman and colleagues used findings such as those outlined to inform the development of an intervention directed at triggering school-focused possible selves and linking these to behavioural strategies (Oyserman, Terry, & Bybee, 2002). The intervention was multi-faceted and involved changing the way the pupils related to their goals in everyday environments, which proved effective, but can be criticised for only being trialled on a relatively small scale (one school), and being biased towards the North American education system. Nevertheless, possible selves have been consistently shown to motivate effortful behaviour (e.g. Zhu, Tse, Cheung, & Oyserman, 2014).

Self-discrepancy theory. Also linking self-concept to motivation, Higgins and colleagues, in their self-discrepancy theory (Higgins et al., 1987), proposed that people are motivated to reduce self-discrepancies, or the distances between their current and their ideal selves, and attempt to behave accordingly. This motivation stems in part from the cognitive dissonance these discrepancies cause (Festinger & Carlsmith, 1959), and their emotional effects, with larger differences between the ideal and actual self leading to more negative emotions, and thus more motivation to reduce the discrepancies, and this has been supported empirically in a series of early experimental studies (Higgins, Bond, Klein, & Strauman, 1986).

They distinguished between two forms of desired selves: the ideal self (one's own ideal; the self one would like to become) and the ought self (one's moral notion of who one should be, and related duties and responsibilities). Based on this distinction, it was theorised that becoming aware of discrepancies between one's actual and ideal self would lead to feelings of dejection and disappointment, and conversely discrepancies between one's actual and ought self would lead to feelings of anxiety and agitation

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(Higgins et al., 1987). Of these, the dejection resulting from actual-ideal discrepancies were proposed to be most unpleasant, and often have the most influence on subsequent behaviour (Higgins, 1996).

According to their framework, the possible selves discussed by Markus and Nurius (e.g. 1987) could fall into either the *ideal* or *ought* domains, with these, in addition to the *actual* self, constituting the three domains of the self. The theory also posited that separate distinctions can be made according to standpoint, with individuals having constructs of ideal and actual selves that they themselves believe, and those that they personally believe others have for them (e.g. a mother's version of how they ought to be). Various combinations of discrepancies in domain and standpoint were thus theorised to result in differing negative emotions (e.g. guilt). In addition, individual differences in the accessibility and availability of certain types of discrepancies (based for instance on personal values or experiences) would influence the extent to which these would tend to influence emotions and behaviour (Higgins et al., 1987).

Research has generally supported the power of self-discrepancies to influence emotions and behaviour (e.g. Boldero & Francis, 2000; Higgins, Roney, Crowe, & Hymes, 1994). Many studies have combined the standpoint aspect, due to high correlations between the ideal and ought selves that people personally endorse and those that they believe others to endorse (Hardin & Leong, 2005; Higgins, Klein & Strauman, 1985). Similarly, there has been some controversy regarding the robustness of the distinction between of ideal and ought selves in their ability to predict distinct negative emotions, with this being less evident when the discrepancies in question are small in size (Philips & Silvia, 2005; Tangney, Neidenthal, Covert, & Barlow, 1998).

Self-discrepancy theory and the concept of possible selves are alike in their assertion that a vision of the current or actual self, as compared to an ideal or in some way different possible self, motivates people to pursue smaller-scale goals that could

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make the desired possible self more attainable, thus reducing self-discrepancies. They both help to explain why people often spend a lot of time and effort engaged in tasks that they do not enjoy or receive any immediate benefit from; for instance if they are able to link them to a desired self-relevant end state.

Self-determination theory. Although possible selves and related goals can take many forms, the literature has emphasised the importance of self-authenticity and self-determination when deciding which goals to pursue (e.g. Rogers, 1961). This has been summarised in Ryan and Deci's self-determination theory, a theory of human motivation, which also incorporates the importance of the self. They proposed that people are more likely to succeed in their goals if these goals are self-determined and represent their own ideals (intrinsic), rather than if goals are ascribed by others or by society (extrinsic) (Deci & Ryan, 1985). This is not to say that the two cannot be in line with each other, but that a sense of being in control of one's own path has been shown to be an essential component of human flourishing (Deci, Vallerand, Pelletier, & Ryan, 1991), and goals which are endorsed by the individuals themselves are more likely to be achieved (Sheldon & Elliot, 1998; 1999).

Self-determination theory also proposes the existence of three basic psychological needs, which may influence motivation, particularly if thwarted: competence, relatedness, and autonomy. According to self-determination theory, in order to flourish, humans must feel that these needs are met, and the extent to which they have been met influences people's ability to engage in effortful behaviour (Ryan & Deci, 2000). To this extent, the theory is concerned with establishing the optimal conditions in which individuals can grow and thrive, and also those that are likely to diminish these possibilities. Perhaps the most clearly visible and readily targeted factor is autonomy, with studies demonstrating the positive effects of increased autonomy on intrinsic motivation and resulting self-regulation, particularly in the context of

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education, where this need can easily be undermined (Flink, Boggiano, & Barrett, 1990; Utman, 1997). Similarly, parents who encourage autonomy have been shown to have more motivated children than those who are controlling (Grolnick, Deci, & Ryan, 1997).

Self regulation. The process by which people are able to devote the needed exertion towards achieving goals related to their desired possible selves has been termed self-regulation (Bandura, 1991), and involves overriding urges to engage in behaviours that result in short-term rewards (e.g. eating an ice cream) in favour of behaviours that help to achieve long-term goals (e.g. going to the gym). In Muraven and Baumeister's words, it is the "exertion of control over the self by the self" (Muraven & Baumeister, 2000, p. 247). Self-regulation is based on self-reflection, and the monitoring of self-relevant feedback, via comparisons to one's own ideal, and ideals proposed by others. The ability to self-regulate effectively and to successfully pursue one's goals has consistently been shown to lead to improvements in mood, happiness and subjective well-being (Brunstein, 1993; Brunstein, Schultheiss, & Grässmann, 1998; Emmons & King 1988; Sheldon Elliot, Kim, & Kasser, 2001), and it therefore seems clear that is a skill that should be cultivated and encouraged.

A large literature endorsed by Baumeister and colleagues among others has likened the self-regulatory system to a muscle, in that it's capacity can be depleted, but it can also be trained or focused to act more efficiently (Baumeister & Vohs, 2007; Muraven & Baumeister, 2000). In this depiction, self-regulation is a finite resource, and exertion in one domain can hinder the ability to exert in others. It seems clear that in order to pursue one's desired possible selves and reduce self-discrepancies, self-regulation is a key skill to enhance. Indeed, a national cohort study in the UK found that low self-control (a skill needed to effectively self-regulate) predicted unemployment across four decades, even when controlling for intelligence, social class, and gender

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(Daly et al., 2015). In order to enable individuals to self-regulate more efficiently, it may be necessary to utilise social surroundings, and most importantly, close relationships.

The Social Self: Relationships and Goal Pursuit

Most research concerning the self and goal pursuit, perhaps understandably, focuses on the self in isolation. However, there is a growing body of research that aims to investigate the ways in which social relationships influence individuals' goal-directed behaviour and ultimately their well-being.

The notion of a socially-influenced self is not a new one. As early as the 19th century, William James (1890) emphasised the interdependence between self-concepts and interpersonal experience, proposing that individuals tend to act differently depending on their interaction partners. This notion of a somewhat fluid, context-dependent self was expanded on by Cooley in his description of the 'looking-glass self', referring to the way in which the self is inferred from and reflected by the reactions of others (Cooley, 1902). The role of "inner audiences" has long been theorised to be of central importance to the way we feel and ultimately behave (Horney, 1946; Moretti & Higgins, 1999). Indeed, a great deal of research has suggested that our sense of self, and particularly our judgements and emotions concerning the self, are fundamentally driven by social factors (e.g. Baldwin, 1992), and that a sense of belonging and connection is fundamental to human motivation (e.g. Beaumeister & Leary, 1995, Deci & Ryan, 1985). Nevertheless, research on the way in which the sense of self influences behaviour, most commonly in the form of self-regulation, tends to take an intrapersonal perspective.

The link between having a supportive social network and positive health outcomes (often attributed to effective self-regulation) is well-established. In a meta-

analysis, DiMatteo (2004) found that people receiving strong social support were better able to adhere to medical regimens, which require self-regulation. Similarly, a consistent link has been revealed between social integration and positive health behaviours such as regular sleeping patterns, healthy eating and exercise patterns, and less negative health behaviours, such as smoking and heavy drinking (Uchino, 2004). These advantages have considerable consequences. When examining the link between relationships and mortality, Holt-Lunstad and colleagues' (2010) meta-analysis of 148 studies found that people with strong relationships had a 50% greater likelihood of survival, even when controlling for gender, age, initial health status, and cause of death. This relationship was strongest when the predictor took the form of a complex measure of social integration rather than binary variables such as living alone versus with others (Holt-Lunstad, Smith, & Layton, 2010). Interestingly, the negative effects of social isolation have not been found to differ depending on whether the measure of isolation in question is objective or subjective, indicating that the most important factor is whether individuals perceive themselves to be isolated or not (Holt-Lunstad, Smith, Baker, Harris, & Stephenson, 2015).

Findings such as these support the notion that close relationships bolster people's abilities of self-regulate, which underlies most health-related behaviour. This is further supported by experimental research that has manipulated social feedback, in which participants who experience social rejection display more self-destructive behaviour such as foolish risk taking and procrastination, when attempting to complete a given task (Twenge, Catanese, & Baumeister, 2002; 2005). A similar study showed that participants who were primed with thoughts about close family members performed better at language and maths tasks, and ate less unhealthy food when it was offered (Stillman et al., 2009). Thus, it appears that social acceptance and having positive

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relationships bolsters one's abilities to exert effort towards achieving short- and long-term goals.

The mechanisms behind the positive effects of social relationships on self-regulation and goal pursuit are undoubtedly complex and varied depending on the context. One way in which relationship partners may prove helpful is through a process referred to as goal contagion, whereby individuals automatically infer the goals that motivate others' actions, and subsequently pursue those goals themselves (Aarts, Gollwitzer, & Hassin, 2004). Another process at work is likely to be social comparison, in that individuals tend to compare their own goal progress to that of close others, and this acts as a source of motivation (Pinkus, Lockwood, Schimmack, & Fournier, 2008).

Aspects of the ways in which relationships influence self-regulation may also be unconscious, as suggested by subliminal priming studies (e.g. Fitzsimons & Bargh, 2003; Fitzsimons & Shah, 2005; Shah, 2003). Unlike social comparison or goal contagion, which to a large extent involve conscious reflection on one's goal pursuit, subliminal priming studies show how the mental representation of relationship partners may unconsciously affect motivation, especially when those representations become salient. For instance, one study found that subliminally priming participants with the names of significant others who would want them to do well in a given task influenced their subsequent persistence and performance on said task (Shah, 2003). Results such as these suggest that having close others who are supportive of one's important goals may chronically increase the salience of these goals to individuals, thereby increasing the likelihood that they will be able to pursue them successfully in the long term.

Of course, in order for processes such as those described to occur, individuals must first cultivate supportive and close social relationships, and it seems likely that certain traits would make this prospect easier than others. This is one of the central tenets of the current dissertation, and will be returned to in a later section of this chapter.

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The Michelangelo Phenomenon

A prominent theoretical model that attempts to describe the ways that relationships impact the self and self-relevant goals is the Michelangelo Phenomenon (Drigotas, Rusbult, Wieselquist, & Whitton, 1999). The model is named after the sculptor Michelangelo Buonarroti, who is said to have described the art of sculpting as a process in which the artist reveals the "ideal form" which has lain dormant within a block of marble (Gombrich, 1995). This notion of an ideal self which can be realised only with the help of a close relationship partner forms the basis of the model, which takes an interpersonal perspective on self-regulation and goal pursuit.

As illustrated in Figure 1.1, the Michelangelo model proposes that close relationship partners help each other move towards their ideal selves through the process of relationship affirmation (Rusbult, Finkel, & Kumashiro, 2009). Affirmation involves the partner perceiving and behaving as if the individual in question already has attributes related to their ideal self, and supporting their quest to move closer to this ideal, by helping them (practically and emotionally) to achieve the goals needed to become more like (closer to) their ideal self. This can be attributed in part to behavioural confirmation principles, whereby the partner behaving as if the individual has certain attributes, or having positive expectations for their behaviour, makes it more likely for these to become a reality (Downey et al., 1998; Murray et al., 1996). Within the Michelangelo model, "…individuals develop beliefs regarding the people with whom they interact and tend to behave in ways that are congruent with their beliefs about that person" (p. 60, Drigotas, 2002). For instance, if John believes that Mary is a gifted painter, and encourages her to pursue her creative goals, she is likely to become more accomplished, and move closer towards her ideal self as a respected artist. The

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current thesis proposes that relationship affirmation is the key process behind the positive effects of social relationships described in the previous section.
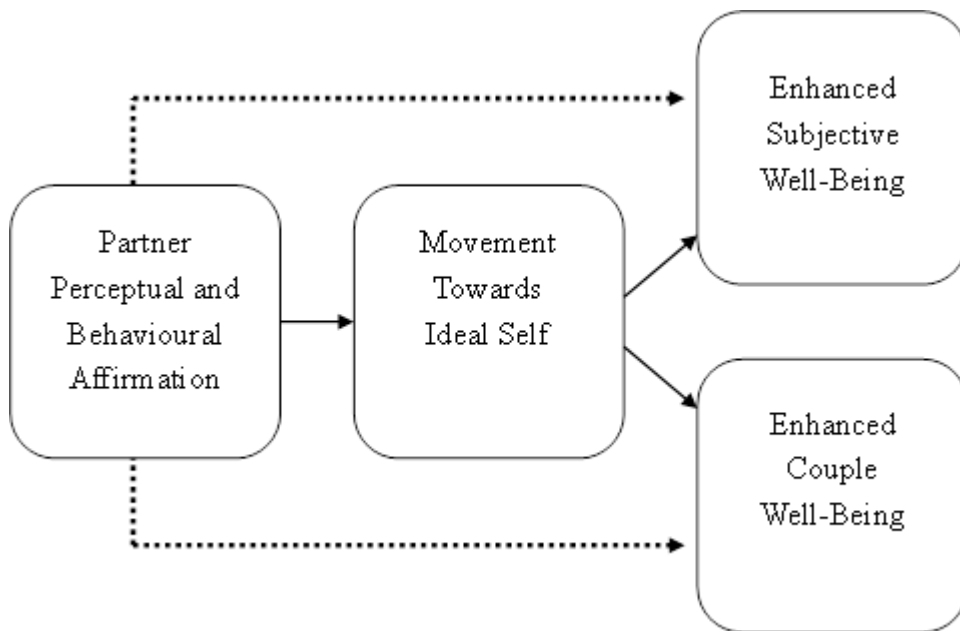
Figure 1.1. Model illustrating the role of relationship affirmation in the original Michelangelo Phenomenon.

The Michelangelo Phenomenon was built on well-established grounds, combining established perspectives in a novel way. Its theoretical underpinnings are derived from three traditions: interdependence theory, self-discrepancy theory, and behavioural confirmation principles.

Interdependence theory (Kelley & Thibaut, 1978) postulates that those relationships most likely to cause behavioural change are those where the individuals involved are highly interdependent on each other (Rusbult, Kumashiro, Coolsen, & Kirchner, 2004). It is logical that those individuals with whom we interact most often are likely to be the ones who most influence our behaviour. According to this theory, the power dynamics and mutual dependence are key to predicting the extent to which partners in an interaction are likely to influence each other's behaviour. Thus, in the

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Michelangelo model, the closer and more interdependent the relationship in question, the more likely relationship affirmation is to elicit movement towards the ideal self.

The Michelangelo model's notion of an ideal self and the perceived closeness to this ideal also draws on self-discrepancy theory (described above; Markus, & Nurius, 1986). Individuals are theorised to be motivated to reduce the self-discrepancy between their actual and ideal selves by becoming more similar to their ideal self. The model uses the same distinction between the ideal and ought self, stressing the role of the personal ideal rather than the moralistic ought self as central to the dynamics involved.

Finally, the model incorporates behavioural confirmation principles to help explain the ways in which close relationship affirmation influences the recipient's behaviour. As the name suggests, and alluded to earlier, behavioural confirmation refers to the ways in which other people's opinions about an individual may come through in their behaviour, eliciting a consistent response from the individual themselves (Snyder & Swann, 1978). A substantive body of research has shown this phenomenon in action, and the results can have important consequences (Kassin, Goldstein, & Savitsky, 2003), but the principles also apply in everyday situations, where they may be less easily detected, such as within close relationships.

Empirical support. The Michelangelo model was first proposed alongside four empirical studies linking perceived partner affirmation to increased movement towards the ideal self, as well as to enhanced relationship quality and stability (Drigotas et al., 1999). These original studies distinguished between two forms of relationship affirmation: perceptual (the partner *perceives* the individual to be close to their ideal), and behavioural (the partner *behaves* as if the individual already has the attributes of their ideal), proposing that behavioural affirmation is more likely to lead to movement towards the ideal self. For the purpose of the current discussion, these will be referred to

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jointly as "relationship affirmation", because the constructs have been found to be highly correlated and difficult to disentangle.

The studies demonstrated that relationship affirmation, in which partners promote traits associated with the individual's personal ideal self, accounted for more variance in both movement towards the ideal and relationship quality than did normative positivity, in which partners perceived individuals as similar to the standard positive attributes valued by the general population. This supports previous research on the importance of intrinsic (versus extrinsic) motivation, self-determination, and self-authenticity (e.g. Deci & Ryan, 2002; Rogers, 1961; Ryan & Deci, 2000). The studies also attempted to test the mediation model demonstrated in Figure 1.1, but the results of this were not in full support of the mediation, with only the effect of behavioural (and not perceptual) affirmation being partially mediated by movement towards the ideal self (Drigotas, Rusbult, Weiselquist, & Whitton, 1999).

Alongside the Michelangelo Phenomenon, and again related to self-determination principles, the Pygmalion phenomenon describes a superficially similar, but fundamentally different process, in which a partner affirms their own version of the individual's ideal self (i.e. how they think they individual should aspire to be), and this has been shown to have negative outcomes (e.g. Rusbult et al., 2009). The present thesis does not consider this phenomenon, however.

Both non-experimental and experimental research paradigms have consistently supported the relevance of the Michelangelo model's concept of affirmation in romantic relationships. In one study, couples were filmed talking about each partner's important personal goals. The recordings were then coded for affirming behaviours by the participants themselves and by independent researchers, and both measures of affirmation significantly predicted the closeness participants felt to their own ideals, and their individual and couple well-being at the time and at a later time point (Rusbult,

Kumashiro, Coolsen, & Kirchner, 2004). This finding demonstrates the pervasive nature of relationship affirmation, in that it is not only in the mind of the receiver, and cannot be attributed solely to their own characteristics or perception biases. However, the mediation between relationship affirmation and subjective well-being by movement towards the ideal self was not tested longitudinally in this study, as both outcome measures were assessed simultaneously.

In another study, participants were asked to have a brief interaction with a previously unknown individual, each introducing themselves and getting acquainted with one another. They were then given information about their interaction partner's first impressions of them, and this varied according to the condition to which they had been randomly assigned. One group were told that their partner perceived them as similar to their ideal self (details of which had been supplied earlier), one were told that they were perceived as possessing traits they were indifferent towards, and the final group were told that their partners perceived them as similar to their feared selves. When asked about hypothetical future interactions, the members of the first group anticipated liking their partner more, and having more enjoyable interactions (Kumashiro, Wolf, Coolsen, & Rusbult, 2004). This further supports the importance of affirmation for relationship satisfaction and well-being.

In summary, a considerable body of research supports the Michelangelo Phenomenon, and in particular the role of relationship affirmation, which takes a unique inter-personal perspective on the self, goal pursuit, and well-being. However, the research is largely limited to romantic relationship affirmation in North American university students. In addition, most studies look at the relatively ambiguous concept of movement towards the ideal self. Although this is undoubtedly central to the model, and a useful measure, it would be beneficial to combine it with other more tangible measures of movement towards the ideal self, or components of this ideal. Also, the

mediating role of movement towards the ideal self has not been consistently supported, although the importance of relationship affirmation for positive outcomes has been shown across multiple studies. Furthermore, although some early research has touched upon the longitudinal effects of relationship affirmation on movement towards one's ideal self (Drigotas et al., 1999; Rusbult et al., 2004), most studies have been cross-sectional in nature, leaving a clear need for research that can further clarify the effects of relationship affirmation over time, and more clearly illustrate the directionality of the link between affirmation and pursuit of the ideal self.

The studies in this dissertation attempt to address this gap in the literature, as well as to further support and expand the model by linking it to the research described in the previous section concerning the positive effect of supportive relationships on self-regulation and goal pursuit. Specifically, the predictive role of relationship affirmation is examined, both in terms of behavioural and emotional outcomes.

The Role of Self-Esteem

So far this discussion has focussed primarily on the ways in which possible selves and relationships can influence goal pursuit and self-regulation, without considering the pre-existing traits of the individual in question. Although there are many traits that could play a role, perhaps the most interesting of these is self-esteem, or the subjective value an individual attributes to herself as a person (James, 1890; Rosenberg, 1965).

The nature of self-esteem. Psychologists have distinguished between various forms of self-esteem, including contingent vs. non-contingent (e.g. Crocker & Wolfe, 2001); authentic vs. false (Deci & Ryan, 1995); explicit vs. implicit (Greenwald & Farnham, 2000); stable vs. unstable (Kernis & Waschull, 1995), and global vs. domain-specific (Dutton & Brown, 1997). These differing aspects of self-esteem are related to disparate outcomes, with the general consensus being that it is beneficial for self-esteem

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to be non-contingent, authentic, and stable (not dependent on external factors, but coming from within), as this enables individuals to be less reliant on others and susceptible to negative emotions following perceived failures (Grolnick & Ryan, 1989).

Nevertheless, these are all variations on the concept of the value ascribed to the self, and the current thesis uses the over-arching concept of global self-esteem, which is thought of as an individual difference variable, similar to personality traits, and is assumed to represent an authentic evaluation of the self. This value necessarily fluctuates slightly over time (especially for those with low self-esteem; Campbell, 1990; Campbell et al., 1996), depending on recent events, hormones, etc., but has been found to be relatively stable within individuals (Morin, Maïano, Marsh, Nagengast, & Janosz, 2013). Indeed, recent large-scale longitudinal cohort studies using trait-state models found that self-esteem exhibited a great deal of stability over time, regardless of gender or age group (Donnellan, Kenny, Trzesniewski, Lucas, & Conger, 2012; Kuster & Orth, 2013). These findings lend support to the notion of self-esteem as trait, and its use as a predictor variable in empirical research, with its stability being comparable to other widely used "Big Five" personality traits such as neuroticism and extraversion (Fraley & Roberts, 2005).

Although the current work focuses on global trait self-esteem, contingencies of self-worth are also taken into account. Unlike the distinction between contingent vs. non-contingent self-esteem, this perspective assumes that all self-esteem is contingent, but that the variation lies in which domain individuals base their self-worth on. Thus, the domains on which self-worth is most contingent are both sources of motivation and areas of psychological vulnerability and are important determinants of behaviour (Crocker & Knight, 2005).

The concept of contingencies of self-worth can be examined alongside that of self-esteem, and has been used as a potential moderator of the influence of certain

situations on self-esteem and of self-esteem on behaviour, particularly in relation to self-worth being contingent on academic success in an education context (Crocker, 2002; Crocker & Luhtanen, 2003). A scale measuring contingencies of self-worth in college students was developed by Crocker and colleagues, specifying seven domains: academics, appearance, approval from others, competition, family support, God's love, and virtue, and has been used independently and alongside self-esteem in relation to behavioural outcomes. In their original study, Crocker et al. found that the contingencies students endorsed predicted their use of time during their first year of university (Crocker, Luhtanen, Cooper, & Bouvrette, 2003). The current thesis uses the contingencies of self-worth construct alongside global self-esteem, to examine whether these may affect the interplay of factors influencing motivation.

Self-esteem as a predictor of positive outcomes. Self-esteem has received a lot of attention, not only in academic circles, but also in popular culture, with more than 2000 self-help books, audio-recordings, and child-rearing manuals developed to enhance self-esteem (Branden, 1994). In 1986, the California State Legislature passed a bill creating the "California Task Force to Promote Self-Esteem and Personal and Social Responsibility". The creation of a task force designated to improving society by enhancing people's self-esteem, and the dedication of an entire self-help genre to the importance of cultivating it, illustrates the extent to which self-esteem has been regarded as an essential attribute to success. The empirical evidence that self-esteem is beneficial is not clear-cut, however.

The research linking self-esteem to success in various domains is mixed. High self-esteem has been associated with having more internal locus of control beliefs (Nurmi & Pullainen, 1991), greater goal progress (Pinquart et al., 2004), and higher probability estimations of future goal attainment (Malmberg, 2002). In terms of emotional health, self-esteem has been found to act as a protective buffer against future

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mental health problems in victimised children (Hershberger & D'Augelli, 1995; Olweus, 1993). However, in an influential review in 2003, Baumeister and colleagues claimed that self-esteem is "…not a major predictor or cause of almost anything" (Baumeister, Campbell, Krueger, & Vohs, 2003, p. 37). In contrast, a more recent review of the development of self-esteem came to very different conclusions, stating that longitudinal studies in the past decade have found "…strong evidence that self-esteem is predictive of a person's success and well-being in important life domains, even after taking into account prior levels of self-esteem and success" (Orth & Robins, 2014, p. 384). This contradictory evidence points to the plausibility of a more nuanced picture, and the possibility of a mediation relationship.

A domain where self-esteem has more consistently been linked to positive outcomes is that of social relationships. People with low self-esteem have been shown to feel lonelier (Levin & Stokes, 1986) and more socially isolated (Hobfoll, Nadler, & Leiberman, 1986) than their high self-esteem counterparts, as well as holding lower expectations for future social interactions (Sommer & Baumeister, 2002). The directionality of these relationships was shown to support self-esteem as an antecedent rather than consequence of social support, in a recent methodologically robust cohort study, which pitted the two models against each other (Marshall, Parker, Ciarrochi, & Heaven, 2014).

These findings may in part be due to people with low self-esteem engaging in potentially destructive behaviours when initiating or maintaining relationships. In terms of romantic relationships, Murray and colleagues found that individuals with low self-esteem were more likely to question their partner's feelings for them, both internally and in conversations (Murray, Holmes, & Griffin, 2000), and that people with high levels of self-esteem were more able to avoid generalising negative partner behaviour (Murray, Rose, Bellavia, Holmes, & Kusche, 2002). Similarly, people with high self-

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esteem have been found to withdraw from their partners when they are perceived negatively, whereas those with low self-esteem withdraw when partners see them positively (Cast & Burke, 2002; Swann, De La Ronde, & Hixon, 1994).

These seemingly self-destructive behaviours may be due in part to a form of self-verification, whereby individuals have a negative view of themselves, and therefor seek to verify this view in the opinions of others. According to this logic, in a similar way to the behavioural confirmation principles discussed earlier, pre-existing preconceptions (this time on the part of the individual rather than those around her) influence social interaction, often leading to a vicious cycle of negative experiences.

This self-verification bias has been shown in peer relationships in university students also, making it more applicable to the current discussion. In one study, university students who had negative opinions of themselves (low self-esteem) were more likely to ask to move rooms if paired with a room-mate who perceived them positively, thus verifying their own self view, whereas the opposite was true for students who had positive self-views (Swann & Pelham, 2002). It has been theorised that a desire for a consistent world view emerges from very early on, with research showing that by mid-childhood children display a preference for others' evaluations of themselves that confirm their pre-existing self-views, regardless of the valence of those views (Cassidy, Ziv, Mehta, & Feeney, 2003). Within relationships, seeking validation of negative self-views can lead to negative consequences, both in terms of the type of interactions that are sought out, and the prospects of maintaining supportive relationships.

Regardless of the underlying causes of the link between self-esteem and supportive relationships, recent findings have confirmed both its existence and its directionality. From these findings it seems plausible that self-esteem levels have an influence on the Michelangelo model, with individuals with high self-esteem finding it

easier to form and maintain supportive affirming relationships, and thus moving towards their ideal selves, and that relationship affirmation is a mediator between self-esteem and measures of goal pursuit and achievement.

Adolescence and the Michelangelo Phenomenon

When it comes to researching matters of the self, adolescence has always been an area of interest, because this is thought to be when people establish their identity, and choose which versions of their possible selves they wants to hold on to, after a period of trial and error (Erikson, 1959; Rogers, 1961). In this way, goal pursuit during adolescence is theorised to be a self-directing and self-defining process in which individuals start to construct a narrative of the self (Nurmi, 1991; 1993; Markus & Nurius, 1986). It follows from this that adolescence is a period when the ideal self, and the constellation of traits and skills it is comprised of, is being formed and pursued with most concentration.

There is a considerable body of research concerning goal pursuit in adolescence, partly because cognitive beliefs become reliable predictors of related behaviours beyond the middle childhood period (Davis-Kean et al., 2008). The most often reported goals in adolescent populations tend to be education and occupation related (Lanz et al., 2001). This is likely due to cultural norms, which from adolescence through early adulthood follow the general time pattern of 1) education, 2) occupation 3) family, and 4) material goals (Nurmi, 2001), but these are thought to vary according to culture and between individuals to some extent. Nevertheless, adolescence, and specifically the transition period between sixth form and further education or employment, is a particularly goal-driven time, when the majority of pupils tend to be focussed on their futures and possible ideal selves.

As briefly mentioned earlier in the section on general goal pursuit, Oyserman and colleagues have conducted a series of studies with young adolescents, including the development of an intervention, that centre around the concept of possible selves and cultural identity. In her work, she found that having academic possible selves as well as specific paths towards these possible selves were predictive of better school outcomes over time, and that these effects were enhanced if said possible selves were balanced with related feared possible selves (Oyserman & Markus, 1993; Oyserman & Markus, 1990; Oyserman, Bybee, & Terry, 2006; Oyserman et al., 2004; Oyserman, Johnson, & James, 2011; Oyserman et al., 2002; Zhu et al., 2014). It seems possible that bridging the link between having possible selves and achieving related goals are the presence of affirming relationships, which may enable the young people to discuss their ideals, and plan ways in which to achieve them, knowing that people other than themselves believe that they could become a reality. This in turn could help them find the motivation and effort it requires to self-regulate and put in the necessary hours of revision to do well academically and achieve their goals.

The importance of doing well at school is well established, and never more so than at the end of compulsory education, when in the UK school system final examination results determine what paths are open to young people. In the US, adolescents who do not obtain a high school diploma (equivalent to four A-C GCSE grades in the UK) earn less in later life (Rouse, 2005), have poorer health (Muenning, 2005), are more likely to be involved in crime (Moretti, 2005), and are more reliant on public welfare assistance (Magnuson & Waldfogel , 2005).

Epidemiological studies show a similar pattern. Low levels of formal education are related to poor health, lower life expectancy, and lower well-being (Marmot & Wilkinson, 2006). Perhaps surprisingly, education is a better predictor of these negative outcomes than other measures of socio-economic status such as income and occupation

(Easterbrook, Kuppens, & Manstead, 2015). These findings illustrate the importance of goal pursuit in adolescence in particular.

The Michelangelo model has not yet been applied to an adolescent population, because it has mostly been used in reference to romantic relationships. The current thesis proposes that it can be extended for use in adolescents, with the relationships in question being all close relationships, rather than one particular romantic connection. Instead of the extent to which one's partner is affirming, the question thus becomes the extent to which one's close relationships (with parents, peers, or teachers) are affirming.

Although the Michelangelo model has not been researched with regards to adolescents, the effect of social relationships on child development is a popular topic for research, and this has extended to look at the influence of social factors on academic goal pursuit. For example, one study looking at the effectiveness of the Chicago School Readiness Project, a multicomponent teacher and classroom focussed intervention, found that child-teacher relationship quality mediated the link between the intervention and children's ability to self-regulate (Jones, Bub, & Raver, 2013).

Throughout adolescence, peer relationships become increasingly important, with peers becoming more influential than family in many cases (Lockwood, Kitzmann & Cohen, 2001). These relationships can have both positive and negative effects. Exposure to delinquent peers has been shown to increase adolescents' own reported antisocial behaviour. However, for violent behaviour, having a related feared possible self was shown to moderate this relationship, acting as a protective buffer against adopting violent behaviour themselves (Pierce, Schmidt, & Stoddard, 2015). On the other hand, peer support, positive expectations and prosocial behaviour modelling have been linked to greater prosocial goal endorsement at school (Wentzel, 1994; Wentzel, Filisetti, & Looney, 2007), which is in line with the Michelangelo model.

Parental effects on adolescent academic achievement have been well documented. There is considerable evidence suggesting that having parents with high aspirations increases adolescents' own aspirations (Bandura et al., 2001; Behnke et al., 2004; Majoribanks, 1997; Schoon & Parssons, 2002). Relatedly, Majoribanks (2003) found that parents' high aspirations strengthened the link between adolescents' aspirations and their educational outcomes, and Malmberg and colleagues (2005) found that parental beliefs about the likelihood of their children achieving their goals were related to the extent to which adolescents endorsed the goals. Findings such as these suggest that the Michelangelo Phenomenon, and particularly relationship affirmation, may lie behind the positive effects of having supportive parents.
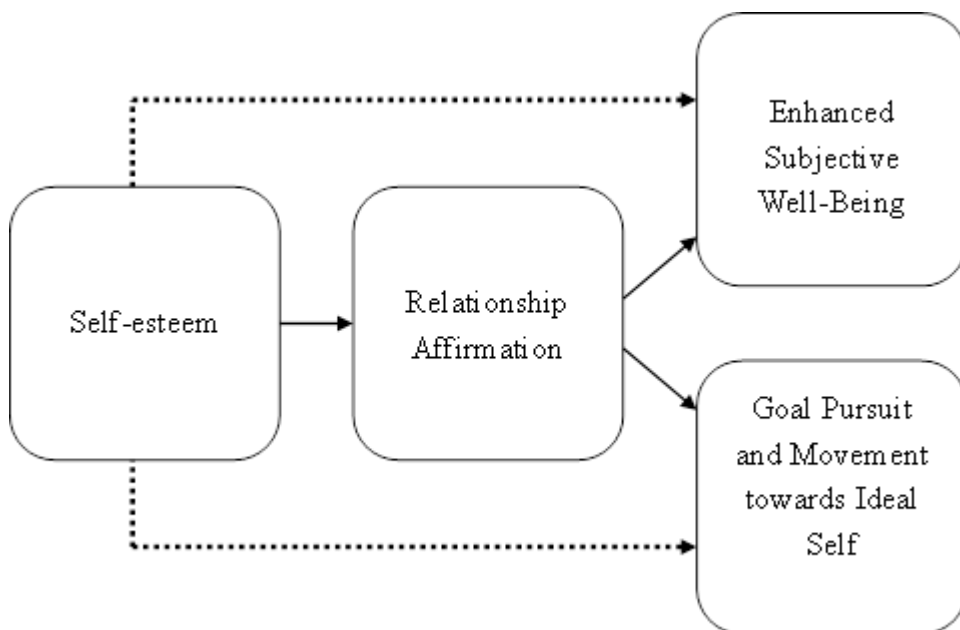
Figure 1.2. Model illustrating hypothesised effects of self-esteem and relationship affirmation on goal pursuit motivation, ideal self movement and well-being in proposed model.

Research Overview

In this thesis, I will attempt to bring together the disparate literature discussed, in an effort to clarify the complex processes that contribute to the pursuit of possible

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selves and important related goals. The way in which having affirming relationships can be beneficial for motivation is the central tenet, and the role of self-esteem in increasing the likelihood of forming and maintaining such relationships is examined. Figure 1.2 illustrates the hypothesised model that is tested in the studies that follow. The focus is mainly on an adolescent population, for whom goal achievement or failure have arguably the most far-reaching consequences, and where findings could be utilised to inform interventions in the future.

The Michelangelo Phenomenon is a useful framework that bridges the gap between the intra- and the interpersonal. The current dissertation attempts to extend the model's concept of relationship affirmation to include relationships other than romantic couples, and to an adolescent population, with particular reference to academic possible selves (goals). In addition, the role of self-esteem in the pursuit of these goals is investigated, and a mediation model whereby relationship affirmation mediates the relationship between self-esteem and goal pursuit / academic achievement is tested. With the Michelangelo model as a backdrop, the thesis focuses on the concept of relationship affirmation, and its mediating role between self-esteem and goal pursuit, and ultimately movement towards the ideal self.

In the first empirical chapter, Chapter 2, I will apply the Michelangelo Phenomenon to non-romantic relationships to determine whether relationship affirmation, the central tenet of the model, is a motivating force in all relationships, as opposed to only romantic interactions. In this correlational study of undergraduate students, the predictive role of relationship affirmation and self-esteem are examined in relation to goal pursuit and life satisfaction, and a new model explaining the process by which self-esteem and affirmation affect motivation to pursue one's goals is tested.

Chapter 3 builds upon the previous chapter, and applies the proposed model to adolescents in their final years of school. The goals in question necessarily focus to a

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greater extent on school-related outcomes, and the ways in which relationship affirmation and self-esteem interactively influence motivation in this domain, and this is further extended in the Chapter 4, where more concrete examination-related outcomes will be considered in a sample consisting of mostly the same pupils at a later time point.

In Chapter 5, the role of relationship affirmation in enhancing motivation will be examined over time, by focusing on relations between data from the first time point, and a third and final follow-up with these same pupils. This will give an indication of the directionality of the effects previously found, and allow firmer conclusions to be drawn regarding the interplay between self-esteem, relationship affirmation and important goal pursuit in adolescence.

Finally in Chapter 6, the findings from all four empirical chapters will be summarised and discussed together in light of previous research and in relation to the a priori hypotheses. The discussion will include a consideration of the strengths and weaknesses of the research, as well as possible avenues for future research on relationship affirmation.

Chapter 2 : The Michelangelo Phenomenon and Self-Esteem in University Students: Is Relationship Affirmation Important in Non-Romantic Relationships?

Introduction

The Ideal Self, Goals, and Motivation

An individual's ideal self can be seen as a mental representation of the assemblage of personal traits, skills and achievements that the individual would ideally like to possess, which then acts as a powerful motivational force (Higgins, 1987; Markus & Nurius, 1986; Rogers, 1961). In order to become, or move towards, one's ideal self, one must work towards accomplishing relevant smaller-scale goals that are related to aspects of this ideal self. Like possible selves, goals have been theorised to act as motivational forces that guide behaviour (Nurmi, 1997; Massey, Gebhart, & Garnefski, 2008). Studies on adults and undergraduates have shown that successful goal pursuit is associated with higher levels of well-being (e.g. Affleck et al., 1998; Brunstein, 1993; Harris, Daniels, & Briner, 2003; King et al., 1998), illustrating the importance of understanding the processes involved. At the same time, research has consistently demonstrated how much time, energy, and effortful self-regulation is required for successful goal pursuit (Baumiester et al., 1998; Hagger et al., 2010; Hoffman, Vohs & Baumeister, 2012).

The question then arises as to what enables some individuals to persist, achieve their goals, and move towards their ideal selves, and others to be less inclined to do so. Part of the answer to this question may be found in the presence or absence of certain types of supportive inter-personal relationships. The current study aimed to explore this possibility by applying the Michelangelo model, in which close relationship affirmation

enhances movement towards the ideal self, to a new population (undergraduate students), as well as looking at the role self-esteem may play in relation to the model.

The Michelangelo Phenomenon and Self-Esteem

The Michelangelo Phenomenon, as described in Chapter 1, and illustrated in Figure 1.1, refers to the process by which a close relationship partner is able to help an individual move towards their ideal self by achieving relevant goals, which in turn improves both individual and couple well-being (Drigotas, Rusbult, Wieselquist, & Whitton, 1999). As shown, this occurs through the process of relationship affirmation, in which the partner perceives and behaves as though the individual already possesses the characteristics of their ideal self, and so shows full confidence in their ability to achieve the required goals (Rusbult et al., 2009). The original researchers distinguished between perceptual affirmation (partner perceiving individual as possessing characteristics of ideal self) and behavioural affirmation (partner behaving in ways consistent with individual possessing characteristics of ideal self). However, the two forms of the construct are difficult to disentangle due to being very highly correlated, so as previously mentioned these will be combined into one overall affirmation measure for this and the remaining studies undertaken in this thesis.

In previous research on the Michelangelo Phenomenon, the paradigm has mostly been applied to romantic couples, in part because of the high levels of inter-dependence found in such relationships (Kelley & Thibaut, 1978). The current study aimed to extend the paradigm to non-romantic relationships, specifying only that the relationships in question be with close others. It seems likely that for first year undergraduates in particular, relationships other than romantic connections are likely to be as, if not more, inter-dependent, such as relationships with house-mates or parents. Therefore the study sought to ascertain whether relationship affirmation from any form

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of close relationships experienced by undergraduate students was related to the positive

outcomes shown in previous research with romantic couples (e.g. Rusbult, Coolsen, et

al., 2009): ideal self movement, goal pursuit, and well-being (life satisfaction).

The Michelangelo Phenomenon and Self-Esteem

One of the most often studied aspects when it comes to research into self

processes is self-esteem, or the value an individual ascribes to him- or herself. Self-

esteem has often been linked to goal achievement and life satisfaction (e.g. Román,

Cuestas, & Fenollar, 2008), although these findings, especially in relation to

achievement, are controversial (Baumeister et al, 2003). However, when it comes to the

link between self-esteem and positive social outcomes, findings are more consistent.

High levels of self-esteem have been shown to predict social social support over time,

rather than the other way around (Marshall et al., 2014). Self-esteem has also been

associated with behaviours that encourage the formation and maintenance of successful

relationships (Murray et al., 2002; Keefe & Berndt, 1996; Lakey, Tardiff, & Drew,

1994), and it has been suggested that having low self-esteem reduces the likelihood of

undergraduates seeking out supportive friendships with people who view them

positively (Swann & Pelham, 2002). It seems likely therefore, that self-esteem increases

the likelihood of relationship affirmation occurring.

The findings discussed made the inclusion of self-esteem in the current study a

logical step, addressing a gap in the literature to date. Based on this premise, the study

aimed to test the hypothesis that self-esteem enhances people's ability to form and

maintain affirming relationships, which then improve their ability to successfully pursue

their goals and move towards their ideal self. A mediation model was thus tested

whereby relationship affirmation mediated between the positive association between

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self-esteem and various measures of goal pursuit and life satisfaction. The hypothesised model is illustrated in Figure 2.1.
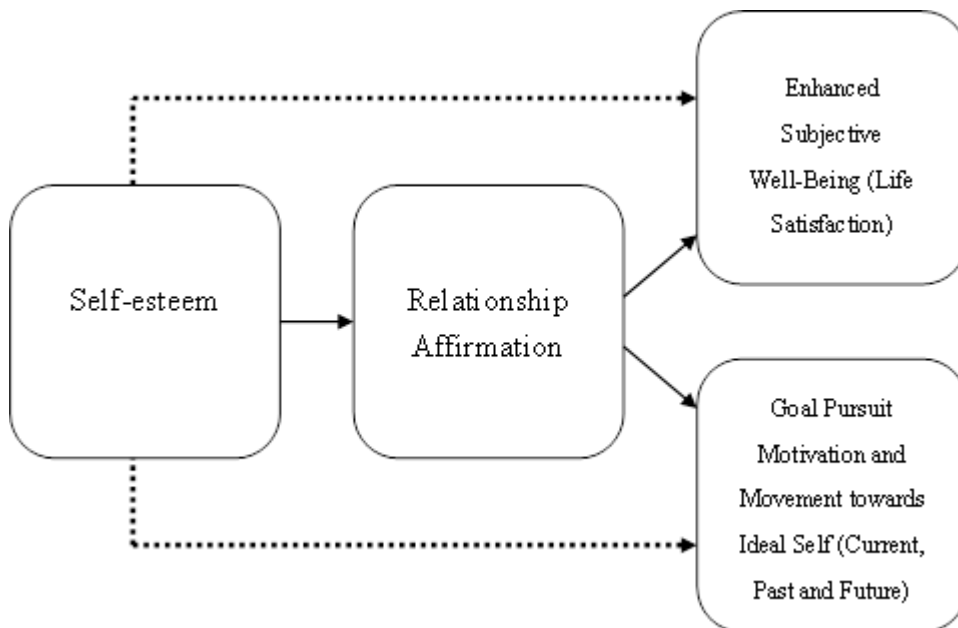
Figure 2.1 Model illustrating hypothesised effects of self-esteem and relationship affirmation on goal pursuit motivation, ideal self movement and well-being tested in current study.

Research Overview

Based on the theory outlined above, the current study aimed to ascertain whether the relationship affirmation construct, which underlies the Michelangelo Phenomenon, could be applied to relationships other than (but including) romantic duos, and whether relationship affirmation mediated the relationship between self-esteem and ideal self movement / goal pursuit. Unlike that used by the original researchers, the perspective adopted in the current thesis does not include ideal self movement as a mediator between relationship affirmation and life satisfaction, because relationship affirmation was considered the predictor of interest, and the focus of the thesis. Furthermore, relationship affirmation was hypothesised to directly predict subjective well-being,

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rather than via movement towards the ideal self as mediator, as seen by comparing Figure 1.1 and Figure 2.1.

In particular, whether the presence of affirming relationships in first year undergraduates' lives was related to actual-ideal self discrepancies (current proximity to ideal, and past and future movement), higher levels of motivation and intended effort to pursue ideal-relevant goals, and higher levels of life satisfaction was tested. A mediation model was examined, to investigate the possibility that relation affirmation mediated a positive relationship between self-esteem and predicted movement towards the ideal self, goal pursuit, and life satisfaction. These questions were initially addressed using multilevel modelling to account for the fact that the participants were recruited from three different cohorts.

Hypotheses

1. Relationship affirmation will be positively related to past movement towards ideal self, and anticipated future movement towards ideal self.

2. Relationship affirmation will be positively related to goal pursuit measures.

3. Relationship affirmation will be positively related to life satisfaction.

4. Self-esteem will be positively related to relationship affirmation and to the outcome variables above.

5. Relationship affirmation will mediate the relationship between self-esteem and future ideal self movement, goal pursuit, and life satisfaction (as shown in Figure 2.1).

Method

Participants

A total of 402 first year undergraduate psychology students took part in the current study as part of a mass questionnaire session in return for course credit. The

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questionnaire described was one of several administered during the students' first term at Goldsmiths, University of London. The same questionnaire (with some minor differences) was administered in 2010 (N = 112), 2012 (N = 138), and 2013 (N = 152), with first years from each of these cohorts taking part. Demographic information was only available for the 2010 cohort, where the participants were between 18 and 29 years old (M = 18.98, SD = 1.85), and 82.5% were female. These demographics can be assumed to be similar for the remaining cohorts also, because the student intake for Psychology BSc is similar from year to year, being mainly female and coming soon after secondary school at age 18 or 19.

Questionnaire Materials

Measures used in all studies can be found in Appendix A. The measures used for the purpose of the present study are described below.

Relationship affirmation. Students were asked about close affirming others (these people could be any close relation to the participant, with examples given of a parent, friend, or mentor), and the extent to which they felt they had such affirming others in their life, using a 15-item Relationship Affirmation Scale, which was adapted from previous research on the Michelangelo Phenomenon (Rusbult, Kumashiro, Kubacka, & Finkel, 2009). In particular, the items chosen were those most relevant to non-romantic relationships, and each item was modified to refer to "people in my life" rather than "my partner". The items included statements such as "I have people in my life who see me as the person I would ideally like to be", which participants rated on 7-point Likert scales ranging from 1 ("do not agree at all") to 7 ("agree completely"). The original work on the Michelangelo model often distinguished between perceptual and behavioural affirmation, but for this study it was deemed appropriate to combine these into one general measure of relationship affirmation. This was because of the already

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fewer number of items relevant to non-romantic couples, and because of their theoretical similarity, as mentioned previously.

Life satisfaction. The 5-item Satisfaction with Life Scale (SWLS; Diener, Emmons, Larsen, & Griffin, 1985), was used to assess the subjective well-being of the students (e.g. "I am satisfied with my life"), with each response given on 7-point Likert scales ranging from 1 ("do not agree at all") to 7 ("agree completely").

Pursuit of goals related to the ideal self (Ideal Goals Motivation and Ideal Goals Effort). Students were asked to describe their *ideal self* and goals that would need to be achieved to move towards this ideal. Following the description, they were asked to indicate on 7-point Likert scales ranging from 1 ("do not agree at all") to 7 ("agree completely") the extent to which they agreed with various statements relating to these goals, such as "I have the ability and the skills necessary to achieve these goals", and "I pursue these important goals for me, and not because anybody else wants me to". This scale was adapted from items used in previous (unpublished) research into the Michelangelo Phenomenon and goal pursuit. Because the scale had not been used in the current form, factor analysis was carried out to ascertain the factor structure. The factor analysis and structure are described in more detail in the results section, but supported a single factor structure. As well as this total scale measure, analyses were carried out using a single item ("I am willing to put a lot of time and effort into achieving these goals"), as this item was considered to represent a more practical motivation concept, and therefore was of particular theoretical interest. This item is referred to as "Ideal Goals Effort" in Table 2.2.

Ideal self proximity (Past Movement and Predicted Movement). Following on from being asked to provide a description of their ideal self, participants were asked to indicate on an array of overlapping circles how close they felt they were to their ideal self at present (Proximity Present) and one year ago (Proximity Past). By controlling for

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the past measure, it was possible to examine the perceived movement towards or away from the ideal self (Past Movement). The 2012 and 2013 cohorts were also asked the same question with regards to the future (three years time; Proximity Future), and for these it was possible to examine predicted movement towards the ideal by controlling for the current proximity measure (Predicted Movement). As illustrated in Figure 2.1, The circles ranged from completely separate to fully overlapping, indicating the closeness to the ideal (see also Appendix 1), and were numbered from 1 (completely separate) to 9 (completely overlapping). The measure was replicated from previous research on the Michelangelo model (Kumashiro & Rusbult, 2004).
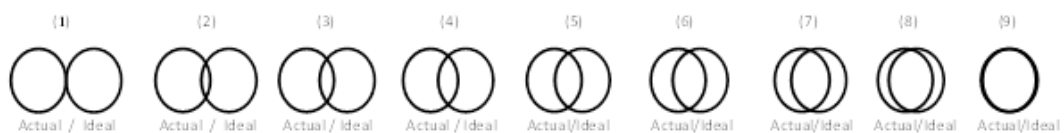
Figure 2.2. Ideal self proximity measure

Self-esteem. Rosenberg's 10-item Self-Esteem Scale (1965) was used to assess global self-esteem, with items such as "On the whole, I am satisfied with myself". Responses were given on 7-point Likert scales ranging from 1 ("do not agree at all") to 7 ("agree completely").

Procedure

Full ethical clearance was granted by the Psychology Department Ethics Committee at Goldsmiths, University of London.

First year psychology students were informed of the questionnaire session through a group mailing system, and chose to take part in return for course credits. Students were given the option of completing the questionnaires after a lecture on campus. Participants were instructed to maintain silence, and encouraged to ask

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questions of the experimenters if necessary. Students were not required to give their

names to protect their anonymity and encourage honesty. Each student created a unique

ID that allowed them to receive course credit for participating, but no names were used,

and individual responses were guaranteed to be confidential. All students completed the

questionnaires within two hours.

Results

Data Strategy

This explorative study sought to determine whether there was a link between

participants' self-esteem, levels of close relationship affirmation and their perceived

proximity to their ideal self , their motivation to pursue their ideal-relevant goals, and

their life satisfaction. Specifically, the possibility that relationship affirmation mediated

the positive link between self-esteem and goal pursuit was tested. These relationships

were tested using multilevel hierarchical multiple regression analyses in mixed models

in SPSS in the first instance, followed by mediation analysis using the PROCESS

(Hayes, 2012) macro in SPSS. Multilevel analyses were used to account for the three

different cohorts from which participants were recruited, with cohort being a level 2

factor, and participants being nested within cohorts. Multilevel models are used when

level 1 data are nested within particular groups, in this case schools, to account for non-

random variance between these (Hayes, 2012). Because no multilevel effects were

found for any of the analyses, the results presented are the fixed level 1 effects. The

PROCESS macro is a versatile statistical tool that is used within SPSS, which uses

bootstrapping for the accurate construction of asymmetric confidence intervals for

indirect effects in simple, multiple, or moderated mediation models. The macro carries

out additional computations not usually performed in most regression routines such the

multiplication of regression coefficients when quantifying indirect effects, the

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derivation of simple slopes and standard errors, and the derivation of regions of

significance (Hayes, 2012).

Because the goal pursuit scale has not been regularly used in previous research,

factor analysis was performed.

Factor Analysis

Oblique rotation was selected because the factors were assumed to be related, as

the items all measure goal pursuit. All factors loaded on to one item most strongly, and

the results of the analysis are shown in Table 2.1. This was also the case when the same

rotation was carried out on the scale for each cohort individually, and the reliability did

not improve when items were removed individually. The individual alpha scores for the

scale at each time point are shown in Table 2.2 under "Ideal Goals Motivation". The

fact that the items loaded on to one factor was logical theoretically, because all items

relate to optimism and motivation concerning pursuing ideal-relevant goals, and the

overall reliability was good ($\alpha = 75$). For the analyses that follow the scale is referred to

as Ideal Goals Motivation. As well as this scale, one item was used as a predictor in

separate analyses (first item in Table 2.1), because it was of interest theoretically, due to

explicitly measuring intended action.

Table 2.1. *Factor loadings for exploratory factor analysis with direct oblimin rotation on ideal goal pursuit items*

Item	Ideal Goals Motivation
I am willing to put a great deal of time and effort into achieving this goal	0.76
I have the ability and the skills that are needed to accomplish this important goal.	0.58
I fully understand the steps involved in achieving this important goal.	0.58
I think a lot about this most important goal	0.54
I pursue this important goal for me – not because other people want me to.	0.53
It's completely up to me whether this important goal is fulfilled or not.	0.51

Table 2.2 Descriptive statistics for main composite variables

Variable	α (T1, T2, T3)	N	Minimum	Maximum	Mean (SD)
Affirmation	.88, .87, .89	400	1.93	7.00	5.18 (0.99)
Ideal Goals Motivation	.80, .69, .72	399	2.00	7.00	5.44 (0.95)
Ideal Goals Effort	n/a	399	1.00	7.00	5.48 (1.34)
Life Satisfaction	.89, .85, .86	398	1.00	7.00	4.38 (1.30)
Proximity Present	n/a	393	1.00	9.00	5.04 (1.75)
Proximity Past	n/a	394	1.00	9.00	3.59 (1.83)
Proximity Future	n/a	286	1.00	9.00	6.98 (1.58)
Self Esteem	.88, .91, .90	400	1.00	7.00	4.98 (1.24)

Table 2.3 Pearson's inter-correlations between main composite variables

Variable	1	2	3	4	5	6	7	8
1 Affirmation	1							
2 Self-Esteem	.45*	1						
3 Proximity Current	.30*	47*	1					
4 Proximity Past	.17*	.26*	.66*	1				
5 Proximity Future	.30*	.38*	.53*	.25*	1			
6 Ideal Goal Motivation	.50*	.41*	.15*	.05	.33*	1		
7 Ideal Goal Effort	.38*	.35*	14*	.04	.26*	.76*	1	
8 Life Satisfaction	.33*	.55*	.51*	.39*	.28*	.25*	.22*	1

* $p < .01$

Hypothesis 1: Relationship affirmation will be positively related to past movement towards ideal self, and predicted movement towards ideal self.

According to the Michelangelo model, relationship affirmation is key to movement towards one's ideal self, and thus proximity to this ideal. To test this hypothesis, multiple regression analyses were carried out, using separate models to ascertain past movement towards the ideal by controlling for past proximity when predicting current proximity (Model 1), and predicted movement towards the ideal, by controlling for current proximity when predicting future ideal-proximity (Model 2). As shown in Table 2.4, the hypothesis was supported, with relationship affirmation predicting past movement, and predicted movement towards the ideal self.

Table 2.4 Multiple regression analysis showing unstandardised coefficients of affirmation predicting ideal self proximity (Past Movement, and Predicted Movement)

Model	*B*	t	Sig. (*p*)
Model 1 Proximity Current			
Proximity Past	0.60	0.62	< .001
Affirmation	0.36	4.96	< .001
Model 2: Proximity Future			
Proximity Current	0.43	9.25	< .001
Affirmation	0.23	2.76	.006

Hypothesis 2: Relationship affirmation will be positively related to goal pursuit measures.

In order to move closer to the ideal self, individuals need to achieve the personal goals related to this ideal, and so the second hypothesis attempted to ascertain whether relationship affirmation was related to goal pursuit. As hypothesised, in separate

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regression models, relationship affirmation predicted both Ideal Goals Motivation (total scale), and Ideal Goals Effort (the time and effort the individual planned to invest into pursuing ideal-relevant goals), as shown in Table 2.5.

Table 2.5. Regression analyses with affirmation predicting ideal goals motivation, ideal goal effort, and life satisfaction

Model	*B*	t	Sig. (*p*)
Model 1: Ideal Goals Motivation			
Affirmation	0.40	9.17	< .001
Model 2 Ideal Goals Effort			
Affirmation	0.51	7.87	< .001
Model 3: Life Satisfaction			
Affirmation	0.44	6.99	< .001

Hypothesis 3: Relationship affirmation will be positively related to life satisfaction.

According to the Michelangelo model, and to the model hypothesised in the present study (Figure 2.1), relationship affirmation not only leads to movement towards the ideal self, but also to improved well-being. This notion was supported in the current study, with regression analysis indicating that affirmation predicted life satisfaction in participants, as shown in Model 3 of Table 2.5.

Hypothesis 4: Self-esteem will be positively related to relationship affirmation, and to the outcome variables above.

As shown in Table 2.3, self-esteem was found to be positively related to affirmation, as well as to goal pursuit motivation measures and life satisfaction.

Hypothesis 5: Relationship affirmation will mediate the relationship between self-esteem and future ideal self movement, goal pursuit measures, and life satisfaction.

Based on the Michelangelo model, affirmation is the key to moving closer to the ideal self, particularly via increasing motivation towards and subsequent achievement of ideal-relevant goals. Self-esteem has been linked to goal pursuit, but this relationship has not been consistently supported (Baumeister et al., 2003). The current study aimed in part to test the hypothesis that the link between self-esteem future anticipated movement towards the ideal self, goal pursuit, and life satisfaction is in fact mediated by relationship affirmation.

To examine whether relationship affirmation mediated the positive relationship between self-esteem and anticipated movement towards the ideal self, Hayes' PROCESS macro for SPSS was used, once the absence of multilevel effects was established. Using 1000 bootstrap samples for bias-corrected bootstrap confidence intervals, it was estimated with 95% confidence that the indirect effect was between .0206 - .1648, supporting the hypothesis that relationship affirmation mediated the relation between self-esteem and future movement towards the ideal. Figure 2.3 illustrates this relationship.
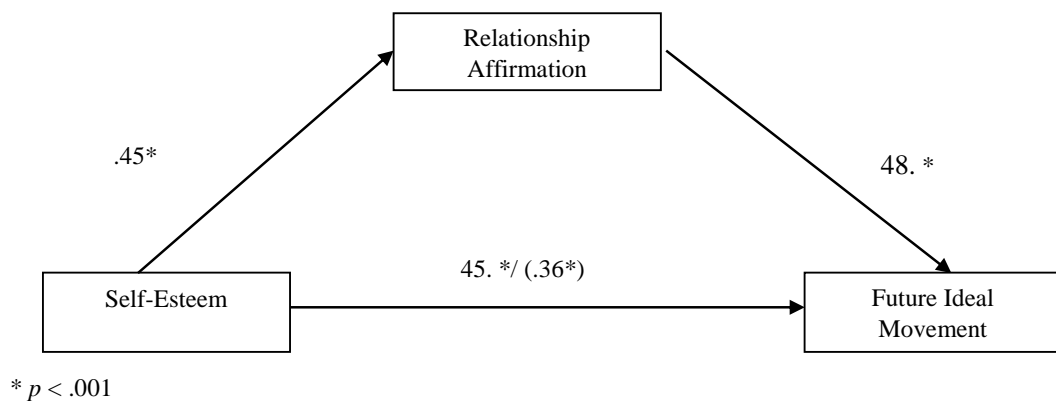
Figure 2.3. Standardised regression coefficients for the relationship between self-esteem and future ideal movement as mediated by affirmation. The standardised coefficient between self-esteem and future ideal movement controlling for affirmation is in parentheses.

Next, the hypothesis that relationship affirmation mediated the positive relationship between self-esteem and life satisfaction was examined. Using 1000 bootstrap samples for bias-corrected bootstrap confidence intervals, it was estimated with 95% confidence that the indirect effect was between -.0005 - .0974. Because the confidence intervals included zero, a significant indirect effect was not found, and this hypothesis was not supported.

When examining the mediation hypothesis in relation to goal pursuit, firstly, goal pursuit was operationalised as the total of the Ideal Goals Motivation scale (as described above). To test the mediation hypothesis, Hayes' PROCESS macro for SPSS was used, once the absence of multilevel effects was established. Using 1000 bootstrap samples for bias-corrected bootstrap confidence intervals, it was estimated with 95% confidence that the indirect effect was between .0771 - .1576, supporting the hypothesis

that relationship affirmation mediated the relation between self-esteem and the goal

pursuit subscale. Figure 2.4 illustrates this relationship.

```
                          ┌─────────────────┐
                          │   Relationship  │
                          │   Affirmation   │
                          └─────────────────┘
              .45*                              .40*

   ┌─────────────────┐   .32*/ (.21*)   ┌─────────────────┐
   │   Self-Esteem   │─────────────────▶│   Ideal Goals   │
   └─────────────────┘                  │   Motivation    │
                                        └─────────────────┘
   * p < .001
```
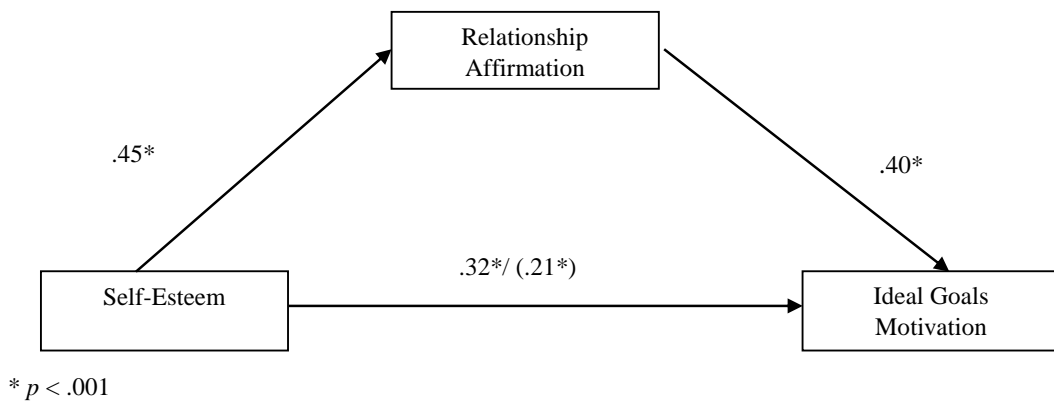
Figure 2.4. Standardised regression coefficients for the relationship between Self-Esteem and Ideal Goals Motivation as mediated by Affirmation. The standardised coefficient between Self-Esteem and Ideal Goals Motivation controlling for Affirmation is in parentheses

Secondly, the same hypothesis, but with particular focus on the intended effort to pursue ideal-relevant goals, was tested, with the outcome variable being Ideal Goals Effort. As above, the Hayes PROCESS macro was used once a lack of level 2 effects was established. Using 1000 bootstrap samples for bias-corrected bootstrap confidence intervals, it was estimated with 95% confidence that the indirect effect was between .1178 - .3515, supporting the hypothesis that relationship affirmation mediated the relation between self-esteem and the goal pursuit subscale. Figure 2.5 illustrates this relationship.

```
              Relationship
              Affirmation

  .45*                        .38*

                 .35*/ (.22*)
Self-Esteem                    Ideal Goals
                               Effort

* p < .001
```
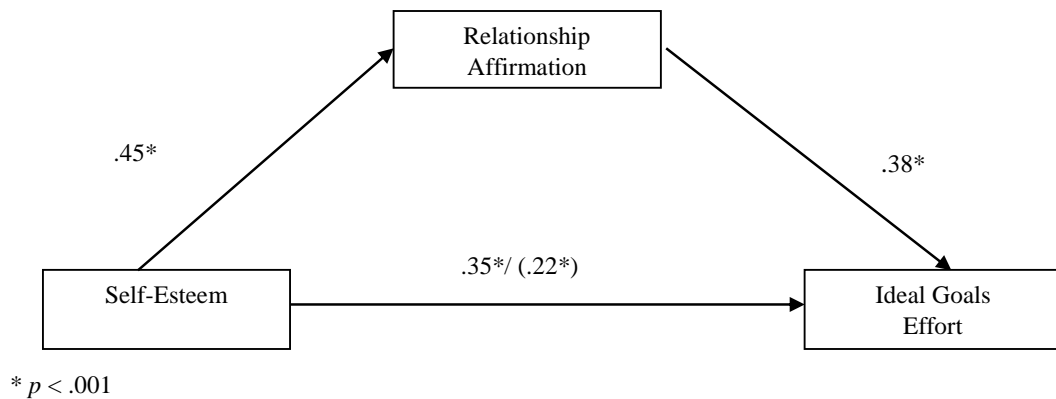
Figure 2.5. Standardised regression coefficients for the relationship between Self-Esteem and Ideal Goals Effort as mediated by Affirmation. The standardised coefficient between Self-Esteem and Ideal Goals Effort controlling for Affirmation is in parentheses.

Discussion

Hypothesis 1. As predicted in the first hypothesis, relationship affirmation positively predicted current actual-ideal self proximity, past movement towards the ideal self, and predicted future movement towards the ideal self. These findings support the applicability of the Michelangelo Phenomenon to relationships other than those of a romantic nature, suggesting that relationship affirmation is an important aspect of all close relationships. Indeed, previous research has shown that having close others who believe that they are able to succeed makes individuals see goals as more attainable, which can translate into achievement. For instance, parents believing that their children will succeed increases the link between the children's aspirations and outcomes

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(Majoribanks, 2003), and adults who report having supportive relationships also rate themselves as having more positive attributes (Sarason et al., 1991).

Hypothesis 2. In order to move towards one's ideal self, one is required to have enough motivation to pursue relevant goals, and it was hypothesised that relationship affirmation would positively predict goal pursuit, as operationalised by Ideal Goals Motivation and Ideal Goals Effort. This was found to be the case on both counts, indicating that higher levels of affirmation in their close relationships allowed students to express more motivation to pursue their goals and plan to spend more time and effort doing so. This is consistent with recent research showing that people who are effective at self-regulation, which is required for goal pursuit, tend to put themselves in goal-supportive social environments (van Dellen, Shah, et al., 2015). Similarly, teacher-pupil relationship quality was found to mediate the relationship between a school readiness intervention and positive behavioural and academic outcomes in a pre-school intervention study (Jones, Bub, & Raver, 2013). The results of the current study combined with findings such as these confirm the importance of supportive relationships for goal pursuit.

Hypothesis 3. As predicted, relationship affirmation was found to predict students' levels of life satisfaction. This falls in line with previous research that has revealed social integration to be one of the best predictors of subjective well-being (e.g. Affleck et al., 1998; Cohen, 2004; Harris et al., 2003). As well as research specifically centred on the Michelangelo Phenomenon, other studies have shown that having a significant other who supports one's personal goals is a strong predictor of life satisfaction (Brunstein, 1993), and this research again extends these findings to non-romantic close relationships.

Hypothesis 4. Participants with higher self-esteem were found to report higher levels of relationship affirmation, as predicted. Further, high self-esteem was linked to

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increased proximity to the ideal self, and to higher levels of goal pursuit motivation and intended effort.

　　　　Hypothesis 5. As hypothesised, relationship affirmation was found to mediate the positive relationship between self-esteem and anticipated movement towards the ideal self in the future (Future Ideal Movement) and goal pursuit, both in terms of general goal pursuit motivation (Ideal Goals Motivation) and specifically intended effort (Ideal Goals Effort). This finding is consistent with previous research indicating that high self-esteem is associated with greater goal progress (Pinquart et al.), but is a novel result in that it points towards the centrality of affirming relationships to goal pursuit, suggesting that the cultivation of these relationships may be part of the means by which self-esteem works to improve motivation. This may help to explain the sometimes contradictory empirical evidence surrounding the link between self-esteem and achievement (Baumeister et al., 2003). It has been suggested previously that low self-esteem may indirectly harm achievement prospects by causing social problems (Crocker & Luhtanen, 2003), and the present results suggest that this process may work in the opposite direction also.

　　　　The lack of support found for a mediation model whereby relationship affirmation mediates the relation between self-esteem and life satisfaction questions this aspect of the hypothesised model. The strong relation between self-esteem and life satisfaction may overweigh any concurrent effect that occurs via relationship affirmation. This will be further examined in the following chapter.

General conclusions

The results of the present study illustrate a broader application of the Michelangelo model's concept of relationship affirmation than has been previously demonstrated. In this study, first year undergraduates, the majority of whom can be assumed to not be in committed romantic relationships, were shown to benefit from having affirming others in their lives as do partners in romantic relationships. That affirmation was related to past and anticipated future movement towards the ideal self was confirmed in the results, and perhaps more interestingly, affirmation was linked to goal pursuit intentions and motivation, which could have concrete effects in terms of later achievement.

The current study was not without its limitations. Firstly, demographic data, including gender, were not gathered from all participants. Previous research has shown gender differences in self-esteem in particular (Kling, 1999), which may mean that the findings are biased by the inability to control for gender. It would also have been useful to gather data on the students' socio-economic background, as this has been shown to influence the type of possible selves (including ideal selves) that young people aspire to (Oyserman et al., 2003), and the likelihood they ascribe to accomplishing these goals.

The participants in this study had all achieved a certain level of success by gaining a place to study at a good university. With this in mind, it would be interesting to determine whether affirming relationships would have beneficial effects for motivation and achievement in a younger population, who were in the process of making important life decisions, and whether these effects held longitudinally. The studies that follows attempted to address this question, specifically with regards to adolescents in sixth form education, who were in the process of taking their final exams and making decisions about university that could be presumed to have important consequences for their futures.

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Chapter 3 Self-Esteem, Relationship Affirmation, and Goal Pursuit in Adolescence: Cross-sectional School Study

Introduction

At any age, the prospect of achieving attractive outcomes in the future, and becoming closer to an ideal future version of the self, is likely to direct current behaviour (Carver & Scheier, 1990; Ford, 1992). Although this may be a relative constant cross-culturally and throughout the lifespan, the content of the goals in question are likely to vary according to social and cultural norms (Nurmi, 1993; Oyserman & Fryberg, 2006), as well as to idiosyncratic differences between individuals (Carver & Scheier, 1990). Adolescence is thought to be a key stage in forming an adult identity (Erikson, 1963), and establishing goals that are compatible with this emerging sense of self (Nurmi, 1987; Ogilvie, 2001).

The current study builds upon the results described in the last chapter, to examine the effects of relationship affirmation and self-esteem on the pursuit of ideal self-relevant goals during adolescence, using a sample of adolescents from four London schools. The same broad hypotheses were addressed, with some adaptations according to the sample, and an additional focus on academic, examination-related goals. In addition, the possibility that individual differences would influence the effect of relationship affirmation was examined, particularly related to socio-economic factors, and contingencies of self-worth.

Goals in Adolescence

In the West, adolescents tend to report education-related goals (Lanz et al., 2001), and to a slightly lesser extent goals related to social relationships (Carroll, 2002; Knox et al, 2000). Research has indicated that higher educational aspirations are associated with a range of academic outcomes, such as educational attainment, work intentions, and grades (Cunningham et al., 2009; Dubow et al., 2009; Mello, 2008).

Furthermore, higher levels of goal pursuit motivation in adolescence have been linked to greater levels of achievement during early adulthood (Davis-Kean et al., 2008; Majoribanks, 1994; 2003; Schoon & Parsons, 2002), which itself has a well-established positive influence on subjective well-being, mood, and overall happiness (Affleck et al., 1998; Brunstein, 1993; Brunstein et al., 1998; Emmons, 1986; Harris et al., 2003; King, 1988; Omodei & Waring, 1990; Sheldon et al., 2010).

Relationships in Adolescence

The previous chapter extended existing literature on the Michelangelo model by applying the concept of relationship affirmation to any forms of close relationships, rather than focussing solely on romantic ties. The current study repeated this endeavour, but the population in question (adolescents in their final years of school) meant that the relationships in question may have taken the form of student-teacher relationships, where research has for instance shown that the quality of such relationships mediates the effect of school-based interventions that target self-regulation skills (Jones, Bub, & Raver, 2013), as well as more straight-forwardly predicting children's later academic achievement (Birch & Ladd. 1998; Entwistle & Alexandra, 1999), and playing a protective role for children at high academic risk (Burchinal et al., 2002). Similarly, having parents who have high aspirations for their goal achievements has been shown to influence adolescents' own aspirations and motivation levels (Jodl et al., 2001), partly through a process of parental modelling (Dubow et al., 2009; Frome & Eccles, 1998).

During adolescence, relations with peers also become increasingly important. Despite the fact that peers have often been viewed as potential sources of distraction from academic goals, leading to a greater focus on more hedonistic and deviant goals (Cohen & Cohen, 2001), there is evidence to suggest that having positive peer support and expectations leads to improved motivation (Wentzel, 1994). Moreover, when

adolescents are exposed to peers exhibiting prosocial behaviour, they are more likely to endorse prosocial goals themselves, possibly because they internalise similar goals to their peers, and relationship affirmation leads them to believe that these goals are realistic and achievable (Wentzel, Filiseth & Looney, 2007).

The Michelangelo Phenomenon centres around the notion that having close affirming relationships, in which both parties see their partner as close to their partner's ideal self, helps people to move closer to their ideals by achieving related goals (Rusbult et al., 2009). Although this model has previously only been applied to adults, it ties in with the evidence above pointing to the importance of supportive relationships to motivation and goal pursuit in adolescence. The current study aimed to extend the model to this population, as well as to look the mediating role of relationship affirmation between self-esteem and goal pursuit, whilst also taking into account situational factors, particularly surrounding socio-economic status.

As previously described, the most crucial aspect of the Michelangelo model is relationship affirmation, and it is important to note that this type of affirmation only occurs when it is the individuals' own ideal that is being encouraged, rather than the partner's ideal (see Pygmalion Phenomenon; Rusbult et al., 2009). This corresponds to the emphasis Self-Determination Theory places on autonomy for motivation and goal pursuit (Deci & Ryan, 1990). The current study aimed to incorporate this to a greater extent than the previous study, by explicitly emphasising that the questions referred to the extent to which the goals in question form part of the participants' *own* ideal self, and similarly emphasising that the academic goals they were asked about were intended to be their own personal goals.

At the same time, adolescence is a stage at which the ideal self is likely to not yet be fully formed (Erikson, 1959), and therefore relationship affirmation may work differently, perhaps influencing the formation and endorsement of possible ideal selves

alongside moving individuals towards their ideals, making its influences more pertinent. Either way, relationship affirmation can be assumed to play a role in motivation in some capacity.

Self-Esteem, Relationships, and Goal Pursuit

Having high self-esteem, or a positive view of oneself, has often been linked to positive outcomes (e.g. Wigfield & Wagner, 2005), with higher self-esteem being associated with more internal locus of control beliefs, and greater goal progress (Nurmi & Pulliainen, 1991; Pinquart et al., 2004). Within education settings, early research showed a positive effect of self-esteem, with one review of over 100 studies including 200,000 pupils revealing a positive correlation between self-esteem and school performance (Hansford & Hettie, 1982). However, large-scale meta-analyses attempting to disentangle the effect of self-esteem from that of other likely predictors of success have found mixed results particularly in relation to the influence of self-esteem on academic achievement in adolescence (Baumeister et al., 2003; Judge & Bono, 2001), when self-esteem is becoming more stable and global (Meier, Orth, Denissen, & Kühnel, 2011) (Morin et al., 2013). The findings described in the previous chapter suggest that it is possible that looking at self-esteem in isolation is not the most effective perspective.

The link between self-esteem and relationship success is less controversial than that between other forms of success. Research has shown that individuals with high self-esteem are more able to seek out helpful forms of support from relationship partners than their low self-esteem counterparts, who tend to display ineffective attempts at support-seeking (Murray, Rose, Bellavia, Holmes, & Kusche, 2002; Keefe & Berndt, 1996; Lakey, Tardiff, & Drew, 1994), and couples with low self-esteem are more likely than those with high self-esteem to break up over a one month period

(Hendrick, Hendrick, & Adler, 1988). High self-esteem individuals consistently rate themselves as more successful in interpersonal relationships (e.g. Buhrmester, Furman, Wittenberg, & Reis, 1988; Frome, 2000). These findings are likely to apply to adolescents as well as to adults, within friendships or romantic relationships.

Research focused specifically on adolescents' relationships and self-esteem has mainly centred around their relationships and attachment styles with parents, suggesting that secure attachment leads to higher and more stable self-esteem in young adulthood (e.g. Arbona & Power, 2003; Mattanah, Lopex, & Gover, 2011; Mikulincer & Shaver, 2005), which then acts as a buffer in future social situations, allowing for the formation of successful social ties (Gorresse & Ruggieri, 2012). A recent meta-analysis of 24 studies supported this notion, revealing a positive correlation between self-esteem and peer relationships (Gorrese & Ruggieri, 2013).

Findings such as those outlined, and the mediation relationship in the previous chapter, suggest that there may be a social mechanism behind the positive effect of self-esteem, and the current study aimed to investigate this possibility further.

Potential Moderators of the Effect of Relationship Affirmation

Contingencies of self-worth. To account for possible differences in the areas individuals base their perceptions of self-worth on, the present study included contingencies of self-worth (Crocker et al., 2003) as a potential moderator of the influence of relationship affirmation. As mentioned, the construct of contingencies of self-worth is designed to be used separately from global self-esteem, and in these studies they were used in part to indicate the extent to which relationship affirmation would influence the outcome measures. In other words, they were included to allow for more clarity on the likelihood that relationship affirmation would influence goal pursuit, with particular emphasis on academic goal pursuit.

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The literature on contingencies of self-worth have specified a number of domains that are frequently important for people's self-regard (physical appearance, family support, God's love, and virtue, academic competence and approval from others), but for the purpose of the current studies, only those relating to academic competence and approval from others were included, as these were deemed most relevant to the research questions. It is probable that pupils who do not base their self-esteem on academia would not be as motivated to do well at school (Crocker, 2002), and would not necessarily have ideal selves related to academic outcomes, and this should not be attributed to a lack of self-regulation skills. On the one hand, pupils whose self-worth is highly contingent on the approval of others could be considered more likely to be influenced by relationship affirmation. Conversely, high levels of contingency have been found to be related to negative outcomes, due to the extrinsic nature of such motivation. These possibilities were investigated in the present study.

Socio-economic status. It is logical that growing up in a financially stable environment, with parents who have received a good education, would increase the likelihood of adolescents prioritising school and achieving academic success, partially due to more parental investment (Henry, Cavanagh, & Oetting, 2011) and to modelling processes (Bandura, 1991). Indeed, this has been supported empirically, with parental socio-economic status and level of education predicting lower aspiration-expectation discrepancies, and higher academic achievement (e.g. Boxer et al., 2011). The present study included family socio-economic status, both in terms of parental education and a location-based index of financial deprivation, as well as sampling pupils from both state-funded and privately-funded schools, in an effort to discern the roles these factors may play in influencing the effect of affirmation on motivation and achievement.

Research Overview

Based on the research outlined above, the current study aimed to determine whether relationship affirmation plays a central role in predicting adolescents' motivation to pursue their goals, and in particular their academic goals, taking into account an individual-level personality factor, self-esteem, as well as potential moderators. Based on the results of the studies described in the previous chapter, the analyses focused on affirmation as a mediator between self-esteem and goal pursuit, with the addition of the possibility of affirmation mediating between self-esteem and well-being (which was previously not found to be significant), and possible moderators of affirmation. Socio-economic status, both in terms of economic and educational indicators, was of particular interest as a possible moderator because of the practical implications regarding interventions. Figure 3.1 illustrates the central model being tested in the present study.
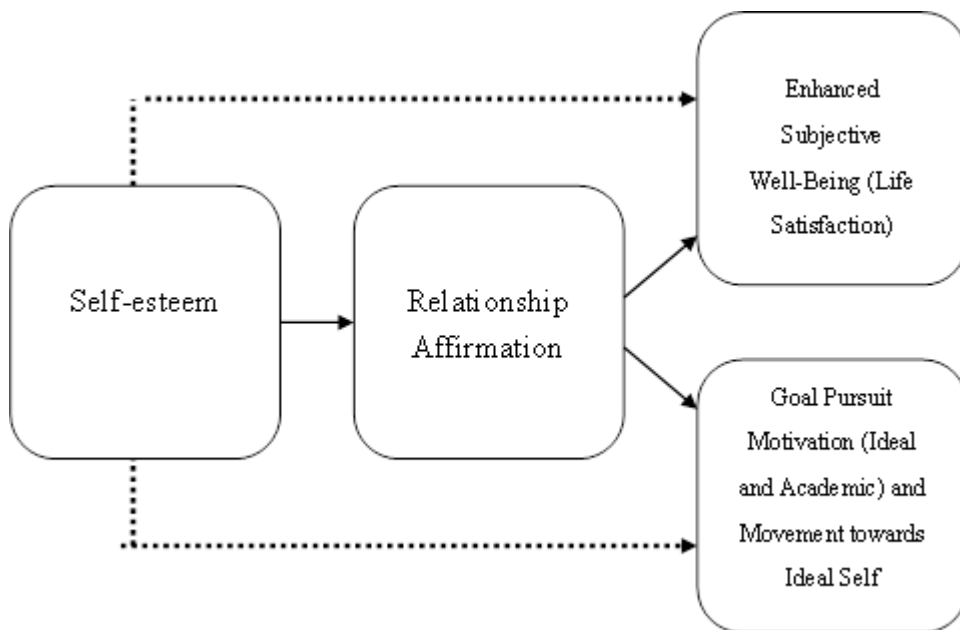
Figure 3.1. Model illustrating hypothesised effects of self-esteem and relationship affirmation on ideal and academic goal pursuit motivation, ideal self movement and well-being.

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Hypotheses

The following broad hypotheses were addressed:

1. Relationship affirmation will be positively related to goal pursuit measures (ideal goals motivation, ideal goals intended effort, and academic goal effort).

2. Relationship affirmation will be positively related to life satisfaction.

3. Self-esteem will be positively related to relationship affirmation and to the outcome variables above,

4. Relationship affirmation will mediate the positive relationship between self-esteem and goal pursuit motivation, and between self-esteem and life satisfaction

Potential Moderators

The possibility that Individual differences between pupils will moderate the influence of affirmation on goal pursuit and life satisfaction will be examined, but no apriori hypotheses are specified. The following potential moderators will be examined: measures of socio-economic status (IDACI, parental education) and contingencies of self-worth (CSW Academic, CSW Approval). These moderators will also be examined in relation to the effect of self-esteem on relationship affirmation.

Method

Participants

220 sixth-form school pupils (21.6% male) from four schools in the London area took part in questionnaire sessions during spring 2014, before completion of their AS-level examinations. The schools in question were a willing subsample of over 300 schools in the Greater London area that were contacted with requests for participation. The pupils were in the first year of sixth form, and were aged between 16 and 18 (M= 16.82, SD = .53). Recruitment and participation took place at the schools, two of which were state-funded (50.9% and 20.5% of pupils from each), and two of which were privately funded (21.4% and 7.3% from each). The plurality of the pupils described their ethnicity as "White" (37.2%), closely followed by "Asian / Asian British" (35.3%), then "Black / Black British" (12.4%), "Mixed" (11.1%) and finally "Other" (4.1%). Table 3.1 shows the breakdown of the participants according to school. In each of the four schools, all pupils from the first year of sixth form (Year 12) were asked if they would like to participate in the questionnaire sessions, and the resulting participants are those who volunteered to do so.

Table 3.1. *Descriptive statistics for participants according to school*

	School Number			
	School 1	School 2	School 3	School 4
N	112	16	45	47
School Type	State	Private	State	Private
Location	Hackney	Hammersmith	Kensington	Richmond
Age M (SD)	16.89	16.88	16.68	16.74
	(0.56)	(0.34)	(0.47)	(0.53)
Gender (% female)	100	100	53	45
Ethnicity				
White/White British	10%	81%	46%	78%
Asian/Asian British	56%	13%	20%	9%
Black/Black British	21%	0%	9%	0%
Mixed	8%	6%	16%	6%
Other	5%	0%	9%	7%
Parental Education				
Post-graduate degree	8%	44%	2%	21%
University degree	21%	56%	48%	70%
A-levels (or equivalent)	13%	0%	21%	4%
GCSEs (or equivalent)	23%	0%	16%	4%
Did not finish school	32%	0%	14%	0%

Questionnaire Materials

Demographics and background information (parental education). Pupils

were asked to identify themselves by a unique ID code comprised of their initials and

date of birth, so that their data could be removed if necessary and could later be linked

to their data from the upcoming time points. They were also asked to indicate their

gender, ethnicity, age, post-code (for use in calculating Income Deprivation Affecting

Children Index (IDACI) scores, below), maternal and paternal (or nearest equivalent)

countries of upbringing, employment, and education levels. Whether one of the parents

had completed a higher education qualification or not was dummy-coded to represent parents' education level, with no parent with higher education coded as 0, and one or more coded as 1.

Income Deprivation Affecting Children Index. A relative deprivation score, the IDACI (retrieved from http://www.education.gov.uk/cgi-bin/inyourarea/idaci.pl), was calculated for each pupil based on their self-reported post code. Each score is based on the Super Output Area in which the postcode lies, and represents the proportion of children under the age of 16 that live in low income households in this area, based on census data from 2010. Families are classed as income-deprived if they are in receipt of income support, income based jobseekers allowance or pension credit, or child tax credit with an equivalised income (excluding housing benefits) below 60% of the national median before housing costs. The scores range from 0 (least deprived) to 1 (most deprived).

Previous exams: Exertion. The pupils' judgements of their own exertion towards their recently completed exams were assessed using three items, each measured on 7-point Likert scales ranging from 1 ("do not agree at all") to 7 ("agree completely"). The items measured time and effort ("I devoted a lot of time and effort into studying for my exams"), inadequate effort ("I know I should have studied harder for my exams"), and procrastination ("I found myself procrastinating when it came to studying for my exams").

Academic goal effort. Pupils were asked to describe their "most important academic goal" that they would like to achieve during the following three years. These goal descriptions were included to enable the goal-related items that followed; the goals themselves were expected to be very similar in nature between participants, mostly relating to A-levels or university acceptances. One item was asked in relation to pupils' academic goals, measured on a 7-point Likert scale ranging from 1 ("do not agree at

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all") to 7 ("agree completely"). This item concerned intended effort: "I am willing to put in a great deal of time and effort into pursuing this academic goal".

Contingencies of Self-Worth. 7 items taken from Crocker and colleagues' original scale (CSW Scale; Crocker, Luhtanen, Cooper, & Bouvrette, 2003) assessing the extent to which participants' self-esteem depends on two areas of life: academic competence (CSW Academic; 3 items; e.g. " I feel better about myself when I know I'm doing well academically."), and approval of others (CSW Approval; 4 items; e.g. "My self-esteem depends on the opinions others hold of me"). These two subscales were shortened from the original scale, which contains five items for each contingency of self-worth domain, to shorten the entire questionnaire session. Items that re-stated a near identical sentiment were excluded, making sure that both subscales contained both positive and negative items (e.g. "I don't care if other people have a negative opinion of me"). The original scale also included the dimensions physical appearance, family support, God's love, and virtue, but these were not deemed as relevant to the present study, and so were not included. However, to mask the purpose of the questions slightly, the contingencies of appearance and competition were included but included in the analysis. Responses were given on 7-point Likert scales ranging from 1 ("do not agree at all") to 7 ("agree completely").

Self-Esteem. Rosenberg's 10-item Self-Esteem Scale (1965) was used to assess global self-esteem (see previous chapter for details).

Pursuit of goals related to the ideal self (Ideal Goals Motivation and Ideal Goals Effort). Students were asked to think about and then describe their *ideal self* and goals that would need to be achieved to move towards this ideal. They were encouraged to give detailed descriptions. Following the description, they were asked to indicate on 7-point Likert scales ranging from 1 ("do not agree at all") to 7 ("agree completely") the extent to which they agreed with nine items relating to these goals such as "I have the

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ability and skills needed to achieve these goals". These were the same items that made up the "Ideal Goals Motivation" scale in Chapter 2, with the addition of three items: "It is likely that I will achieve these goals in the next couple of years", "I am very optimistic that I will be able to achieve these goals", and "I actively seek out advice on how I can best achieve these goals". These items were added to increase the validity of the scale, because of its centrality to the hypotheses. Based on factor analysis of the questionnaire data in the previous chapter, the mean of these items was referred to as "Ideal Goals Motivation", the alpha for which was high and is shown in Table 3.2. In addition, and also in keeping with the analyses presented in the previous chapter, a single item from these nine ("I am willing to put in a lot of time and effort to pursue these goals") was analysed separately, in an effort to focus on the behavioural intentions related to the goals in question.

Relationship affirmation. Students were asked about close affirming others, and the extent to which they felt they had affirming others in their life, using a 15-item Relationship Affirmation Scale (see previous chapter for details).

Life satisfaction. The 5-item Satisfaction with Life Scale (SWLS; Diener, Emmons, Larsen, & Griffin, 1985), was used to assess the subjective well-being of the students (see previous chapter for details).

Procedure

Full ethical clearance was granted by the Psychology Department Ethics Committee at Goldsmiths, University of London.

Pupils took part in the study during school hours, on a voluntary basis, during the spring of 2014. Before deciding whether they would like to participate, the experimenter explained the nature of the questions involved to the pupils, and emphasised the confidentiality of their responses. The questionnaires were completed

either on individual PC computers, or using an equivalent paper-and-pencil version, depending on the resources and preference of the school in question. All pupils taking part in each school completed the questionnaires on the same day as their school-mates. The students took approximately 30 – 50 minutes to complete the questionnaire in silence, and were encouraged to raise their hands with questions if necessary. When all of the students were finished, they were debriefed and given the email address of the experimenter in case of further questions. They were also given space to provide comments and feedback at the end of the questionnaire.

Results

Ideal self and goals

In order for the questions regarding pupils' ideal self and related goal pursuit to be more personally relevant and focused for each individual, pupils were asked to describe their ideal self and up to four important goals that they would need to achieve in the next year in order to move closer to this ideal. They were required to list at least two goals. For 82% of pupils, the first goal listed was related to academic achievement (e.g. "Finishing my A-levels and attaining good grades"; "Doing twice as better as I did this year in my work"). For 12% of pupils, the first goal was related to intrapersonal non-physical change (e.g. "more independent"; "be a better person who people can look up to"). For an additional 4%, the goal was interpersonal in nature (e.g. "to still be in a healthy relationship"), and for 2% the goal was related to intrapersonal physical attributes (e.g. "be thinner"). The second listed goal was academic for 61% of pupils, non-physical intrapersonal for 26%, physical intrapersonal for 9%, interpersonal for 3%, and material (e.g. "be richer") for 1%.

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Data analysis strategy for hypotheses 1 - 4

The results focus on the hypothesised centrality of relationship affirmation in predicting positive motivational and well-being outcomes in adolescents. Several mediation models were tested, to ascertain whether relationship affirmation mediated the relations between self-esteem and goal pursuit and self-esteem and well-being. The possible moderating roles of socio-economic status and contingencies of self-worth were also tested, with simple moderation models, as well as moderated mediation models (the results of which are not presented due to a lack of significant findings). Because the data were gathered from four separate schools, multilevel modelling was carried out to account for possible school-level effects. Results were obtained using mixed models and the PROCESS macro in SPSS. Because previous research has demonstrated gender differences in self-esteem (Kling, 1999), one of the central variables in the study, gender was controlled for throughout. Because of the low number of males in the study, gender moderation analyses were not considered reliable and so not included.

Table 3.2. *Descriptive statistics and reliability for main composite measures*

Variable	α	N	Minimum	Maximum	Mean
Affirmation	.79	203	2.60	6.93	5.23
Self-Esteem	.89	216	1.30	7.00	4.90
Ideal Goals Motivation	.76	193	3.44	7.00	5.55
Ideal Goals Effort	n/a	193	3.00	7.00	5.99
Academic Goal Effort	n/a	212	2.00	7.00	6.17

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Life Satisfaction	.86	197	1.00	7.00	4.45
CSW Academic	.58	218	1.00	7.00	5.01
CSW Approval	.74	219	1.00	6.75	3.23
IDACI	n/a	177	0.00	0.79	0.35

Hypothesis 1 and 2: Relationship affirmation will be positively related to goal pursuit measures (ideal goals motivation, ideal goals intended effort, and academic goal effort), and life satisfaction.

As predicted, and as shown in Table 3.3, relationship affirmation was positively related to all three types of goal pursuit, as well as to life satisfaction.

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Table 3.3. *Pearson's inter-correlations between composite measures*

Measure	1	2	3	4	5	6	7	8	9
1 Affirmation	1								
2 Self-Esteem	.25**	1							
3 Ideal Goals Motivation	.25**	.38**	1						
4 Ideal Goals Effort	.18*	.17*	.67**	1					
5 Academic Goals Effort	.24**	.12*	.26**	.40**	1				
6 Life Satisfaction	.47**	.44**	.28**	.07	.04	1			
7 CSW Academic	.23**	-.08	-.03	.12	.41**	-.02	1		
8 CSW Approval	-.02	-.46**	-28**	-.14	-.02	-.12	.21**	1	
9 IDACI	.04	.02	.06	.01	.10	-.09	.07	-.17	1

Hypothesis 3: Self-esteem will be positively related to relationship affirmation and to the outcome variables above.

As shown in Table 3.3, self-esteem was positively related to relationship affirmation, goal pursuit measures, and life satisfaction.

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Hypothesis 4: Relationship affirmation will mediate the positive relationship between self-esteem and goal pursuit motivation, and between self-esteem and life satisfaction

      Relationship affirmation mediating between self-esteem and goal pursuit motivation. As shown in Table 3.3, self-esteem was positively related to the outcome variables discussed (ideal goals motivation, ideal goals effort, academic goal effort, and life satisfaction). Based on my the results described in the previous chapter, one of the focal points of the current study was to determine whether affirmation by close relationships would act as a mediating factor between self-esteem and goal pursuit in this adolescent sample. Firstly goal pursuit was operationalised by the full Ideal Goals Motivation scale (as described above). In order to investigate this hypothesis, it was first necessary to determine whether the possible influence of school as a level 2 effect needed to be taken into account. To test this, an unconditional model predicting Ideal Goals Motivation with a random intercept, but no predictors apart for gender, was run. The fact that school did not predict a significant difference in Ideal Goals Motivation suggested that multilevel modelling by school was not essential to the analysis.

      As shown in Table 3.4, using multiple regression analysis, both relationship affirmation and self-esteem predicted goal pursuit. To test the mediation hypothesis, Hayes' PROCESS macro for SPSS was used. Using 1000 bootstrap samples for bias-corrected bootstrap confidence intervals, it was estimated with 95% confidence that the indirect effect was between .0067 and .0676, supporting the hypothesis that relationship affirmation mediated the relation between self-esteem and goal pursuit. Figure 3.2 illustrates this relationship. However, as shown, the mediation was partial, and self-esteem remained a significant predictor of goal pursuit motivation.

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Table 3.4. *Multiple Regression Analysis with Affirmation and Self-Esteem Predicting*

Goal Pursuit, controlling for Gender

Model	B	SE (B)	t	Sig. (p)
Model 1: Ideal Goals Motivation				
Self-Esteem	0.22	0.04	5.02	<0.01
Affirmation	0.18	0.07	2.71	<0.01
Model 2: Ideal Goals Effort				
Self-Esteem	0.12	0.05	1.84	0.07
Affirmation	0.20	0.09	2.09	0.04
Model 3: Academic Goal Effort				
Self-Esteem	0.12	0.06	1.93	0.06
Affirmation	0.24	0.09	2.66	<0.01

```
                        ┌─────────────────────┐
                        │     Affirmation     │
                        └─────────────────────┘
                       ↗                        ↘
              .27**                                  .18**

┌─────────────────┐       .39**/ (.35**)      ┌─────────────────────────┐
│   Self-Esteem   │ ────────────────────────→ │  Ideal Goals Motivation │
└─────────────────┘                           └─────────────────────────┘
```
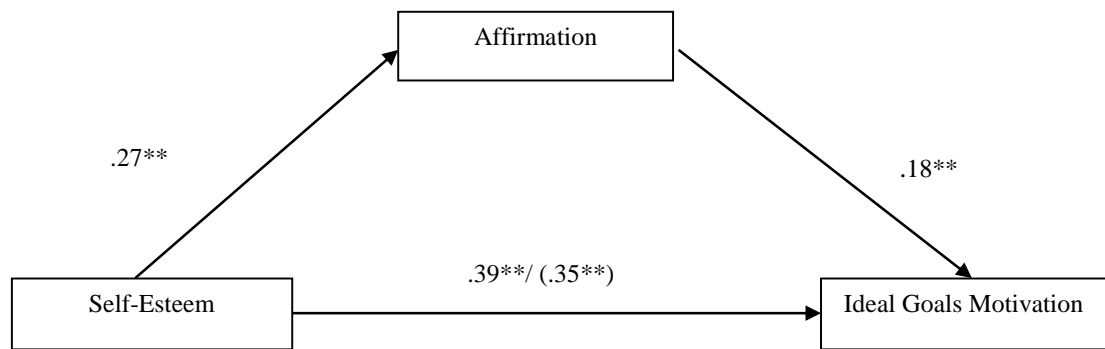
* *p* < .01

** *p* < .001

Figure 3.2. Standardised regression coefficients for the relationship between Self-Esteem and Ideal Goals Motivation as mediated by Affirmation, controlling for gender. The standardised coefficient between Self-Esteem and Ideal Goals Motivation controlling for Affirmation is in parentheses.

Next, the same hypothesis was tested, with goal pursuit operationalised as the one effort-related item, referred to here as "Ideal Goals Effort". An unconditional model predicting Ideal Goals Effort with a random intercept, but no predictors apart for gender, was run. The fact that school did not predict a significant difference in Ideal Goals Effort again suggested that multilevel modelling by school was not essential to the analysis.

As shown in Table 3.3, using multiple regression analysis, both relationship affirmation and self-esteem predicted goal pursuit. To test the mediation hypothesis, Hayes' PROCESS macro for SPSS was used. Using 1000 bootstrap samples for bias-corrected bootstrap confidence intervals, it was estimated with 95% confidence that the indirect effect was between .0025 - .0839, supporting the hypothesis that relationship

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affirmation mediated the relation between self-esteem and the intended goal pursuit effort. Figure 3.3 illustrates this relationship.

```
                        ┌─────────────────┐
                        │   Affirmation   │
                        └─────────────────┘
            .27**                              .19*

┌─────────────────┐    .18*/ (.14)    ┌─────────────────┐
│   Self-Esteem   │ ─────────────────→│ Ideal Goals Effort │
└─────────────────┘                   └─────────────────┘
```

  * *p* < .05 ** *p* < .01 *** *p* < .01

Figure 3.3. Standardised regression coefficients for the relationship between Self-Esteem and Ideal Goal Effort as mediated by Affirmation, controlling for gender. The standardised coefficient between Self-Esteem and Ideal Goals Effort controlling for Affirmation is in parentheses.

To investigate the same question, but specifically in relation to *academic* goal pursuit, analyses were carried out with the single item relating to the extent to which participants would be willing to exert time and effort to pursue an important academic goal (Academic Goal Effort). An unconditional model predicting Academic Goal Effort with a random intercept, but no predictors apart from gender, was run. This revealed that school did not predict a significant difference in Academic Goal Effort. As previously, this suggested that multilevel modelling was not necessary to the analysis.

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Next, Affirmation and Self-Esteem were added to the model as fixed predictors, the results of which are shown in Table 3.4. As shown, both relationship affirmation and self-esteem predicted academic goal pursuit. To test the mediation hypothesis, Hayes' PROCESS macro for SPSS was used. Using 1000 bootstrap samples for bias-corrected bootstrap confidence intervals, it was estimated with 95% confidence that the indirect effect was between .0129 - .1016, supporting the hypothesis. Figure 3.4 illustrates this relationship.

** $p < .001$

* $p = .01$
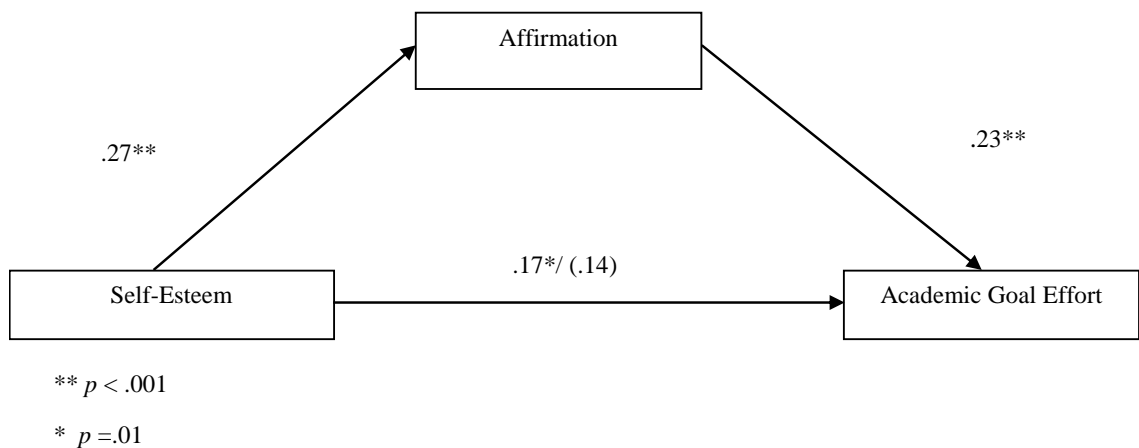
Figure 3.4. Standardised regression coefficients for the relationship between Self-Esteem and Academic Goal Effort as mediated by Affirmation, controlling for gender. The standardised coefficient between Self-Esteem and Academic Goal Effort controlling for Affirmation is in parentheses.

Relationship affirmation mediating between self-esteem and life satisfaction. The Michelangelo model posits that relationship affirmation not only leads to movement towards one's ideal self through achieving ideal-relevant goals, but also that it leads to improved well-being. This hypothesis was tested in the current context

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by examining whether affirmation predicted satisfaction with life, and furthermore whether it mediated the more established (e.g. Baumeister et al., 2003) positive relationship between self-esteem and life satisfaction.

Once again, to test for possible level 2 school effects, an unconditional model predicting life satisfaction with a random intercept, but no predictors apart from gender, was run. Gender was a significant predictor of life satisfaction, with males having higher levels compared to females ($p = .009$), but there were no level 2 effects. Next, self-esteem and affirmation were added to the model, as shown in Table 3.5. There was no significant improvement in model fit if the predictors were allowed to vary across schools (level 2).

Table 3.5. *Multiple Regression Analysis with Affirmation and Self-Esteem Predicting Life Satisfaction.*

Model	*B*	SE (*B*)	t	Sig. (*p*)
Constant	-0.12	0.72	-0.17	0.86
Gender	-0.47	0.22	-2.16	0.03
Self-Esteem	0.37	0.07	5.04	<0.01
Affirmation	0.70	0.11	6.50	<0.01

Using 1000 bootstrap samples for bias-corrected bootstrap confidence intervals, it was estimated with 95% confidence that the indirect effect via affirmation was between .0557 - .2293, supporting the hypothesis that affirmation mediates the relationship between self-esteem and life satisfaction, as illustrated in Figure 3.5.

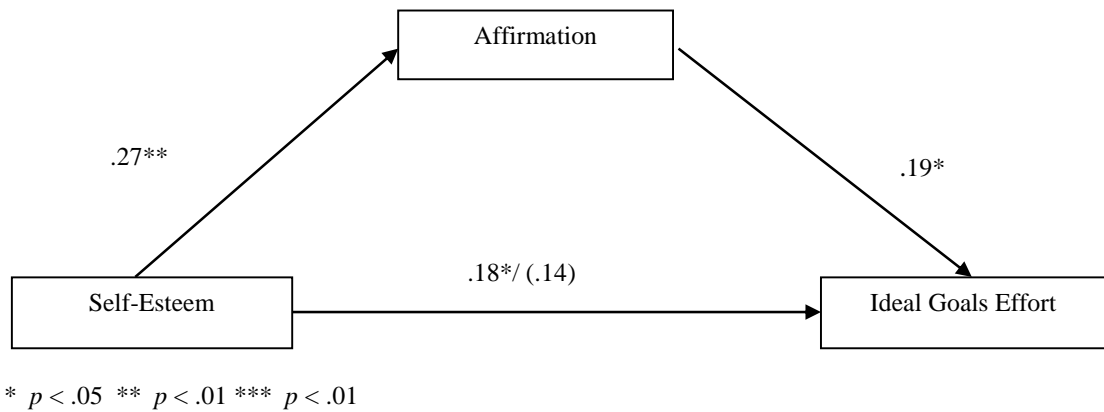Affirmation

27.*

.48*

Self-Esteem

.42*/ (.32*)

Life Satisfaction

* $p < .001$
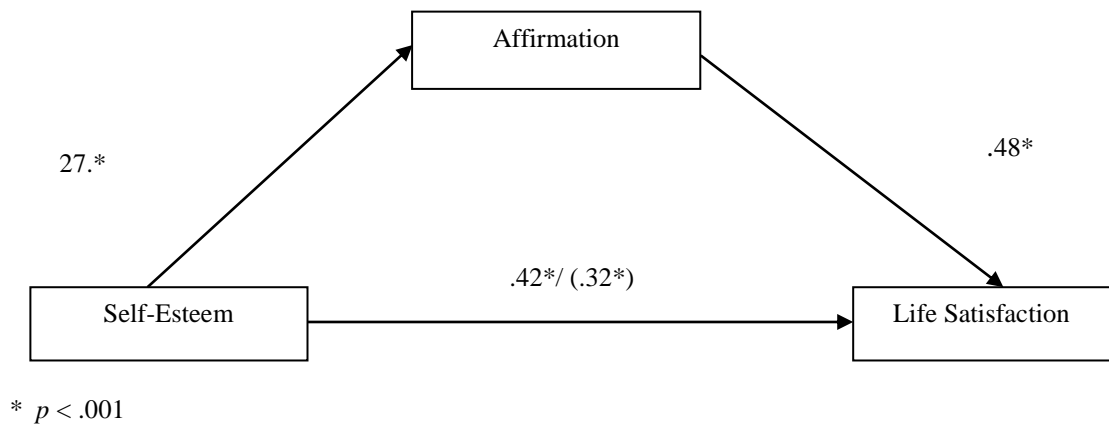
Figure 3.5. Standardised regression coefficients for the relationship between Self-Esteem and Life Satisfaction as mediated by Affirmation, controlling for gender. The standardised coefficient between Self-Esteem and Life Satisfaction controlling for Affirmation is in parentheses.

Potential Moderators of the effect of Affirmation on Goal Pursuit and Life Satisfaction: Measures of Socio-Economic Status (IDACI, Parental Education) and Contingencies of Self-Worth (Academic, Approval).

To determine whether differences between pupils could result in relationship affirmation having differing effects, several variables were tested as possible moderators of the relationship between affirmation and goal pursuit, as well as between affirmation and life satisfaction. Socio-economic status, both in terms of financial deprivation (IDACI) and parental education (dummy coded as university-educated vs. non-university-educated) were tested as possible moderators. Also, the two subscales of the Contingency of Self-Worth Scale (CSW Approval and CSW Academic) were each tested as possible moderators of the relationships. Ethnicity was also tested as a moderator, but because it did not significantly moderate any of the relationships is not included in the tables below. Each model was individually compared to a model it could be considered nested in, in which the predictors' slopes were able to vary across school (level 2), to determine whether a multilevel structure was present. Because no significant level 2 effects were found and the model fits were not significantly better upon addition of the random slopes, the results presented are fixed level 1 effects.

As shown illustrated in Figure 3.6, parental education was shown to marginally significantly ($p = .059$) moderate the relationship between relationship affirmation and the extent to which pupils intended to exert effort towards pursuing their most important academic goal (Academic Goal Effort). This model, with gender as covariate, and relationship affirmation, parental education and affirmation*parental education as predictors, was found to be significant, $F(4, 191) = 5.07$, $P < .001$, and accounted for 10.68% of the variance in academic goal effort. Those pupils without a parent who had achieved at least a bachelor's level degree qualification benefitted more from relationship affirmation, in that the slope between affirmation and goal pursuit was

steeper for these pupils. Neither IDACI or parental education significantly moderated any of the other relationships, as shown in Table 3.6.
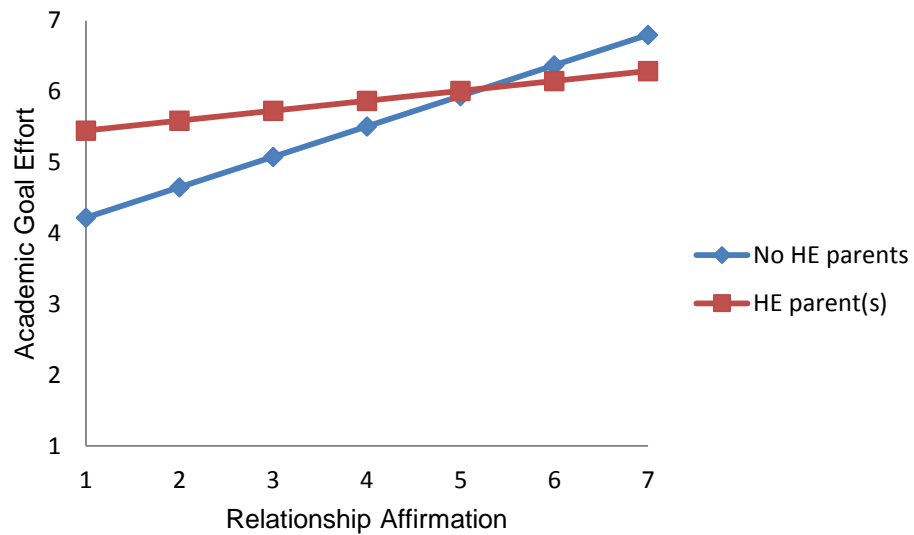
Figure 3.6. Simple slopes showing unstandardised regression coefficients for the relationship between Affirmation and Academic Goal Effort for pupils with parents with and without higher education (HE) qualifications.

Table 3.6. *Multiple Regression Analysis with Socio-Economic Status Indicators as Possible Moderators of Effect of Affirmation on Goal Pursuit Measures Controlling for Gender*

Model	B	SE (B)	t	Sig. (p)
IDACI				
Model 1: Ideal Goals Motivation				
Gender	-0.30	0.15	-1.97	0.05
Affirmation	0.24	0.16	1.49	0.14
IDACI	0.28	2.25	0.12	0.90
IDACI*Affirmation	0.01	0.42	0.03	0.98
$R^2 = .08$, $F (4, 152) = 3.13$, $p < .02$				
Model 2: Ideal Goals Effort				
Gender	-0.18	0.24	-0.74	0.46
Affirmation	0.08	0.18	0.43	0.67
IDACI	-2.53	2.68	-0.94	0.35
IDACI*Affirmation	0.51	0.50	1.02	0.31
$R^2 = .04$, $F (4, 152) = 1.68$, $p = .16$				
Model 3: Academic Goals Effort				
Gender	0.41	0.27	1.52	0.13
Affirmation	0.28	0.22	1.30	0.20
IDACI	0.64	2.86	0.23	0.82
IDACI*Affirmation	-0.12	0.51	-0.23	0.82
$R^2 = .07$, $F (4, 155) = 2.05$, $p < .01$				
Parental Education				
Model 1: Ideal Goals Motivation				
Gender	-0.24	0.13	-1.83	0.69
Affirmation	0.35	0.12	3.00	< .01
Parental Education	0.84	0.81	1.04	0.30
Parental Education *Affirmation	-0.18	0.15	-1.21	0.23
$R^2 = .09$, $F (4, 184) = 4.07$, $p = .16$				

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Model 2: Ideal Goals Effort

Gender	-0.17	0.21	-0.82	0.41
Affirmation	0.28	0.15	1.88	0.06
Parental Education	0.55	1.08	0.51	0.61
Parental Education *Affirmation	-0.08	0.20	-0.42	0.68

$R^2 = .04$, $F (4, 184) = 1.68$, $p = .15$

Model 3: Academic Goals Effort

Gender	0.49	0.23	2.14	0.03
Affirmation	0.43	0.11	4.05	< .01
Parental Education	1.80	0.77	3.75	< .01
Parental Education *Affirmation	-0.31	0.17	-1.90	0.06

$R^2 = .11$, $F (4, 191) = 5.07$, $p < .001$

Table 3.7. *Multiple Regression Analysis with Contingencies of Self-Worth as Possible Moderators between Affirmation and Goal Pursuit Measures Controlling for Gender*

	B	SE (B)	t	Sig. (p)
CSW Approval				
Model 1: Ideal Goals Motivation				
Gender	-0.18	0.13	-1.39	0.17
Affirmation	-0.02	0.15	-0.13	0.90
CSW Approval	-0.63	0.26	-2.42	0.02
CSW Approval *Affirmation	0.09	0.05	1.84	0.07
$R^2 = .18$, $F(4, 184) = 7.86$, $p < .01$				
Model 2: Ideal Goals Effort				
Gender	-1.15	0.21	0.69	0.49
Affirmation	-0.01	0.24	-0.06	0.95
CSW Approval	-0.55	0.37	-1.50	0.14
CSW Approval *Affirmation	0.08	0.07	1.17	0.24
$R^2 = .07$, $F(4, 184) = 3.98$, $p < .01$				
Model 3: Academic Goals Effort				
Gender	0.42	0.23	1.85	0.07
Affirmation	0.36	0.35	1.03	0.32
CSW Approval	0.10	0.52	0.19	0.85
CSW Approval *Affirmation	-0.03	0.09	-0.29	0.77
$R^2 = .10$, $F(4, 191) = 4.98$, $p < .01$				
CSW Academic				
Model 1: Ideal Goals Motivation				
Gender	-0.20	0.14	-1.45	0.15
Affirmation	0.05	0.36	0.13	0.89
CSW Academic	-0.28	0.36	-0.76	0.45
CSW Academic *Affirmation	0.04	0.07	0.63	0.53
$R^2 = .08$, $F(4, 183) = 3.41$, $p = .01$				

Model 2: Ideal Goals Effort

Gender	-0.27	0.21	-1.30	0.19
Affirmation	0.38	0.50	0.75	0.45
CSW Academic	0.27	0.51	0.53	0.59
CSW Academic *Affirmation	-0.04	0.10	-0.36	0.72

$R^2 = .04$, $F(4, 183) = 1.68$, $p = .10$

Model 3: Academic Goals Effort

Gender	0.18	0.19	-0.98	0.33
Affirmation	0.97	0.75	1.30	0.20
CSW Academic	1.17	0.77	1.53	0.13
CSW Academic *Affirmation	-0.16	0.14	-1.15	0.25

$R^2 = .22$, $F(4, 190) = 5.41$, $p < .01$

As shown in Table 3.7, from the possible moderation models tested, having approval-contingent self-esteem (CSW Approval) marginally significantly moderated the relationship between relationship affirmation and motivation towards pursuing ideal-self relevant goals. The regression model including gender as covariate, and affirmation, CSE approval, and affirmation*CSE approval significantly predicted ideal goals motivation, accounting for 17.58% of the variance in ideal goals motivation. As illustrated in Figure 3.7, those pupils with higher levels of approval-contingent self-esteem had a stronger relationship between affirmation and goal pursuit.
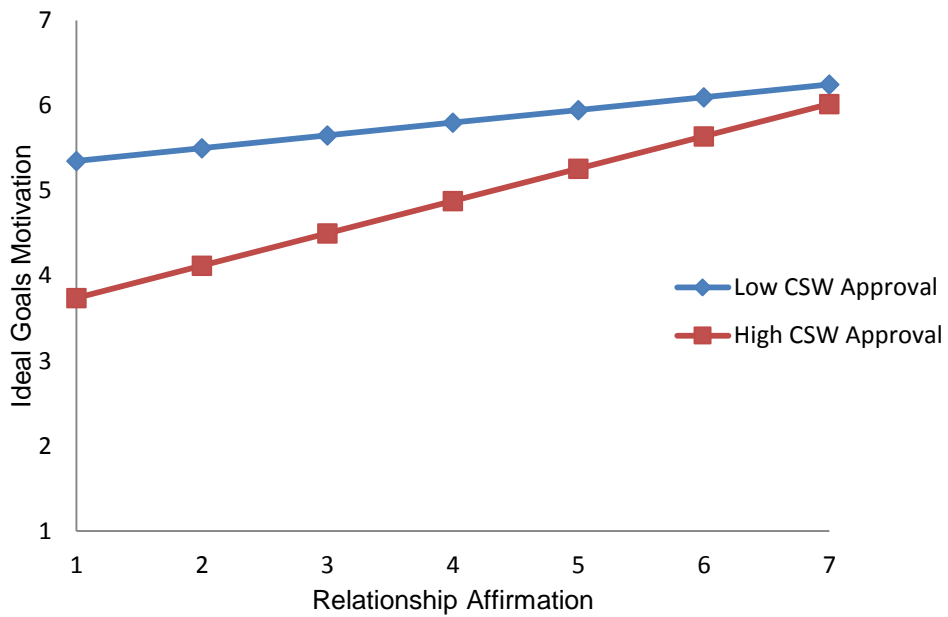
Figure 3.7. Simple slopes showing unstandardised regression coefficients for the relationship between Affirmation and Ideal Goals Motivation for levels of CSW Approval 1 SD above and 1 SD below the mean.

When the same analyses were performed with Life Satisfaction as the outcome variable, none of the proposed factors moderated the strong positive relationship between relationship affirmation and life satisfaction.

Potential moderators of the relationship between self-esteem and affirmation

As illustrated in Tables 3.7 and 3.8, the positive relationship between self-esteem and relationship affirmation was not predicted by the socio-economic potential moderators (IDACI and parental education), or by the contingency of self-worth potential moderators (CSW approval and CSW academic).

Table 3.8. *Multiple Regression Analysis with Socio-Economic Status Indicators as Possible Moderators of Effect of Self-Esteem on Affirmation Controlling for Gender*

Model	B	SE (B)	t	Sig. (p)
Model 1: IDACI				
Gender	0.25	0.17	1.47	0.14
Self-Esteem	0.19	0.09	2.10	0.04
IDACI	-0.15	1.11	-0.14	0.89
IDACI*Affirmation	0.02	0.22	0.11	0.91
$R^2 = .08$, $F(4, 159) = 3.54$, $p < .01$				
Model 2: Parental Education				
Gender	0.27	0.16	1.72	0.09
Self-Esteem	0.26	0.09	2.95	<0.01
Parental Education	0.70	0.56	1.23	0.22
Parental Education*Affirmation	-0.13	0.11	-1.17	0.24
$R^2 = .08$, $F(4, 196) = 3.48$, $p < .01$				

Table 3.9. *Multiple Regression Analysis with Contingencies of Self-Worth as Possible Moderators of Effect of Self-Esteem on Affirmation Controlling for Gender*

Model	*B*	SE (*B*)	t	Sig. (*p*)
Model 1: CSW Academic				
Gender	0.17	0.15	1.16	0.25
Self-Esteem	0.15	0.27	0.55	0.58
CSW Academic	0.13	0.25	0.51	0.61
CSW Academic *Affirmation	0.01	0.05	0.13	0.89
$R^2 = .11$, $F(4, 195) = 5.54$, $p < .01$				
Model 2: CSW Approval				
Gender	0.28	0.16	1.72	0.09
Self-Esteem	0.37	0.12	3.01	<0.01
CSW Approval	0.28	0.15	1.89	0.06
CSW Approval*Affirmation	-0.04	0.03	-1.31	0.19
$R^2 = .10$, $F(4, 196) = 4.60$, $p < .01$				

Discussion

Based on the theoretical underpinnings of the Michelangelo Phenomenon, as well as the findings from the previous chapter, it was predicted that relationship affirmation would mediate the relationship between self-esteem and goal pursuit motivation in the current adolescent sample. The findings supported this hypothesis, with affirmation significantly mediating the relationship between self-esteem and all three measurements of goal pursuit. For Ideal Goals Motivation and Academic Goal Effort, affirmation partially mediated the effect of self-esteem, and for Ideal Goals Effort, affirmation fully mediated its effect. These findings are consistent with research linking higher self-esteem to goal progress (e.g. Pinquart et al., 2004), but suggest that the mechanisms by which individuals are able to allocate time and effort to goal pursuit depend at least in part on having relationships with close others who believe that these

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goals are attainable, as previously demonstrated by research into the Michelangelo model (e.g. Rusbult, Coolsen, et al., 2009).

As well as this mediation process, the study also aimed to ascertain whether relationship affirmation acted as a mediator between self-esteem and life satisfaction in this sample, despite this not being so in the previous study. The findings showed that this was the case, which again confirms the importance of having affirming relationships to well-being, and suggests that the well-established link between self-esteem and life satisfaction may work via enabling a supportive social network to be created and maintained. As suggested by Feeney and Collins' relationship thriving model (2014), these findings lend credibility to the notion that close relationships are important not only in their protective influence, as in the often-cited studies linking social networks to lower morbidity and mortality (e.g. Cohen, 2004; Kawachi & Berkman, 2001), but also by encouraging positive thriving.

As mentioned, this mediation result was not present in the previous chapter, in the study involving university students. This could be partially attributable to the age difference between the two populations sampled, and their life stages. Although the age difference between the samples is not large (approximately two years), adolescence has been shown to be a time where peer relationships in particular are of utmost importance to well-being (Massey et al., 2008), and this may be less the case as people grow up and become slightly more sure of who they are and friendships become more secure. Similarly, feeling that their parents are affirming may be of more importance when youths are still at school, when parents are likely to be more involved in their daily activities and therefore influence their well-being more directly. Additionally, the university sample differ from the school sample in that they have already achieved a goal that many school pupils are in the process of striving for, and thus may be less

reliant on the scaffolding provided by close relationships in order to feel satisfied with their lives.

In addition to investigating the ways in which affirming relationships help individuals pursue their goals and improve their well-being, the current study attempted to determine whether traits belonging to the recipient of the affirmative relationships influenced their effect. The possible moderating effect of pupils' socio-economic was investigated in terms of economic deprivation and parental education levels, and parental education (one or more parents having achieved a university-level education) was found to moderate the relationship between affirmation and intended effort to pursue academic goals. For pupils whose parents had not attended higher education, the relationship between affirmation and academic goal pursuit was steeper than those pupils who had at least one parent with a higher education. This suggests that for pupils who do not come from a family where attending university has long been the norm, having close others who believe that they are close to their ideal selves and able to achieve relevant goals is especially important.

The role of parental education as moderator is particularly interesting when considered in parallel with suggestions previous research into differences in education-related identity processes in first generation university students and those whose parents had attained degrees (Kuppens et al., 2015). For pupils whose parents had not attended higher education, there may be more need to create affirming relationships, as part of a social scaffolding process, and to combat feelings of unease and belongingness uncertainty that have been shown to hinder performance (Walton & Cohen, 2007).

In addition to socio-economic status, contingencies of self-worth were also examined as possible moderators of the relationship between affirmation and the goal pursuit outcomes. It was found that basing their sense of self-worth on the approval of others acted as a moderator between pupils' relationship affirmation and motivation to

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pursue ideal-relevant goals. Those pupils who reported basing their self-worth on the approval of others to a high degree generally reported less motivation to pursue their goals, but were more strongly positively influenced by having affirming relationships. In keeping with the findings above, this suggests that it is often the more vulnerable individuals who benefit most from having affirming others in their lives.

The conclusions drawn about these moderators should be considered with caution, however, because both only reached marginal significance, and therefore may not represent robust or replicable findings.

The possibility that these same moderators could act separately to moderate the influence of self-esteem on relationship affirmation was tested, but none of these models indicated a moderation effect. Theoretically there is not a particular reason to expect the effect of self-esteem on the ability to form and maintain affirming relationships differ depending on socio-economic status or contingency of self-worth, and these findings confirm this.

Limitations

Again, this study had several limitations. Once again, the pupils sampled were mostly female, which limits the extent to which the findings can be generalised to both genders. However, because demographic data were gathered, it was possible to adjust for gender in the final models.

Secondly, because the pupils almost all described academic goals in relation to their ideal self, the item specifying academic goal effort was perhaps too similar, and somewhat redundant. It would have been more useful to include more specific measures of goal pursuit intentions, and this will be addressed in the next chapter. This was considered to be of particular interest because the strongest mediation effect was that between self-esteem and ideal goals effort, which was the outcome measure specifically

designed to measure the effort pupils intended to exert in the near future. For these reasons, more directly comparable and objective (number of hours as opposed to amount of effort) would be a useful addition.

The study would have been strengthened by having a larger sample size, and including participants from a wider range of schools, which was not possible due to time and resource restrictions. Future research would benefit from having substantially more pupils take part, to increase the statistical power and the validity of the findings. It is possible that the schools that were willing to take part are not representative of all London schools, because by agreeing to take part, they were in the minority. Unfortunately due to restrictive time-tabling and an understandable focus on preparing pupils for their upcoming examinations, this age group is particularly difficult to target without the research forming part of the curriculum.

As with all cross-sectional data, firm conclusions could not be drawn regarding the directionality of causation of the relationships described. This is often an issue in studies such as these, and there have been calls for more longitudinal studies to enable clearer ideas about directionality (Nurmi, 2004). Again, this is an issue that will be addressed in the following chapters.

General Conclusions

The results of the current study support and extend those found in the previous chapter. They suggest that having close affirming relationships is an important factor in adolescents' lives, both in terms of their motivation to pursue their goals, and their general well-being. They also re-confirm the mediating role of relationship affirmation in the link between self-esteem and these positive outcomes, which is an important finding considering the controversy surrounding the link between self-esteem and achievement in adolescence (e.g. Baumeister, 2003).

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To further investigate these findings, it was considered of interest to link relationship affirmation, and its mediating role with self-esteem, to more detailed outcome measures. The study that follows attempted to explore this.

Chapter 4 Replication and Extension: Second Time Point in School Study

Introduction

Long- and Short-Term Goal Pursuit Motivation

This study attempted to extend upon the previous chapter by further clarifying the role of self-esteem and relationship affirmation in assisting adolescents to motivate themselves to pursue their goals, thus moving towards their ideal selves. As outlined, the link between self-esteem and academic achievement is a controversial one (Baumeister et al., 2003), but one that has been of paramount interest to researchers and educators alike, due to the importance of educational achievement for young people's future prospects (Morretti, 2005; Muenning; Rouse, 2005). It is likely that self-esteem is linked to having high hopes for the future in general, but the results discussed in the previous chapter suggest that relationship affirmation, and the support that comes with this, is even more important for bolstering the motivation needed to attain the short-term goals that make long-term success achievable.

Movement towards the ideal self and goal pursuit are indisputably linked, but the present study attempted to disentangle the more abstract notion of movement towards the ideal self and relevant goal pursuit from more concrete short-term goal intentions and achievements, as well as replicating the findings from the previous time point.

As well as having long-term goals, and an ideal self to strive towards, it is also critical for individuals to see the path towards these goals, in the form of more practical and short-term targets that can lead to noticeable results or changes (Oyserman, Bybee, Terry, & Hat-Johnson, 2004). The current study attempted to expand upon the previous time point by incorporating indicators of short-term goal pursuit.

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The current study builds on the previous results by focussing more explicitly on adolescents' goals relating to their upcoming exams, during what can be seen as one of the most important times in their educational career. The results of the AS-level examinations that the pupils were in the midst of would determine the prospective university offers they would receive, which could potentially alter the course of their life quite drastically.

Research Overview

Based on the literature, and on the findings from the previous studies described in earlier chapters, the current study aimed to extend the mediation hypothesis to incorporate more short-term and concrete outcome measures. The mediation relationships previously found were examined again, and the same relationships were tested using specific exam-related outcome measures, some of which related to previous effort exerted, and some to intended effort in the future. The hypothesised model of relations between the constructs is shown in Figure 4.1. Again, the possible moderating effect of contingencies of self-worth (academic and approval-related), and socio-economic status (parental education and IDACI) were investigated, to attempt to replicate the marginal moderation effects found in the earlier sample. In order to test the Michelangelo model in this population, a measure of students' movement towards their ideal self was included as an outcome measure, so as to determine whether relationship affirmation was related to perceived movement towards their ideal self in the time since the first study was carried out.
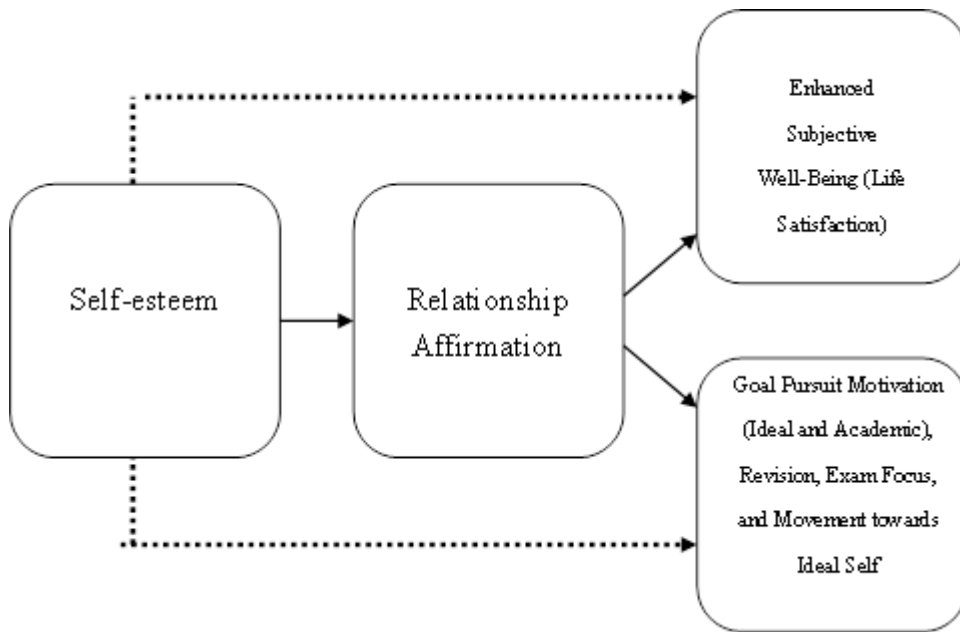
Figure 4.1. Model illustrating hypothesised effects of self-esteem and relationship affirmation on goal pursuit motivation, examination measures, ideal self movement, and well-being.

Hypotheses

The following broad hypotheses were addressed:

1. Relationship affirmation will be positively related to ideal goal pursuit motivation, revision hours spent, examination focus, movement towards the ideal self, and life satisfaction.

2. Self-esteem will be positively related to relationship affirmation, and to the outcome measures above.

3. Relationship affirmation will mediate the positive relationship between self-esteem and ideal goal pursuit motivation (overall and intended effort).

4. Relationship affirmation will mediate the positive relationship between self-esteem and measures of past revision exertion and future examination intentions.

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5. Relationship affirmation will mediate the positive relationship between self-esteem and movement towards the ideal self.

6. Relationship affirmation will mediate the positive relationship between self-esteem and life satisfaction.

Potential Moderators

The possibility that Individual differences between pupils will moderate the influence of affirmation on goal pursuit and life satisfaction will be examined, but no apriori hypotheses are specified (due to the previous findings only reaching borderline significance). The following potential moderators will be examined: measures of socio-economic status (IDACI, parental education) and contingencies of self-worth (CSW Academic, CSW Approval).

Method

Participants

165 Sixth-form school pupils (78% female) took part in questionnaire sessions as a follow-up questionnaire session from that described in Chapter 3, approximately six months after the first time point in the autumn of 2014, when they had completed their AS-levels and had just started revising for their A-levels in their final year of school. Of these, 98 had taken part in the first session, whilst the remaining 67 were new participants. For some analyses, only those who took part in both time points were included, due to demographic data only being collected at the first time point. Again, participants were recruited from four Greater London schools, two of which were privately funded (7.9% and 28.5% of sample) and two of which were state funded (46.1% and 17.6% of sample). The students had at this point completed their AS-level examinations or equivalent, and would be working towards their final A-level

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qualifications (or equivalent). See Chapter 3 for more detailed demographic information.

Questionnaire Materials

Demographics. For this study, students were not asked for detailed demographical information, because of their already having given this information in the previous session. They were asked their gender and postcode (to calculate their IDACI score). Their parental education level was taken from the first time point, as it can be assumed that this would not have changed during intervening months. However, it became apparent that not all participants in the present study had in fact taken part in the first time point, so this measure was not available to analyse for all participating students.

Relationship affirmation. Students were asked about close affirming others, and the extent to which they felt they had affirming others in their life, using the same 15-item Relationship Affirmation Scale as described in previous chapters.

Self-Esteem. Rosenberg's 10-item Self-Esteem Scale (1965) was used to assess global self-esteem (see chapter 2).

Pursuit of goals related to the ideal self (Ideal Goals Motivation and Ideal Goals Effort). Students were asked to think about their ideal self, and goals related to moving closer to this ideal (See previous chapters).

Ideal Self Movement. Pupils were asked to think about the ideal self that they had described in the previous session and to indicate on a Likert scale from 1 (moved away a lot) to 7 (moved a lot closer) the extent to which they had moved away from or towards their ideal self.

Exam focus. 5 items created for the present study to assess the extent to which the students intended to prioritise revision and preparation for their A-levels (or

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equivalent) over other areas of their lives (e.g. "I intend to often prioritise studying over social and leisure (e.g. video games, sports) activities."; "I intend to put a lot of time and effort into studying for my exams / assessments."). Responses were given on 7-point Likert scales ranging from 1 ("do not agree at all") to 7 ("agree completely").This was not a previously validated scale, but was created specifically for this purpose.

Revision Hours. Students were asked to choose between five options ranging from 0 to 4+ hours, in answer to the following item: "When revising, how many hours did you spend studying per day outside of scheduled school hours, on average?".

Revision Comparison. Students were asked to indicate their answer to the following item, on a 7-point Likert scale ranging from "Much less than average" to "Much more than average": "How much do you think you revised / worked, compared to other pupils at your school?". This item was intended as another concrete measure of actual effort expended.

Life satisfaction. The 5-item Satisfaction with Life Scale (SWLS; Diener, Emmons, Larsen, & Griffin, 1985), was used to assess the subjective well-being of the students (see previous chapters).

Contingencies of Self-Worth . 7 items taken from Crocker and colleagues' original scale (CSW Scale; Crocker, Luhtanen, Cooper, & Bouvrette, 2003) assessing the extent to which participants' self-esteem depends on two areas of life: academic competence (CSW Academic) and approval of others (CSW Approval). See previous chapter for details.

Procedure

Students completed the questionnaires during school time, either on individual computers (they were given a URL for access to an online version of the questionnaire which was designed using Qualtrics software) or paper-and-pencil versions, depending

on the resources available. The researcher was present during the sessions, and introduced the study, highlighting the confidentiality of the responses. The students were encouraged to ask questions if necessary and to maintain silence throughout. All students completed the questionnaires within 45 minutes, but remained in the classroom until the end of the session. When all questionnaires were complete, the researcher thanked and debriefed the students, and provided an email address in case of later questions. They were also given space to provide comments and feedback at the end of the questionnaire.

Results

Data Analysis Strategy

As in the previous chapter, the results focus on the mediation relationship, whereby relationship mediates the positive effect of self-esteem on motivation to pursue important goals. In addition to attempting to replicate the findings from the first time point, the current study incorporated new outcome measures, specifically focussing on the students' upcoming A-level (or equivalent) examinations, and on their previous exertion towards their completed AS-level examinations. Again, contingencies of self-worth (academic and approval) and socio-economic status (parental education) were tested as possible moderators of the relationship between affirmation and goal pursuit, with a particular focus on parental education as potential moderator of the relation between relationship affirmation and examination focus (because of findings from the previous study). As another addition, the students were asked to indicate how they saw themselves in relation to their ideal selves that they had described at the first time point, and whether they had moved away from or closer to these ideals.

Because the data were gathered from four separate schools, multilevel modelling was carried out to account for possible school-level effects. For each model, an

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unconditional model predicting the outcome with a random intercept, but no predictors apart from gender, was run. For each, school did not predict a significant difference in the outcome, which suggested that multilevel modelling by school was not essential to the analysis. As an additional control, each final model was compared to an identical model which allowed the effect vary at random. Because these models did not improve the model fit, the results presented are the fixed level 1 effects. Results were obtained using mixed models and the PROCESS macro in SPSS. Because previous research has demonstrated gender differences in self-esteem (e.g. Kling, 1999), one of the central variables in the study, gender was controlled for throughout.

Table 4.1. *Descriptive statistics for composite measures at Time 2*

Variable	α	N	Min.	Max.	Mean	SD
Affirmation	.86	157	2.43	7.00	5.20	0.95
Self-Esteem	.90	157	1.30	7.00	4.57	1.29
Ideal Goals Effort	n/a	153	0.00	7.00	6.20	1.08
Ideal Goal Motivation	.79	154	0.00	7.00	5.60	0.89
Exam Focus	.59	161	2.00	7.00	5.02	0.94
Revision Hours	n/a	160	1.00	5.00	3.03	1.18
Revision Comp.	n/a	167	1.00	7.00	4.46	1.40
Ideal Movement	n/a	156	1.00	7.00	4.72	1.35
Life Satisfaction	.87	149	1.00	7.00	4.43	1.35
CSW Approval	.62	157	1.00	7.00	3.62	1.44
CSE Academic	.56	157	1.33	7.00	5.10	1.21
IDACI	n/a	128	0.00	0.78	0.31	0.22

Table 4.2. *Pearson's inter-correlations between composite variables at Time 2*

Variable	1	2	3	4	5	6	7	8	9	10	11	12
1 Affirmation	1											
2 Self-Esteem	.44**	1										
3 Ideal Goals Effort	.19*	.09	1									
4 Ideal Goal Motivation	.30**	.23**	.71**	1								
5 Exam Focus	.36**	.26**	.30**	.21**	1							
6 Revision Hours	.23**	.15	.16*	.14	.43**	1						
7 Revision Comp.	.25**	.17*	.13	.08	.34**	.53**	1					
8 Ideal Movement	.32**	.30**	.10	.20*	.10	.14	.14	1				
9 Life Satisfaction	.38**	.55**	.06	.27**	.07	.09	.08	25**	1			
10 CSW Approval	.-.26**	-.55**	.02	-.12	-.16*	-.20	.01	-.19*	-.35**	1		
11 CSE Academic	.15	-.07	.12	.01	.35**	.30**	.28**	.05	-.07	.14	1	
12 IDACI	.09	-.01	-.02	.09	-.04	.11	.05	.02	-.08	-.17	-.33**	1

Note. ** $p < .01$ ** $p < .001$

Hypothesis 1: Relationship affirmation will be positively related to ideal goal pursuit motivation, revision hours spent, revision comparison, examination focus, movement towards the ideal self, and life satisfaction.

As illustrated in the Table 4.2, relationship affirmation was positively related to the measures of goal pursuit, the revision hours spent, intended examination focus, movement towards the ideal self, and life satisfaction. It was particularly strongly related to the examination focus scale, and to life satisfaction, but all coefficients were highly significant ($p < .001$).

Hypothesis 2: Self-esteem will be positively related to relationship affirmation, and to the outcome measures above.

Self-esteem was strongly positively related to relationship affirmation, and life satisfaction. It was also significantly positively related to ideal goals motivation, revision comparison, examination focus, and movement towards the ideal self. Self-esteem was not, however, significantly related to ideal goals effort or to revision hours.

Hypothesis 3: Relationship affirmation will mediate the positive relationship between self-esteem and ideal goal pursuit motivation.

Because there was no main effect of self-esteem on ideal goals effort, the mediation model was not examined for this outcome. The results of a mutltiple regression model with relationship affirmation and self-esteem predicting ideal goals effort is shown in Table 4.4. The significance of the mediation model was tested using Hayes' PROCESS macro. Using 1000 bootstrap samples for bias-corrected bootstrap confidence intervals, it was estimated with 95% confidence that the indirect effect was

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between .0159 - .1486, which indicates a significant mediation effect, and this is

illustrated in Figure 4.2.

Table 4.3. *Multiple Regression Analysis with Affirmation and Self-Esteem Predicting*

Ideal Goals Motivation controlling for Gender

Model	*B*	SE (*B*)	t	Sig. (*p*)
Constant	4.39	.49	9.05	<.01
Self-Esteem	.08	.07	1.27	.21
Affirmation	.22	.08	2.76	<.01
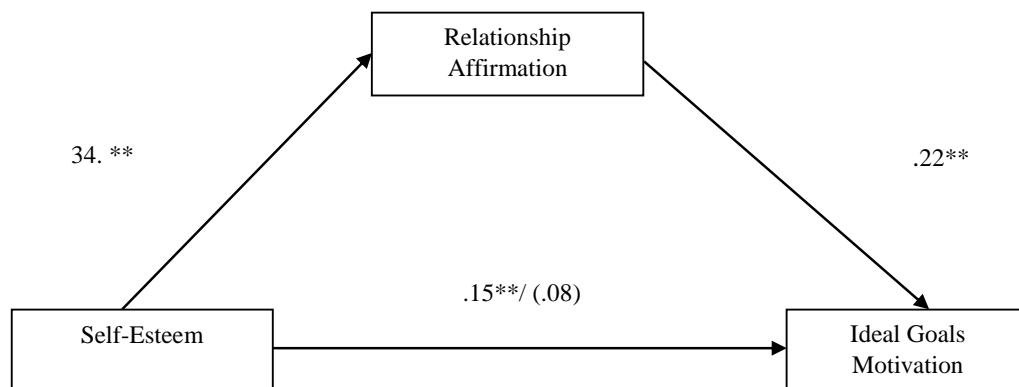
* *p < .001

* p < .001

Figure 4.2. Standardised regression coefficients for the relationship between self-

esteem and ideal goals motivation as mediated by affirmation, controlling for gender.

The standardised coefficient between self-esteem and ideal goals motivation controlling

for affirmation is in parentheses.

Hypothesis 4: Relationship affirmation will mediate the positive relationship between self-esteem and measures of past revision exertion (hours and comparison) and future examination intentions

The present study aimed to take the studies described in previous chapters slightly further by looking at whether the mediation pattern was present, and if so to what degree, when the outcome measures were specified as being related to revision / examination preparation, both past and future.

Firstly, the number of hours per day outside of school that students reported spending on revising for exams (or equivalent) was tested as the outcome measure (*revision hours*).To test the mediation hypothesis, affirmation and self-esteem were added to the model, the results of which are shown in Table 4.4. As shown, only relationship affirmation predicted revision hours. To examine the indirect effect, Hayes' PROCESS macro for SPSS was used. Using 1000 bootstrap samples for bias-corrected bootstrap confidence intervals, it was estimated with 95% confidence that the indirect effect was between .0127 - .1926. Although this is a significant indirect effect, the lack of an independent effect of self-esteem on revision hours when added as the only fixed predictor ($p = .05$), meant that the mediation relationship was not fully applicable. This does not detract support from the importance of relationship affirmation for revision, however.

Table 4.4. *Multiple Regression Analysis with Affirmation and Self-Esteem Predicting Revision Hours, controlling for Gender.*

Model	*B*	SE (*B*)	t	Sig. (*p*)
Constant	1.24	0.67	1.80	0.08
Self-Esteem	0.04	0.08	0.45	0.65
Affirmation	0.27	0.11	2.39	0.01

Secondly, the amount of work the students perceived themselves to have put in towards their recent examinations / assessments (*revision comparison*) was examined as the outcome measure.

As illustrated in Figure 4.3, a significant mediation pattern was found, with relationship affirmation mediating between self-esteem and revision comparison (the extent to which pupils reported studying in comparison to their classmates). Using Hayes' PROCESS macro, with 1000 bootstrap samples for bias-corrected bootstrap confidence intervals, it was estimated with 95% confidence that the indirect effect was between .0394 -.2216.

Table 4.5. *Multiple Regression Analysis with Affirmation and Self-Esteem Predicting Revision Comparison.*

Model	*B*	SE (*B*)	t	Sig. (*p*)
Constant	1.67	0.80	2.09	0.04
Gender	0.37	0.27	1.39	0.17
Self-Esteem	0.08	0.10	0.80	0.43
Affirmation	0.34	0.14	2.46	0.02

Relationship
Affirmation

.34**

.34*

.20*/ (.08)

Self-Esteem

Revision
Comparison

* *p < .001

* p < .01
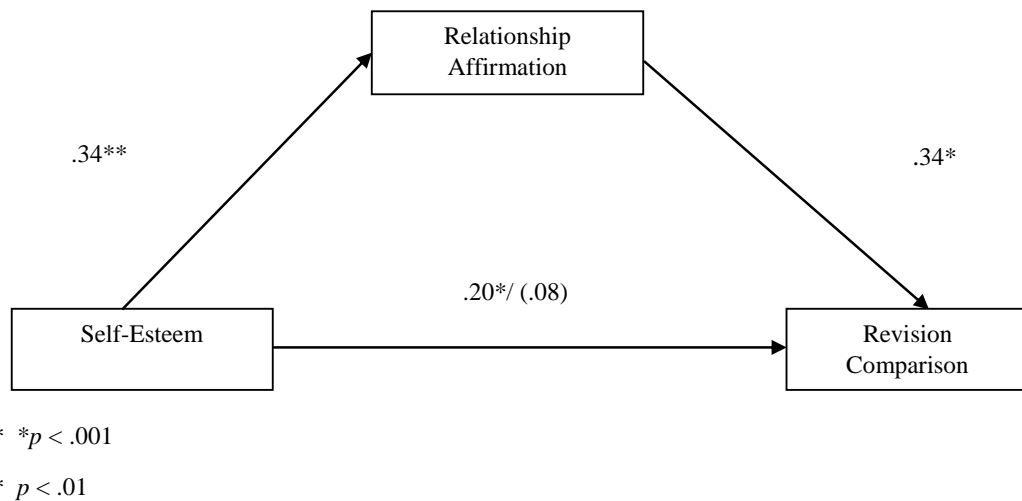
Figure 4.3. Standardised regression coefficients for the relationship between self-esteem and revision comparison as mediated by affirmation, controlling for gender. The standardised coefficient between self-esteem and revision comparison controlling for affirmation in parentheses.

Finally, upcoming examination intentions were operationalised by the *exam focus* scale. As shown in Figure 4.4, relationship affirmation fully mediated the relationship between self-esteem and exam focus. When both predictors were added to the model as fixed effects, only relationship affirmation predicted exam focus, as illustrated in Table 4.6. Using Hayes' PROCESS macro, with 1000 bootstrap samples for bias-corrected bootstrap confidence intervals, it was estimated with 95% confidence that the indirect effect was between .0514 -.1806.

Table 4.6. *Multiple Regression Analysis with Affirmation and Self-Esteem Predicting*

Exam Focus controlling for Gender.

Model	*B*	SE (*B*)	T	Sig. (*p*)
Constant	3.42	0.48	7.13	<0.01
Self-Esteem	0.05	0.06	0.79	0.43
Affirmation	0.33	0.08	3.99	<0.01
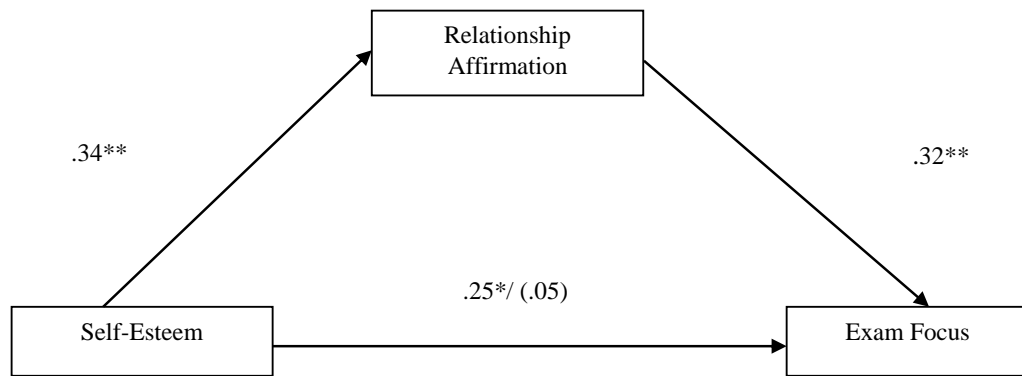
* *$p < .001$

* $p < .01$

Figure 4.4. Standardised regression coefficients for the relationship between Self-Esteem and Exam Focus as mediated by Affirmation, controlling for gender. The standardised coefficient between Self-Esteem and Exam Focus controlling for Affirmation is in parentheses.

Hypothesis 5: Relationship affirmation will mediate the positive relationship between self-esteem and movement towards the ideal self.

As well as goal pursuit, the present study aimed to test the mediation relationship previously found, but with relationship affirmation mediating the effect of self-esteem on perceived movement towards the ideal self (*ideal self movement*).

To test the mediation hypothesis, affirmation and self-esteem were added to the model as fixed predictors of ideal self movement, the results of which are shown in Table 4.7. As shown, both relationship affirmation and self-esteem predicted ideal self movement. To examine the indirect effect, Hayes' PROCESS macro for SPSS was used. Using 1000 bootstrap samples for bias-corrected bootstrap confidence intervals, it was estimated with 95% confidence that the indirect effect was between .0415 - .2599.

Table 4.7. *Multiple Regression Analysis with Affirmation and Self-Esteem Predicting Ideal Self Movement.*

Model	*B*	SE (*B*)	t	Sig. (*p*)
Constant	2.18	0.73	2.99	<0.01
Self-Esteem	0.22	0.09	2.41	0.02
Affirmation	0.37	0.12	3.08	<0.01

Relationship
Affirmation

.34***

.35***

Self-Esteem

.31***/ (.20*)

Ideal Self Movement

*** *p* < .001

** *p* < .01

* *p* < .05
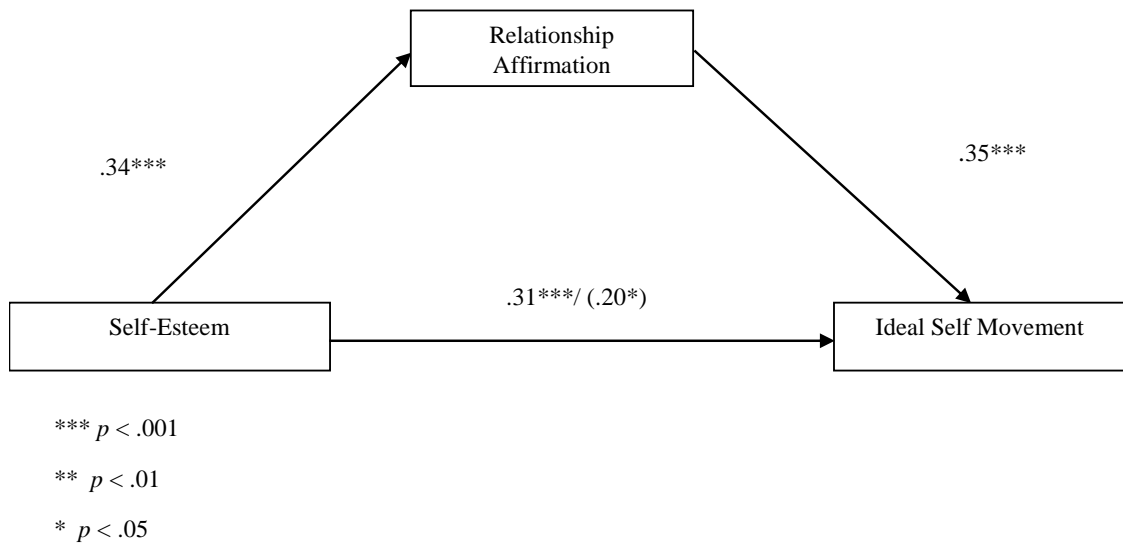
Figure 4.5. Standardised regression coefficients for the relationship between self-esteem and ideal self movement as mediated by affirmation, controlling for gender. The standardised coefficient between self-esteem and ideal self movement controlling for affirmation is in parentheses.

Hypothesis 6: Relationship affirmation will mediate the positive relationship between self-esteem and life satisfaction.

As shown in Table 4.2, both relationship affirmation and self-esteem were significantly related to life satisfaction, with self-esteem being more so, and this remained the case when both predictors were entered into a multiple regression model, the results of which are presented in Table 4.8. Nevertheless, the possibility that relationship affirmation partially mediated between self-esteem and life satisfaction was tested using the PROCESS macro. Using 1000 bootstrap samples for bias-corrected

bootstrap confidence intervals, it was estimated with 95% confidence that the indirect

effect was between .0111 - .1896, and this effect is illustrated in Figure 4.6.

Table 4.8. *Multiple Regression Analysis with Affirmation and Self-Esteem Predicting*

Life Satisfaction, controlling for Gender.

| Model	*B*	SE (*B*)	t	Sig. (*p*)
Constant	2.18	0.73	2.99	<0.01
Self-Esteem	0.22	0.09	2.41	0.02
Affirmation	0.37	0.12	3.08	<0.01

** *p* < .001

* *p* < .01
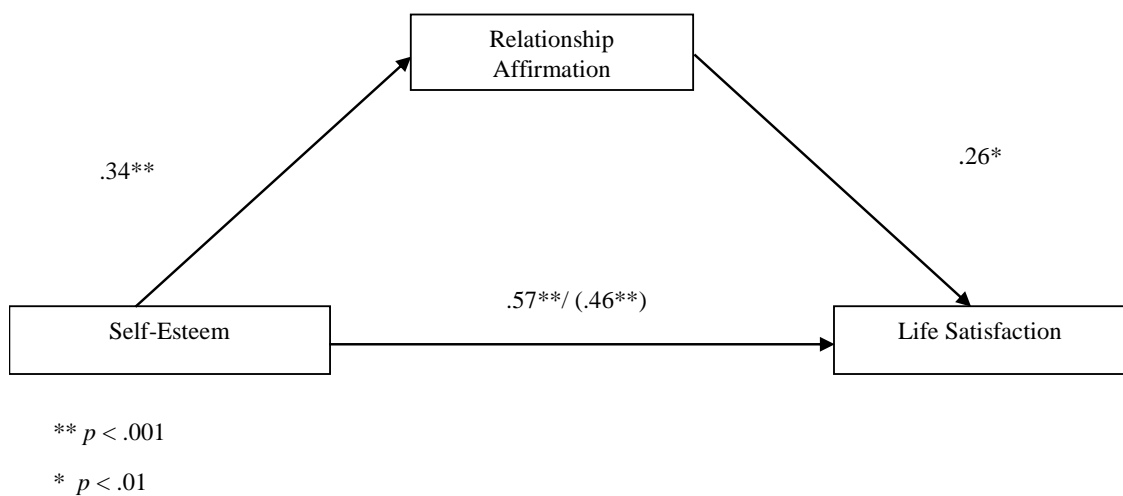
Figure 4.6. Standardised regression coefficients for the relationship between self-esteem

and ideal self movement as mediated by affirmation, controlling for gender. The

standardised coefficient between self-esteem and ideal self movement controlling for

affirmation is in parentheses.

Potential Moderators

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Contrary to the results found in the previous chapter, none of the potential

moderating factors were found to significantly alter the relationship between

relationship affirmation and the motivational outcome measures. The null results from

the analyses of the previous moderating variables are shown in Tables 4.9 and 4.10.

Table 4.9. *Regression Models with CSW Approval as Potential Moderator of effect of Relationship Affirmation on Motivation Outcomes, Controlling for Gender.*

Model	B	SE (B)	t	Sig. (p)
Model 1: Ideal Goals Motivation		.		
Affirmation	0.03	.17	0.20	.84
CSW Approval	-.36	.24	-1.52	.13
CSW Approval *Affirmation	.06	.04	1.45	.15
Model 2: Ideal Goals Effort				
Affirmation	.15	.22	.66	.51
CSW Approval	-.06	.30	-.19	.85
CSW Approval *Affirmation	.02	.06	.41	.69
Model 3: Examination Focus				
Affirmation	.32	.18	1.77	.08
CSW Approval	-.06	.25	-.24	.81
CSW Approval *Affirmation	.01	.05	.13	.90
Model 3: Revision Hours				
Affirmation	.23	.24	.97	.33
CSW Approval	-.13	.32	-.40	.69
CSW Approval *Affirmation	.01	.06	.01	.99
Model 3: Revision Comparison				
Affirmation	.27	.33	.83	.42
CSW Approval	-.12	.43	-.28	.78
CSW Approval *Affirmation	.04	.08	.51	.61

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Table 4.10. *Regression Models with Parental Education as Potential Moderator of effect of Relationship Affirmation on Motivation Outcomes, Controlling for Gender.*

Model	B	SE (B)	t	Sig. (p)
Model 1: Ideal Goals Motivation		.		
Affirmation	.27	.11	2.54	.01
Parental Education	-.26	.84	-0.31	.76
Parental Education *Affirmation	.11	.16	0.69	.49
Model 2: Ideal Goals Effort				
Affirmation	.34	.14	2.51	.01
Parental Education	.40	1.06	0.38	.71
Parental Education *Affirmation	-.04	.20	-0.22	.83
Model 3: Examination Focus				
Affirmation	.27	.14	1.95	.05
Parental Education	-.81	1.09	-0.75	.46
Parental Education *Affirmation	.11	.20	.57	.57
Model 4: Revision Hours				
Affirmation	.21	.19	1.13	.26
Parental Education	-1.12	1.46	-.76	.43
Parental Education *Affirmation	.09	.27	.35	.73
Model 5: Revision Comparison				
Affirmation	.46	.25	1.82	.07
Parental Education	-.56	1.89	-.29	.77
Parental Education *Affirmation	.02	.35	.06	.95

Discussion

The current study added several elements to the first time point, and further illuminated the ways in which the Michelangelo process plays a role in adolescents' important life events. Specifically, the outcome measures were made more concrete, and looked not only at planned behaviour, but also at estimations of recent exertion. The Michelangelo model was supported, with relationship affirmation playing a key role in predicting both measures of motivation, and being positively linked to recent exertions.

Firstly, relationship affirmation was found to be positively related to all outcomes measures. This included the newly added measures assessing short-term goal intentions in the future, and perceived effort exerted in the recent past. Self-esteem was positively related to most of the outcome measures, but not to the measure of intended effort towards ideal-relevant goals (ideal goals effort), or revision hours. This could be due to those pupils with high self-esteem believing that they do not need to exert a great deal of effort, because of their high opinion of their own abilities. Either way, this suggests that relationship affirmation is more strongly linked to motivation than is self-esteem, which supports the proposed model.

Once again, the mediation pattern, whereby relationship affirmation mediates the relationship between self-esteem and goal measures, was supported, as shown in several versions of the model, each with different goal-related outcome measures. As in the previous chapter, relationship affirmation was found to mediate between self-esteem and life satisfaction in this sample, contrary to the findings from the first, university-based sample. This again suggests that it may be that the presence of relationships that are felt to be affirming are of special importance to well-being at school, when pupils' identities are being formed and feedback from others plays an important role.

The moderating effect of parental education level was not found to be significant, however, but, this may be due to the sample size for these particular

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analyses being a great deal smaller because the parental education measure was only assessed at T1, and a proportion of the sample at T2 had not taken part in the first session. This resulted in the sample size being smaller and in a consequential lack of power.

The study was once again limited by several factors. The explorative nature of the research that makes up this thesis meant that the measures used changed between time points according to feedback from students and findings from the most recent session. It would be helpful to have data on all measures assessed at all time points. By the same token, ideally all pupils who took part in the first session would have also taken part in this second one. Unfortunately, this was not possible due to timetabling restrictions, but it did not become apparent until the data had been collected that this would be the case. As mentioned, this influenced some of the analyses, restricting the sample size and statistical power.

Another consequence of the explorative approach was the quite low reliability for a few of the outcome measures, namely examination focus, particularly for the academic CSW and examination scales ($\alpha = .56$ and $.59$ respectively). These were both very short scales, and this may have resulted in the relatively low scores. Removing individual items did not improve the reliability, however, so they were included nonetheless, but this should be considered when interpreting the results, and future studies could incorporate longer scales to tackle this issue.

Finally, the relatively small overall sample size, and the non-random sampling. Because pupils were only recruited from four schools, and the number of pupils taking part from each school varying, it is possible that differences between schools were not detectable in the multilevel models. Nevertheless, the study provided further support for the hypotheses discussed. To increase the robustness of the findings, it was considered necessary to incorporate a longitudinal element to address the same research questions,

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to attempt to establish the direction and causality of the central relationships, and particularly to address the question as to whether having affirming relationships could increase motivation over time. This possibility will be discussed in the following final empirical chapter.

Chapter 5 Longitudinal School Study: Does Relationship Affirmation Predict Goal Motivation over Time?

Motivation over Time

As demonstrated in previous research, and in the preceding chapters, the process of relationship affirmation is key to the positive effects of close supportive relationships on the intentions towards and effort expended to achieve one's goals, which for an adolescent population often concern educational and academic outcomes (Lanz et al., 2001; Nurmi, 2001), especially in girls (Honora, 2002; Majoribanks, 2002; Yowell, 2000). Most research on adolescent goal pursuit to date is cross-sectional in nature, and calls have been made for studies that follow adolescents over time, providing more robust evidence for the contributing factors to particularly academic goal pursuit (e.g. Nurmi, 2004). The current study attempted to address this gap in the literature, focussing particularly on the role of relationship affirmation on goal motivation and academic outcomes.

The importance of successful goal pursuit in adolescence stems in part from the tangible opportunities that goal achievement, particularly relating to academic goals, will lead to. Longitudinal cohort studies have shown that achieving well at school predicts multiple beneficial life outcomes, including health and social inclusion (Rouse, 2005; Waldfogel et al., 2005). Perhaps equally important are the documented positive effects of goal attainment on happiness and subjective well-being (Brunstein, 1993; Brunstein etal., 1998; Sheldon et al., 2010). There is, however, a lack of reliable findings regarding which factors improve adolescents' motivation and the success of their goal pursuit endeavours (Nurmi, 1997).

Relationship affirmation may make achieving education-related goals more likely. This possibility has been supported in the studies described in previous chapter, and is consistent with the Michelangelo model, which posits that movement towards the

ideal self, through the process of relationship affirmation, results in higher levels of well-being and life satisfaction (Drigotas, 2002). To strengthen this assertion, the present chapter considers the longitudinal predictive power of relationship affirmation with regards to goal pursuit and attainment.

Research Overview

The current study aimed to extend previous findings by incorporating a longitudinal element, to better ascertain the influence of relationship affirmation and self-esteem on goal pursuit motivation and examination performance over time. In previous chapters, relationship affirmation, which can be seen as an indicator of having positive close social relationships, has been shown to be linked to an increased optimism and commitment concerning personal goals and the achievement of these. To strengthen this important finding, it is important that the influence of relationship affirmation on goal pursuit is shown longitudinally, and this was the intention of the current study.

Like in the previous chapter, ideal-relevant goal pursuit motivation measures were separated from more short-term, concrete measures of intended examination focus, intended revision hours, and revision in comparison to peers. Unlike in the previous time point, the revision hours and comparison measures concerned upcoming examinations, due to the timing of the pupils' participation (taking place just before their final exams as opposed to just after their AS-level exams).

Hypotheses:

1. Self-esteem at Time 1 will predict relationship affirmation at Time 3, controlling for self-esteem at Time 1.

2. Self-esteem at Time 1 will predict goal pursuit motivation and effort measures at Time 3, controlling for their levels at Time 1.

3. Relationship affirmation at Time 1 will predict goal pursuit motivation and effort measures and life satisfaction at Time 3, controlling for their levels at Time 1.

4. Relationship affirmation will predict life satisfaction at Time 3, controlling for its level at Time 1.

5. Relationship affirmation at Time 1 will predict examination focus, revision measures, and UCAS points at Time 3.

6. Self-esteem at Time 1 will predict relationship affirmation at Time 2, controlling for its level at Time 1.

7. Relationship affirmation at Time 2 will predict Goal Pursuit measures at Time 3, controlling for its level at Time 2.

8. Relationship affirmation will mediate the positive relationship between self-esteem and goal pursuit motivation longitudinally.

Method

Participants

80 students from four Greater London schools took part in the first and final time points in this three time-point longitudinal study, approximately five months after the second time point described in the previous chapter. The final time point was held approximately 11 months after the first time point. At the third time point, the pupils were in their final year of sixth form, and were preparing for their A-level examinations (or equivalent). At each time point, all students in the upper sixth form year of each school were invited to take part, and the resulting participants are those who volunteered to do so. Because the majority of the analyses focused on these 80 participants, their

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details will be described first. The majority of the pupils were female (69%), and went to state-funded school (56%). Most pupils stated their ethnicity as white (50%), followed by Asian / Asian British (27.5%), Black / Black British (8.5%), mixed (8.8%) or other (5%). A sub-set of these pupils (54; 64%) also took part in the second time point. This sample was also analysed separately, and their details are shown in Table 5.4.

Questionnaire Materials (Time 3)

Demographics and background information. Pupils were asked to identify themselves by a unique ID code comprised of their initials and date of birth, so that their data could be removed if necessary and could later be linked to their data from the previous time points. Demographic information, including ethnicity, was gathered at the first time point only, as they were assumed not to have altered in the intervening time. See chapter 3 for details.

Income Deprivation Affecting Children Index. A relative deprivation score, the IDACI (retrieved from http://www.education.gov.uk/cgi-bin/inyourarea/idaci.pl), was calculated for each pupil based on their self-reported post code. See Chapter 3 for details.

Relationship affirmation. Pupils were asked about close affirming others, and the extent to which they felt they had affirming others in their life, using a 15-item Relationship Affirmation Scale. See Chapter 3 for details.

Self-Esteem. Rosenberg's 10-item Self-Esteem Scale (1965) was used to assess global self-esteem. See Chapter 3 for details.

Ideal Self Movement. Pupils were asked to think about the ideal self that they had described in the previous session (the number of months previous was included for those who had not taken part), and to indicate on a Likert scale from 1 (moved away a

lot) to 7 (moved a lot closer) the extent to which they had moved away from or towards their ideal self.

Pursuit of goals related to the ideal self (Ideal Goals Motivation and Ideal Goals Effort). Students were asked to think about their ideal self, and goals related to moving closer to this ideal. They were then asked to indicate their agreement with nine items relating to these goals (see Chapter 3 for details).

Exam focus. 5 items to assess the extent to which the students intended to prioritise revision and preparation for their A-levels (or equivalent) over other areas of their lives (see Chapter 4 for details).

Revision Hours: This measure differed from the Time 2 measure in that it assessed the pupils' revision intentions in the upcoming examinations, rather than their previously taken exams. Students were asked to choose between five options ranging from 0 to 4+ hours, in answer to the following item: "When revising, how many hours do you plan to spend studying per day outside of scheduled school hours, on average?".

Revision Comparison: Again, this measure differed from the Time 2 measure in that it assessed the pupils' revision intentions in the upcoming examinations, rather than their previously taken exams. Students were asked to indicate their answer to the following item, on a 7-point Likert scale ranging from "Much less than average" to "Much more than average": "How much do you think you will work / revise, compared to other pupils at your school?".

UCAS points (AS-levels). All pupils who had completed AS-level examinations during their first year in the sixth form were asked to give their final grades (in letter format). These were then used to calculate the number of UCAS points each individual had achieved using the UCAS calculator (retrieved from https://www.ucas.com/ucas/undergraduate/getting-started/entry-requirements/tariff/calculator). The pupils working towards other forms of

qualifications (e.g. BTEC, International Baccalaureate) were not included in these analyses due to the differing nature and timescales of these forms of assessment, meaning that the UCAS points gained would not be comparable.

Life satisfaction. The 5-item Satisfaction with Life Scale (SWLS; Diener, Emmons, Larsen, & Griffin, 1985), was used to assess the subjective well-being of the students (see Chapter 2 for details).

Procedure

All three time points consisted of questionnaire sessions during school hours, with the questionnaires being administered either via individual computers or using paper-and-pencil versions. The first time point took place in spring 2014, when the pupils were about to sit their AS-levels, during their first year of sixth form college. The second time point took place approximately six months later, when the pupils had received their AS-level results and had just started their A-level preparation in their second and final year of sixth form college. The third and final time point took place approximately five months later in the early spring of 2015 when the pupils were revising for their A-levels examinations, still in their second year of sixth form college. At each time point, the researcher introduced the study and the questionnaires, giving clear instructions and highlighting items that could be confusing, as well as emphasising the confidentiality of the responses. Pupils were encouraged to ask the researcher questions throughout, and were fully debriefed when everyone had finished. Because the questionnaires administered at each time point were similar in content, the pupils were mostly familiar with the procedure by the final time point, and less clarification was needed.

Results

Data Analysis Strategy

The results again focus on the hypothesised centrality of relationship affirmation in predicting positive motivational and well-being outcomes in adolescents, and mediating the effect of self-esteem on these outcomes, with the addition of a longitudinal element. Because the data were gathered from four separate schools, multilevel modelling was carried out to account for possible school-level effects. For each regression model, an identical model apart from the slopes being allowed to vary according to school was created. Because these models did not improve the model fit, the tables presented show the fixed level 1 results. To test the longitudinal relationships, cross-lagged multiple regression models were created within mixed models in SPSS, controlling for the initial levels of the outcome variables. For the mediation analyses, results were obtained using mixed models and the Hayes' PROCESS macro in SPSS (Hayes, 2006). Because previous research has demonstrated gender differences in self-esteem (Kling, 1999), one of the central variables in the study, gender was controlled for throughout.

Table 5.1. *Descriptive Statistics for Composite variables at Time 3 for Participants who Completed T1 and T3*

	α	N	Minimum	Maximum	Mean	SD
Affirmation	.87	78	2.40	7.00	5.33	0.92
Self-Esteem	.88	80	2.10	7.00	4.88	1.15
Ideal Self Movement	n/a	75	2.00	7.00	4.67	1.24
Ideal Goals Motivation	.80	79	3.92	7.00	5.53	0.85

Ideal Goals Effort	n/a	79	3.00	7.00	5.91	1.16
Exam Focus	.61	78	2.00	7.00	4.82	1.11
Revision Hours	n/a	78	1.00	5.00	3.41	1.33
Revision Comparison	n/a	77	1.00	7.00	4.38	1.27
UCAS points	n/a	65	80.00	300.00	179.23	50.45
Life Satisfaction	.84	78	1.00	7.00	4.82	1.27
IDACI	n/a	66	0.00	0.78	0.27	0.22

Table 5.2. *Pearson's Inter-correlations between Main Variables at Time 3*

Variable	1	2	3	4	5	6	7	8	9	10	11
1 Affirmation	1										
2 Self-Esteem	.34**	1									
3 Ideal Self Movement	.24**	.39**	1								
4 Ideal Goals Motivation	.48**	.35**	.25*	1							
5 Ideal Goals Effort	.33**	.21	.23*	.71**	1						
6 Exam Focus	.27*	.41**	.30*	.31**	.28*	1					
7 Revision Hours	.12	.35**	.24*	.27**	.19	.40**	1				
8 Revision Comparison	.23*	.38**	.27*	.23*	.24*	.55**	.52**	1			
9 UCAS points	.20*	.26**	.18	.26*	.23	.40**	.14	.21	1		
10 Life Satisfaction	.52**	.39**	.11	.24*	.15	.28**	.26*	.45**	.30*	1	
11 IDACI	.08	.09	.03	-.07	.02	-.18	-.01	-.13	-.35**	-.23	1

** $p < .001$

* $p < .01$

Table 5.3. *Mean Scores for Main Variables at Time 1 for each Sample Analysed*

Variable	Means at Time 1		
	Sample 1 (*N*= 220)	Sample 2 (*N*=80)	Sample 3 (*N*= 54)
Affirmation	5.23	5.28	5.22
Self-Esteem	4.90	4.91	5.04
Ideal Goals Motivation	5.55	5.53	5.50
Ideal Goals Effort	5.99	5.79	5.82
Life Satisfaction	4.45	4.86	4.71

Note. Sample 1 completed T1, sample 2 completed T1, T3, sample 3 completed T1, T2, T3

Table 5.4. *Mean Scores for each time point in participants who completed all three time points*

Variable	Time 1	Time 2	Time 3
Affirmation	5.28	5.25	5.37
Self-Esteem	4.91	4.78	4.71
Ideal Goals Motivation	5.53	5.70	5.56
Ideal Goals Effort	5.79	6.22	5.89
Life Satisfaction	4.86	4.60	4.78

Hypothesis 1: Self-esteem at Time 1 will predict relationship affirmation at Time 3, controlling for relationship affirmation at Time 1.

The hypothesis that self-esteem would predict an increase in relationship affirmation over time was not supported, as shown in Table 5.5. The strong positive correlation between affirmation T1 and T3 suggests that it may have remained relatively stable over time. This lack of change in affirmation also suggested that the mediation pattern would not be evident over time.

Table 5.5. *Multiple regression analysis with self-esteem T1 predicting relationship affirmation T3, controlling for relationship affirmation T1.*

Model	B	SE (B)	t	Sig. (p)
Model 1: Affirmation T3				
Affirmation T1	.60	.11	5.58	< .001
Self-Esteem T1	.12	.08	0.14	.16

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Hypothesis 2: Self-esteem at Time 1 will predict goal pursuit motivation and effort measures at Time 3, controlling for their levels at Time 1.

As shown in Table 5.6, self-esteem at T1 did not significantly predict either motivation to pursue ideal relevant goals at T3 or intended effort to pursue ideal goals at T3 when controlling for their levels at T1. The lack of a main effect of self-esteem meant that it was not deemed relevant to test for the indirect effect of relationship affirmation as mediator, but once again does not go against the theoretical mediation model, but rather indicates that the relation between self-esteem and ideal-relevant goal pursuit motivation is less reliable than that between relationship affirmation and motivation.

Table 5.6. *Multiple Regression Analyses with Self-Esteem T1and Goal Pursuit T1*

Predicting Goal Pursuit T3, controlling for Gender.

Model	B	SE (B)	t	Sig. (p)
Model 1: Ideal Goals Motivation T3				
Ideal Goals Motivation T1	.20	.14	1.43	.16
Self-Esteem T1	.14	.10	1.36	.18
Model 2: Ideal Goals Effort T3				
Ideal Goals Effort T1	.26	.12	2.14	.04
Self-Esteem T1	.13	.12	1.03	.31

Hypothesis 3: Relationship affirmation at Time 1 will predict goal pursuit

motivation and effort measures at Time 3, controlling for their levels at Time 1.

The central component of the Michelangelo process, relationship affirmation,
was shown to predict goal pursuit motivation in the previous three chapters. To extend
and corroborate these findings, the current study attempted to illustrate the same pattern
longitudinally. As shown in Table 5.7, relationship affirmation at Time 1 (T1)
significantly predicted ideal goals motivation, and ideal goals effort at Time 3 (T3),
even when controlling for their levels at T1. In fact, for both measures of goal pursuit,
affirmation was a stronger predictor than their levels of goal pursuit at T1, further
confirming the importance of close relationships to pursuing one's goals.

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Table 5.7. *Multiple Regression Analyses with Affirmation T1and Goal Pursuit T1*

Predicting Goal Pursuit T3

Model	B	SE (B)	t	Sig. (p)
Model 1: Ideal Goals Motivation T3				
Ideal Goals Motivation T1	.19	.12	1.58	0.12
Affirmation T1	.36	.11	3.15	< .01
Model 2: Ideal Goals Effort T3				
Ideal Goals Effort T1	.22	.11	2.04	< .05
Affirmation T1	.54	.15	3.72	< .01

Hypothesis 4: Relationship affirmation will predict life satisfaction at Time 3, controlling for its level at Time 1.

Although relationship affirmation at T1 did predict life satisfaction at T3, when life satisfaction levels at T1 were also entered into the model, affirmation no longer significantly predicted life satisfaction, as shown in Table 5.8.

Table 5.8. *Multiple Regression Analysis with Relationship Affirmation T1 predicting Life Satisfaction T3, controlling for Life Satisfaction T1.*

Model	B	SE (B)	t	Sig. (p)
Model 1: Life Satisfaction T3				
Life Satisfaction T1	.42	.14	2.99	< .01
Affirmation T1	.06	.20	0.30	.77

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Hypothesis 5: Relationship affirmation at Time 1 will predict examination focus, revision measures, and UCAS points at Time 3.

For the examination and grade related outcome measures, there were no T1 data to control for, meaning that cross-lagged regression analyses were not possible. However, Table 5.9 shows that relationship affirmation at T1 significantly predicted examination focus, revision comparison, and, perhaps most interestingly, UCAS points at T3. However, affirmation at T1 did not significantly predict the number of hours that pupils intended to invest in revising for their exams.

Table 5.9. *Multiple Regression Analyses with Affirmation T1 predicting Exam Focus T3 and UCAS points T3*

Model	B	SE (B)	t	Sig. (p)
Model 1: Exam Focus				
Affirmation T1	.31	.15	2.13	< .05
Model 2: Revision Hours				
Affirmation T1	.07	.14	0.54	.59
Model 3: Revision Comparison				
Affirmation T1	.35	.17	2.05	< .05
Model 4: UCAS points				
Affirmation T1	14.84	7.18	2.07	< .05

Hypothesis 6: Self-esteem at Time 1 will predict relationship affirmation at Time 2, controlling for its level at Time 1.

As shown in Table 5.10, when controlling for the initial levels of relationship affirmation in the sample, self-esteem T1 was a marginally significant predictor of relationship affirmation T2.

Table 5.10. *Multiple Regression Analysis with Self-Esteem at T1 predicting Relationship Affirmation at T2, controlling for Gender and Relationship Affirmation at T1*

Predictor	B	SE (B)	t	Sig. (p)
Gender	0.29	0.24	1.22	0.23
Affirmation T1	0.53	0.14	3.88	<0.01
Self-Esteem T1	0.20	0.11	1.73	0.09

$R^2 = .37$, $F(3,47) = 9.32$, $p < .001$

Hypothesis 7: Relationship affirmation at Time 2 will predict ideal goal pursuit measures at Time 3 when controlling for their levels at Time 2.

As illustrated in Table 5.10, relationship affirmation at Time 2 did not significantly predict ideal goals motivation at Time 3 when ideal goals motivation at Time 2 was controlled for within the model. Similarly, as shown in Table 5.11, relationship affirmation at Time 2 did not significantly predict ideal goals effort at Time 3 when the level of ideal goals effort at Time 2 was controlled for.

Table 5.11. *Multiple regression analysis with relationship affirmation at T2 predicting ideal goals motivation at T3, controlling for gender and ideal goals motivation at T2*

Predictor	B	SE (B)	t	Sig. (p)
Gender	-0.05	0.24	-0.22	0.83
Ideal Goals Motivation T2	0.45	0.18	2.49	0.02
Relationship Affirmation T2	0.16	0.14	1.14	0.26

$R^2 = .26$, $F (3,47) = 5.41$, $p < .01$

Table 5.12. *Multiple Regression Analysis with Relationship Affirmation at T2 predicting Ideal Goals Effort at T3, controlling for Gender and Ideal Goals Effort at T2*

Predictor	B	SE (B)	t	Sig. (p)
Gender	-0.36	0.33	-1.11	0.27
Ideal Goals Effort T2	0.36	0.20	1.78	0.08
Relationship Affirmation T2	0.22	0.19	1.17	0.25

$R^2 = .18$, $F (3,47) = 3.48$, $p = .02$

Hypothesis 8: Relationship affirmation will mediate the relationship between self-esteem and goal pursuit motivation and examination focus longitudinally.

The results in the previous chapters have demonstrated a mediation effect, whereby relationship affirmation mediates between self-esteem and goal pursuit

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motivation. For this effect to be more convincing, the current study intended to show it occurring over time. However, because there was no main effect of self-esteem (T1) on goal pursuit or ideal self movement (T3) when controlling for their initial levels (T1), it was not possible to test the mediation model this way.

Discussion

This study brought together the data from previous cross-sectional studies, along with a final additional time point, to form a more robust test of the novel application of the Michelangelo model proposed in this thesis, by examining the same research questions in a longitudinal design. The findings are in support of the model, and of the importance of relationship affirmation to goal pursuit, and ultimately to goal attainment. The role of self-esteem in bolstering adolescents' ability to succeed has been addressed in previous chapters, with results indicating that rather than influencing goal pursuit directly, self-esteem improves the likelihood that individuals are able to form and maintain affirming relationships with others, which then improves their motivation and work intentions concerning their important goals. This mediation hypothesis was not tested longitudinally in these analyses, because of the lack of a main effect of self-esteem relationship affirmation or goal pursuit. This may be because relationship affirmation stayed relatively constant within the timeframe of the study, as it took place over period of less than a year, meaning that there may not have been sufficient time for pupils to form or improve upon relationships with others.

The findings indicate that relationship affirmation is indeed central to adolescents' motivation to pursue their important personal goals, which due to the stage at which the current sample were at (in the midst of completing their AS/A-level examinations) mostly focussed on doing well academically. Over time, the relationship

affirmation that pupils reported receiving at the first time point predicted goal pursuit motivation generally six months later, as well as the effort they intended to exert in order to achieve their goals, even when controlling for their initial levels of motivation. This supports and strengthens the cross-sectional findings described in previous chapters. Similarly, although cross-lagged analyses were not possible, the positive link between relationship affirmation at the first time point and UCAS points at the final time point suggests that the influence of affirmation is likely to go beyond mere motivation, and result in improved outcomes for young people, which could have important implications.

Chapter 6 Discussion

The Importance of Relationship Affirmation and Self-Esteem in Adolescence

Forming a personal identity and the composites of an ideal self is a crucial part of adolescence (Erikson, 1959; Oyserman & Markus, 1993), and the notion of this ideal self and related goals help to motivate and inspire young people to behave in ways that make moving towards the ideal a real possibility (Oyserman et al., 2006). The current research illustrates the importance of affirming relationships for motivating youths to exert the required effort to pursue their important goals, and the role of self-esteem in making the formation and maintenance of these relationships more likely, findings which could inform the ways in which interventions are targeted at demotivated and academically struggling pupils.

The sequence of studies that make up this thesis examined the interactive effects of intra- and interpersonal factors on motivation and self-regulation, each building upon the previous ones to examine the way in which motivation, achievement, and well-being are influenced by both relational factors (affirmation) and personal characteristics (self-esteem), whilst also taking into account socio-economic factors.

This final discussion chapter outlines the findings described in the four preceding empirical chapters, highlighting the key points and discussing them in the wider context of the theoretical background on which the thesis was built. A discussion on possible implications will follow, including a consideration of the weaknesses of the studies and methods adopted, and ideas for ways of addressing these and building upon initial findings in the future. Finally, overall conclusions will be drawn.

Chapter 2: The Michelangelo Phenomenon and Self-Esteem in University Students: Can the Model be Applied to Non-Romantic Relationships?

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In this first explorative study, the primary objective was to ascertain whether the Michelangelo Phenomenon is applicable to first-year undergraduates, and the potential role of self-esteem in the process with a focus on whether relationship affirmation is as important in relationships other than romantic duos, and whether self-esteem increases the likelihood of individuals having such relationships. Substantive research has supported the Michelangelo model's ability to explain the processes underlying the ways that supportive relationships help individuals to move towards their ideal selves, particularly with regards to the role of relationship affirmation (Drigotas et al., 2002). The study maintained the focus on ideal self movement, using a measure of ideal self proximity (from which ideal self movement is then derived) used in previous research (Rusbult et al., 2004). For the current series of studies, however, an adapted affirmation scale was utilised, altered to suit non-romantic relationships, and to include the possibility of referring to more than one close relationship ("I have people in my life who…"). The scale also differed from previous studies in that it combined both perceptual and behavioural affirmation, rather than analysing these separately, in an attempt to measure the overall underlying construct of affirmation. This decision was based on the similarity of the constructs, and the fact that the hypotheses being tested addressed affirmation as a whole (both perceptual and behavioural) rather than separately. This, and subsequent studies, supported the use of this new version of the scale, with a high level of reliability and predictive power being shown throughout.

Because previous research with couples had shown that relationship affirmation predicted movement towards the ideal self (Drigotas et al., 1999), the study aimed to test whether this was replicable in non-romantic relationships, using the newly adapted scale. This did indeed prove to be the case, with relationship affirmation being associated with reporting more movement towards the ideal in the past, and more anticipated movement in the future. This finding supported the applicability of the

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Michelangelo model to multiple forms of relationships, and not merely romantic ones. This makes sense theoretically, as the types of close bonds formed vary greatly according to stage of life, culture, and personal preferences, but a desire to feel socially included and understood is a fundamental human need (E. L. Deci & Ryan, 2002; Leary, 2005).

As well as examining whether relationship affirmation predicted ideal self movement, the study aimed to test whether it also predicted the students' motivation to pursue the goals they specified as relevant to this ideal self, and this was indeed shown to be the case. Equally importantly, a mediation model was trialled, testing whether relationship affirmation mediated the positive relationship between self-esteem and goal pursuit. The mediation relationship was supported, which was a novel finding, and paved the way for the studies that followed.

Finally, relationship affirmation was also shown to predict life satisfaction, illustrating the importance of positive social relationships for well-being. However, affirmation did not mediate the relation between self-esteem and life satisfaction, as was hypothesised by the model. This is understandable, given the documented link between self-esteem and subjective well-being, but nevertheless went against the predictions of the model.

As mentioned, most previous work on the Michelangelo model has looked at movement towards the ideal self, as this is what the model centres around. This first study attempted to unpick this slightly, and incorporate the motivational factors that underlie this movement. The fact that relationship affirmation predicted motivation and intended effort to pursue goals was encouraging, and in line with research linking social support to efficient self-regulation in other domains, such as health (Holt-Lunstad, Smith, Baker, Harris, & Stephenson, 2015).

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The impact of relationship affirmation and its mediating role between self-esteem and motivation were novel findings in university students, and suggested that these factors may have been instrumental in helping them to exert the effort needed to do well at school, and to achieve the necessary examination results to gain entry into university, thus improving their chances of a happy and healthy future (Easterbrook, Kuppens, & Manstead, 2015). In order for this possibility to be investigated, a younger population needed to be sampled, and the subsequent studies therefore attempted to extend the findings to adolescents, in an effort to clarify the ways in which self-esteem and relationship affirmation influence their motivation to pursue important goals related to their ideal selves.

Chapter 3: Self-Esteem, Relationship Affirmation, and Goal Pursuit in Adolescence: Cross-Sectional School Study

The second empirical chapter describes the analysis of the first time point of a longitudinal questionnaire study that was carried out in four schools across Greater London. The study aimed to extend the previous study carried out on university undergraduates, to look at younger adolescents, who were in the final years of school. They were no longer in compulsory education, but were in the middle of the transition between school and university or careers, where motivation and self-regulation are of utmost importance, but are in conflict with a variety of other potential factors (increasing independence, social opportunities, and self-esteem; Meier, Orth, Denissen, & Kühnel, 2011). This stage also acts as a transition to adulthood, with most pupils turning 18 and becoming legally responsible for themselves, which, combined with the emergence of a sense of identity and increasing clarity surrounding the possible selves they wish to pursue (Becker et al., 2014) makes this an extremely interesting target for this research.

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The study used similar measures to those used for the university students, but the goal pursuit scale was expanded upon, and an additional scale concerning only academic goals was added. This was an attempt to determine whether there would be a difference between the role of affirmation in predicting academic goals as opposed to their own specified goals related to their ideal self. It was theorised that the relationships would be similar, and that the majority of the goals related to the pupils' ideal selves would be academic, and this was indeed found to be the case, with almost all pupils specifying goals that related to doing well in their examinations or coursework. For this reason the specific academic items were excluded from subsequent time points, as they were deemed somewhat repetitive.

As hypothesised, relationship affirmation predicted the goal pursuit measures, as well as life satisfaction. Self-esteem was found to predict affirmation and goal pursuit, and the mediation model was also supported, with relationship affirmation mediating the link between self-esteem and each of the goal pursuit measures. For the full ideal goals motivation scale, this mediation was partial, whereas for the more specific intended effort item (ideal goals effort), the mediation was full. This was encouraging, because part of the intention behind the study was to illustrate the practical implications of the Michelangelo model, and specifically relationship affirmation, in relation to self-regulation.

Relationship affirmation was also found to mediate the positive link between self-esteem and life satisfaction in this second time point, unlike the results outlined in the previous chapter. This could be attributed to differences between the samples, and between the roles that social relationships play in school pupils' lives versus those of university students. During early adolescence, it could be theorised that feeling accepted and positively regarded by others is of particular importance, and especially at school, where pupils are required to spend most of their time.

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Self-esteem remained a strong predictor of life satisfaction when both were entered in the model, but the fact that relationship affirmation explained more of the variance in life satisfaction points to its importance for well-being, over and above as an instigator for movement towards the ideal self. This dovetails with a body of research showing a reliable association between both self-esteem and well-being, and relationships or social connectedness and well-being (Baumeister et al., 2003) (Srivastava, McGonigal, Richards, Butler, & Gross, 2006).

The study also expanded on the previous one by incorporating measures of socio-economic status (SES) not previously available. These were intended to be tested as exploratory potential moderators of the relationship between relationship affirmation and goal pursuit, due to their potential theoretical interest, with no apriori hypotheses specified. Although economic deprivation (as measured by the IDACI) was not found to be a statistically significant moderator of any of the outcome variables, parental education (degree-level vs. non degree-level) was a marginally significant moderator for the effort pupils planned to put into achieving academic goals, with pupils whose parents had not achieved university degrees benefitting more from affirming relationships. This is consistent with research showing that parental education influences identity (Kuppens, Easterbrook, Spears, & Manstead, 2015). It seems plausible that although having parents with degrees provides an initial advantage, making academic success seem within reach, the potential disadvantage of not having parents with higher education can be overcome if adolescents are able to cultivate relationships where they feel that their important goals are understood and judged as attainable.

As well as measures of SES, this study included two contingencies of self-worth (CSW) as potential moderators (academic and approval), and the approval subscale was found to be a marginal moderator of the relationship between relationship affirmation

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and the motivation pupils reported regarding their ideal self relevant goals, such that pupils with higher levels of CSW Approval generally had lower levels of motivation, but benefitted more from affirming relationships than did those with lower need for approval. The fact that having close others who believed in them achieving the goals in question (affirming relationships) made the individuals who based their self-worth on the approval of others more inclined to seek their approval by exerting themselves to achieve these goals seems logical, but it is possible that the approval they were looking for is not the most effective way of increasing motivation and pursuing goals in the long-term. The literature on CSW has shown that having one's self-worth be contingent has negative associations with well-being and achievement, presumably due to a lack of self-determination and intrinsic motivation (Crocker & Park, 2004; Ryan & Deci, 2000).

Chapter 4: Replication and Extension: Second Time Point in School Study: Prioritising School Work

The second time point of the school study found similar results to those from the first time point, with the addition of some more specific outcome variables, to further examine the influence of relationship affirmation on motivation surrounding examinations and school work. Again, relationship affirmation was found to predict pupils' motivation to pursue goals related to their ideal self, and the effort they intended to exert towards doing so. In addition, relationship affirmation predicted the extent to which they were focussed on their upcoming exams or coursework, the hours they had devoted to preparing for their exams or coursework, and the amount of time they had spent preparing relative to their classmates. Self-esteem also predicted all these outcomes, apart from the number of hours they reported spending on examination

preparation. The addition of these outcome variables allowed for a clearer picture, in part by the inclusion of both past and future measures, so as to strengthen the findings.

As well as these additional school-related measures, a measure of movement towards the ideal self was included, where pupils were asked to indicate how much they felt they had moved away from or towards the ideal self they had described at the first time point. Relationship affirmation was found to predict more positive movement, as was hypothesised.

The mediation model, whereby relationship affirmation mediated between self-esteem and the outcome measures, was significant for all outcome measures, apart from revision hours, where there was no main effect of self-esteem. This supports the theory that self-esteem exerts its effect on motivation and goal pursuit by influencing the extent to which people are able to form and maintain affirming relationships, which in turn allows for more effective self-regulation. The mediation pattern held true regardless of the outcome in question, although the extent of the mediation did vary somewhat, being most pronounced for the relation between self-esteem and the examination-related outcomes. The fact that the mediation remained significant points to the fundamental importance of relationship affirmation to motivation and goal pursuit, as it consistently accounted for more variance in the outcome than self-esteem.

Unlike in the previous time point, the analyses for this sample did not reveal any significant moderators of the relationship between relationship affirmation and any of the outcomes. This may be in part explained by the smaller sample size than took part in the first time point (see limitations, below), but as these were also marginal moderation effects, it is perhaps questionable how important they are when considering the effect of relationship affirmation. No significant moderation results were found for the final time point, or longitudinal analyses, so these are not discussed further.

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Chapter 5: Longitudinal School Study: Does Relationship Affirmation Predict Goal Motivation over Time?

The final analyses further strengthened the findings by adding a longitudinal element, in an attempt to illustrate the influence of relationship affirmation over time. Using cross-lagged regression models, controlling for the level of the outcome at the first time point, relationship affirmation was shown to predict the extent to which pupils were motivated to pursue their ideal self relevant goals at the third time point, and more specifically the effort they were willing to exert to achieve these goals. These findings make the link between relationship affirmation and goal pursuit more difficult to dispute.

For those outcome measures that were not assessed at the first time point, namely those relating more specifically to examinations and school work, affirmation at time 1 predicted their levels at time 3. Although these results were not as conclusive as the cross-lagged analyses, they nevertheless provide more support for the importance of relationship affirmation, and the Michelangelo model in this population. For this final time point, the pupils who were studying for AS-levels were able to report their AS-level results, and analyses revealed that relationship affirmation at the first time point predicted AS-level results eight months later.

Contrary to what was hypothesised, self-esteem did not predict relationship affirmation longitudinally when controlling for affirmation levels at the first time point. This may be explained by the time period in question, however, as eight months is a relatively brief period in which to expect marked changes in relationships, especially in regards to making new ones. The strong correlation between relationship affirmation levels at both time points indicates that levels of relationship affirmation stayed relatively constant throughout the eight month period.

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The same was true for the relationship between relationship affirmation and life satisfaction. Although there was a positive link, when initial levels of life satisfaction were controlled for, relationship affirmation no longer significantly predicted life satisfaction at time 3. Again, this suggests that life satisfaction stayed quite stable over the time frame covered.

Finally, because of the lack of a main effect of self-esteem (T1) on relationship affirmation (T3), the mediation model was not supported, but as discussed previously, this may in part be due to the short timeframe meaning that although changes in goal pursuit occurred, levels of relationship affirmation remained relatively constant.

General Discussion

Overall, the findings from the studies described point to the central importance of relationship affirmation for motivation, and suggest that social relationships play a more significant role in success and achievement than they are often given credit for. Equally importantly, self-esteem was shown to exert its influence on motivation and goal pursuit via relationship affirmation, which consistently accounted for more of the variance in goal pursuit, and in many cases fully mediated the effect of self-esteem. This is a novel and important finding, with many potential applications and avenues for future research, both in terms of confirming the current findings and applying the model to other populations and forms of goal pursuit.

The outcomes measures tested in the studies described were varied, but centred on goal pursuit, and particularly the pursuit of goals requiring a substantial amount of self-regulation. The current results could therefore be applicable to many other situations where self-regulation is required to achieve desired outcomes, such as potentially life-saving health regimens. For instance, it seems likely that having affirming relationships would be beneficial for people attempting to abstain from

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substance use, or remain compliant with their antipsychotic medication. Indeed, the immensely popular AA and NA programmes use social mentoring as a central tenet to their programme of recovery from addiction (Cloud et al., 2008), and social psychiatry interventions have been shown to improve symptoms and well-being over time (e.g. Lam 1991). The current research helps clarify some of the processes that may be at work.

The importance of the ideal self for motivation, especially during adolescence, is emphasised by the current findings, in line with Markus and Nurius' statement that "…development can be seen as a process of acquiring and then achieving or resisting certain possible selves" (Markus & Nurius, 1986, *p*. 955). It is important to note that relationship affirmation, although related to the concept of social support, extends this to encompass a level of understanding and support for one's ideal self. This is not only helpful practically when it comes to pursuing one's goals, but also leads to an increased sense of autonomy, and self-determination (Deci & Ryan, 2000). It seems likely that more generic social support would be equally beneficial for well-being, but perhaps less so for motivation to pursue the ideal self. This is something that could be tested explicitly in future research by taking measures of more general social support or social network analysis as well as relationship affirmation, and comparing their predictive power for various motivational and well-being outcomes.

The importance of relationship affirmation for adolescents is not something that has been the explicit subject of research previously, although often studies concerning parent-child relationships involve similar concepts. For instance, research has shown that having parents who support their children's intrinsic rather than extrinsic goals is beneficial for well-being and success e.g. (Wouters et al., 2014). The present body of work supports such findings, and suggests that relationship affirmation may underlie the previously controversial link between self-esteem and academic achievement. The

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findings point to a different way of considering the role of self-esteem in promoting success and other positive outcomes. Previously, there has been a great deal of debate regarding whether self-esteem actually is a beneficial trait, with concern arising due to the apparent miss-match between the public perception (self-esteem is good and should be enhanced) and empirical research, where the validity of the link between self-esteem and positive outcomes has been questioned (e.g. Baumeister et al., 2003).

The results suggest that, in adolescence, self-esteem is beneficial to motivation and life satisfaction via increasing relationship affirmation, which consistently accounted for more of the variance in positive outcomes than did self-esteem. On its own, believing in oneself may not hold the key to success, but having close others who also have faith in one's abilities and prospects may provide the scaffolding needed to pursue one's most important goals.

Limitations and Future Directions

The samples used in the current dissertation were skewed in that they consisted of mainly females which may have biased the results somewhat, and made them less generalisable to the entire adolescent population. Research has found that self-esteem tends to differ between males and females, with adolescent girls generally reporting lower levels of self-esteem (Greene & Way, 2005; Kling, 1999; Reddy et al., 2003). This was the case in the current samples, but the few male participants made separate analyses according to gender an impossibility. Instead, gender was controlled for throughout.

Similarly, research has shown that girls tend to report more education-related goals (Honora, 2002; Majoribanks, 2002; Mau & Bikos, 2000; Yowell, 2000), and to be more focused on social relationships than their male counterparts (Anderman & Anderman, 1999; Chang et al., 2006; Cross & Madson, 1997; Kasser & Ryan, 1993;

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Lanz & Rosnati, 2002). These factors suggest the possibility that boys may not benefit as much from affirming relationships as girls, at least when it comes to educational motivation. However, gender differences in terms of the goals reported have been found to be decreasing in line with reduced gender role stereotyping (Massey, Gebhart, & Garnefski, 2008), which is encouraging both for gender equality and in terms of the generalisability of the current findings. Nevertheless, it would be of interest for future research to examine differences between males and females, to determine whether the patterns found in the current thesis hold for both genders.

Another limitation of the studies described arises from the fact that the measures were entirely self-reported and subjective, apart from AS-level grades (converted to UCAS points). For relationship affirmation, this can be considered less of a problematic issue, as the perception of affirmation is the construct of interest, so the actual levels of affirming behaviours or perceptions of close others is less important than the extent to which the individual in question feels that she is affirmed. For goal pursuit motivation, it is arguably more problematic, as motivations do not always translate into actions. However, adolescence is the stage at which goal planning has been found to reliably predict subsequent behaviour (Davis-Kean et al., 2008), with plans to exert towards achieving at school being related to academic and behavioural outcomes (Beal & Crocket, 2010; Dubow et al., 2001). Also, the fact that relationship affirmation was found to predict AS-level grades eight months later as well as predicting motivation validates the use of motivation as an outcome. Nonetheless, it would certainly be useful for future studies to include teacher ratings of effort exerted at school, as well as the pupil's own ratings of extracurricular work included in these studies.

The longitudinal element of the research described is one of its strengths, but the findings would be bolstered by having a greater number of follow-ups, preferably with longer time periods covered. Also, due to practical issues at the schools sampled, the

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second time point contained fewer of the original cohort than the third time point, meaning that these participants were not included in some of the longitudinal analyses due to a lack of power. Also, at one of the schools where only a small sample of pupils took part at the first time point, these same pupils did not take part in the third time point. This, as well as other practical difficulties that were encountered, meant that the characteristics of the sample cross-sectionally analysed in Chapter 3 varied in many ways from the sample who completed two or more time points. Although this does not detract from the relevance of the findings, it would be beneficial for future research with greater resources to recruit a larger sample and ensure that at least a large majority of these participants are willing to take part in subsequent follow-ups, perhaps by offering monetary compensation, or course credits, for time spent.

Similarly, due to the exploratory nature of the study, many of the variables included in the final time point were not included in the first time point, meaning that cross-lagged regression analyses were not possible for all outcomes, but only for the main predictors, so this is something that could be improved upon in future studies. It would be particularly interesting to follow a cohort of pupils all the way through their two years of upper secondary school, with the addition of qualitative interviews with a subsample, to gain a richer perspective on their experiences of affirming relationships and their pursuit of their ideal selves and academic goals.

The open-ended format that allowed participants to think about any close relationships when rating their affirmation levels was also a strength of the studies in the current work, but future research could benefit from incorporating analyses into which type of relationship partners are most beneficial when it comes to enhancing people's motivation to pursue their goals. The original Michelangelo model was influenced by interdependence theory (Drigotas et al., 1999), and assumed romantic relationships to be the closest and most interdependent form of relationship, and

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therefore the most influential. However, when focusing on adolescents or children, it may be that parental affirmation is even more important. This is an interesting avenue for future studies to explore.

Implications of Findings

The importance of education is well documented. Low education levels have been linked to numerous negative outcomes, including poor health, job prospects, and well-being (Marmot & Wilkinson, 2006; Hudson, 2005), as well as less apparent outcomes such as increased authoritarianism and political apathy (Coenders & Shceepers, 2003; Persson, 2013). These links hold when other potentially stronger predictors of negative outcomes are controlled for, such as socio-economic status (Easterbrook, Kuppens, & Manstead, 2015), illustrating the predictive power of education. It is therefore likely that improving adolescents' motivation to succeed at school and attend university is one of the most efficient ways to address inequality. In order to do this, they need to believe that this is something that is realistic for them (Boxer et al., 2011). Indeed, scholars have proposed that one of the main underlying factors behind the lack of mobility within society is due to children and adolescents' personal identification processes with regards to education, with those individuals without parents that have degrees not seeing higher education as an attainable goal for themselves (Kuppens et al., 2015).

Findings such as these, which identify social and personal identification factors as crucial, suggest that socio-psychological interventions may be the most beneficial way to help these pupils enhance their aspirations for the future, and consequentially help society as a whole. Substantial research indicates that aspirations in young adulthood have the power to influence subsequent behaviour (e.g. Beal & Crocket,

2010, Davis-Kean et al., 2008), and ability to self-regulate in childhood and adolescence has long-term consequences (Easterbrook, Kuppens, & Manstead, 2015).

The longitudinal element of the studies described allowed for greater clarification surrounding the processes involved, and although not entirely conclusive, the results certainly suggested that relationship affirmation acts as a powerful predictor of motivation over time, even when controlling for participants' initial levels of motivation. It would be useful to find out more about these affirming relationships in future research, particularly relating to who people find most affirming.

It is likely that having close others, whether it be friends, family members, or partners, who are aware of these aspirations and support individuals in their pursuit, are key to the aspirations becoming part of the identity, and related goals being prioritised successfully. The sequence of studies that make up the current thesis indicate that having supportive relationships, where the partner in question (whether parent, peer, mentor or romantic partner) believes that they can achieve their goals, is key to increasing and sustaining motivation in relation to important academic goals. These findings, if strengthened by further research, could be used to inform interventions based around mentorship schemes or peer support, as well as using positive psychology interventions to enable pupils to harness the resources available in their pre-existing relationships.

Conclusions

The findings described in this thesis provide solid support for the importance of relationship affirmation, a construct not previously applied to adolescents, in enhancing pupils' motivation to pursue their ideal selves, and important related goals. They also suggest that the link between self-esteem and achievement may at least in part occur via social processes, and in particular by increasing the formation and maintenance of

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relationships with others who affirm individuals' own ideal self, and believe that they can achieve their goals. These conclusions are preliminary, and will need further research to clarify the exact processes involved, but they add an encouraging perspective to the existent literature on adolescent motivation, and form the basis of a model which could have far-reaching implications for a greater emphasis on the social support systems necessary for adolescents to flourish and move towards their ideal selves.

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Appendix A. Questionnaire Measures (all studies)

ID and Demographics

So that the information you give us can remain completely anonymous, we need you to create a unique ID code rather than giving us your name. In the space below, please enter the initial of your first- and last-names in CAPITAL LETTERS, followed by the day, month, and year of your birth. For example, if your name is John Smith and you were born on the 5th of February 1994, you would enter JS050294.

ID code: _____

Your gender (please tick one):

☐ Female   ☐ Male

Your age: _____

Your ethnicity:

☐ White   ☐ Asian / Asian British   ☐ Black / Black British

☐ Mixed   ☐ Other : _____

In which countries did your parents or primary caregivers grow up (please fill in for each, or one if single parent)?

Mother / caregiver:_____

Father / caregiver:
_____

What jobs do your parents or primary caregivers have (please fill in for each, or one if single parent)?

Mother / caregiver:_____

Father / caregiver:
_____

What is the highest level of education that either of your parents or caregivers have achieved? (Please tick one).

☐ Did not finish school ☐ Finished school, and achieved GCSEs or equivalent.

☐ A-levels ☐ University degree

☐ Postgraduate degree (e.g., Masters, PhD)

What is your home post code? _____

If you think about how **wealthy** your family is, how where would you rank them on the

following scale?

Below average Average Above Average

I-------------------------------------- I -- I

Contingencies of Self-Worth

How do you feel about yourself?

Please respond to each of the following statements by writing your answer using the scale from "1 = Strongly Disagree" to "7 = Strongly Agree," as shown below. If you haven't experienced the situation described in a particular statement, please answer how you think you would feel if that situation occurred. There are no right or wrong answers.

Response Scale:

1	2	3	4	5	6	7

Do Not Agree
At All

Agree
Somewhat

Agree
Completely

_____ 1)   When I think I look attractive, I feel good about myself.

_____ 2)   I feel worthwhile when I perform better than others on a task or skill.

_____ 3)   My self-esteem is unrelated to how I feel about the way my body looks.

_____ 4)   I don't care if other people have a negative opinion about me.

_____ 5)   I can't respect myself if others don't respect me.

_____ 6)   Knowing that I am better than others on a task raises my self-esteem.

_____ 7)   My opinion about myself isn't tied to how well I do in school.

_____ 8)   Doing better than others gives me a sense of self-respect.

_____ 9)   My sense of self-worth suffers whenever I think I don't look good.

_____ 10) I feel better about myself when I know I'm doing well academically.

_____ 11) What others think of me has no effect on what I think about myself.

_____ 12) My self-worth is affected by how well I do when I am competing with others.

_____ 13) My self-worth is influenced by how well I do on competitive tasks.

_____ 14) I feel bad about myself whenever my academic performance is lacking.

_____ 15) My self-esteem depends on the opinions others hold of me.

Self-Esteem

<u>How I See Myself</u>

Please respond to each of the following statements by writing your answer using the scale from "1 = Strongly Disagree" to "7 = Strongly Agree," as shown below.

Response Scale:

1	2	3	4	5	6	7

Do Not Agree   Agree   Agree
At All   Somewhat   Completely

_____ 1)   I feel that I am a person of worth, or at least on an equal plane with others.

_____ 2)   I feel that I have a number of good qualities.

_____ 3)   All in all, I'm inclined to feel that I am a failure.

_____ 4)   I am able to do things as well as most other people.

_____ 5)   I feel I do not have much to be proud of.

_____ 6)   I take a positive attitude toward myself.

_____ 7)   On the whole, I am satisfied with myself.

_____ 8)   I certainly feel useless at times.

_____ 9)   I wish I could have more respect for myself.

_____ 10) At times, I think I am no good at all.

Ideal Self and Related Goal Pursuit (Ideal Goals Effort and Ideal Goals Pursuit)

<u>My Ideal Self</u>

In the previous sections, you thought about what you want and expect to be next year. Please now also think about your <u>ideal self</u> – who you would be if you accomplished all your goals and aspirations. Your ideal self may revolve around professional aspirations, personal traits, relationship goals, or a combination of these. Try to imagine your ideal self, and what accomplishments / goals you would need to achieve to move closer towards this ideal. Please use the space below to describe some of the goals you would need to achieve in order to move closer to your ideal (e.g. do well academically, be more socially active, take better care of my physical health, etc.).

_____

_____

_____

_____

_____

Please use the following scale to indicate the extent to which you agree with each of the following statements regarding your pursuit of **goals** related to your **ideal self**.

Response Scale:

1	2	3	4	5	6	7
Do Not Agree At All			Agree Somewhat			Agree Completely

_____ 1)   It is likely that I will achieve these goals in the next couple of years.

_____ 2)   I think a lot about these most important goals.

_____ 3)   I am willing to put in a great deal of time and effort into pursuing these goals.

_____ 4)   I find myself procrastinating a lot when it comes to pursuing these important goals.

_____ 5)   I have the ability and the skills that are needed to accomplish these important goals.

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_____ 6) I pursue these important goals for me – not because other people expect me to.

_____ 7) I fully understand the steps that are involved in achieving these important goals.

_____ 8) I feel that it is my duty and obligation to pursue these goals.

_____ 9) It's completely up to me whether these most important goals are fulfilled or not.

_____ 10) I feel very optimistic that I'll be able to achieve these goals.

_____ 11) I actively seek out advice on how I can best achieve these goals.

Ideal Self Proximity

Please indicate a number from 1 to 9 the distance between your actual self and your ideal self, with 1 being furthest from your ideal and 9 being closest to your ideal.
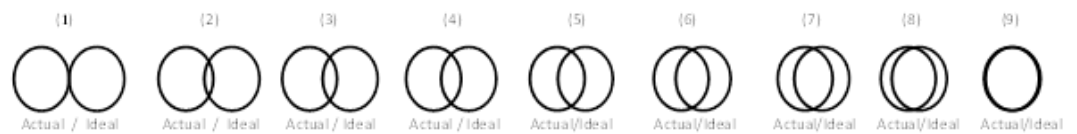
Relationship Affirmation

<u>My Relationships</u>

In the previous sections, you thought about your <u>ideal self</u> – who you would be if you accomplished all your goals and aspirations. Try to think of people in your life who really *believe* that you can achieve these things, and help you move towards this <u>ideal self</u>.

Please use the following scale to indicate the extent to which you agree with each of the statements below concerning the people you were thinking about in the previous question.

1	2	3	4	5	6	7
Do Not Agree At All			Agree Somewhat			Agree Completely

I have people in my life who…

_____ 1) see me as the person I ideally would like to be.

_____ 2) treat me in a way that is close to the person I ideally would like to be.

_____ 3) behave toward me as if I already possess the characteristics of my ideal self.

_____ 4) think that I have what it takes to become the person I ideally would like to be.

_____ 5) say and do things that help me move closer to my most important goals.

_____ 6) believe in my potential to achieve my important goals.

_____ 7) complain about or criticize how I'm pursuing my important goals.

_____ 8) show me that they have a lot of understanding for my most important goals.

_____ 9) show me that they respect my pursuit of these important goals.

_____ 10) show me that they care about me and my goal pursuits.

_____ 11) try to control or pressure me to pursue these important goals in a certain way.

_____ 12) reliably assist my attempts to accomplish these important goals when I ask them to do so.

_____ 13) push me to pursue different goals that I don't wish to.

_____ 14) show me that they do not feel enthusiastic about these important goals.

_____ 15) are very responsive to me and my goal pursuits.

Life Satisfaction

<u>My Life at the Moment</u>

Please read each of the following items carefully, thinking about how it relates to your life, and then indicate how true it is for you. Use the following scale to respond:

1	2	3	4	5	6	7

Do Not Agree   Agree   Agree
At All   Somewhat   Completely

____   1)   In most ways my life is close to ideal.

____   2)   The conditions of my life are excellent.

____   3)   I am satisfied with my life.

____   5)   So far I have got the important things I want in life.

____   5)   If I could live my life over, I would change almost nothing.

Previous exams: Exertion

Please think about the exams that you most recently completed, choose a number from the scale below to indicate how true each of the statements is for you.

Response Scale:

1	2	3	4	5	6	7
Do Not Agree At All			Agree Somewhat			Agree Completely

_____ 1)   I devoted a lot of time and effort into studying for my exams.

_____ 2)   I know I should have studied harder for my exams.

_____ 3)   I found myself procrastinating when it came to studying for my exams.

Academic goal effort

Please now think about the **most important academic goal** that you would like to achieve during the next three years, and write this goal below (e.g. achieve ABB at A-level, learn a great deal, pass my exams, determine a future career path, get into university).

_____

When thinking about this academic goal, choose a number from the scale below to indicate how true each of the statements is for you.

Response Scale:

1	2	3	4	5	6	7

Do Not Agree   Agree   Agree
At All   Somewhat   Completely

_____ 1) This goal is an important part of my ideal self, i.e., the person that I ideally want to become.

_____ 2) I am willing to put in a great deal of time and effort into pursuing this academic goal.

_____ 3) If I had all the money and fame in the world, I would still pursue this goal.

Exam Focus

Please think about the exams / assessments that are coming up, and choose a number from the scale below to indicate how true each of the statements is for you.

Response Scale:

1	2	3	4	5	6	7
Do Not Agree At All			Agree Somewhat			Agree Completely

_____ 1) I intend to devote a lot of time and effort into studying for my exams / assessments.

_____ 2) I intend to often prioritise studying over social and leisure (e.g. video games, sports) activities.

_____ 3) I think I will find myself procrastinating when studying for my exams / assessments.

_____ 4) I intend to often prioritise studying over family activities.

_____ 5) I intend to often prioritise socialising or other leisure activities over studying.

Revision Hours

When revising, how many hours did you spend **studying** per day **outside of scheduled school hours**, on average (please select from the options below)?

☐ 0 – 1 hour ☐ 1 – 2 hours ☐ 2 – 3 hours ☐ 3 – 4 hours ☐ 4 + hours

Revision Comparison

How much do you think you revised / worked, compared to other pupils at your school?

1	2	3	4	5	6	7
Much Less Than Average			Average			Much More Than Average

UCAS points

In your most recent exams / assessments, what AS-level or equivalent grades did you receive?

Subject: _____ Grade: _____

Subject: _____ Grade: _____

Subject: _____ Grade: _____

Subject: _____ Grade: _____

Subject: _____ Grade: _____

Subject: _____ Grade: _____

Subject: _____ Grade: _____

Subject: _____ Grade: _____

Subject: _____ Grade: _____