

Est.
1841

YORK
ST JOHN
UNIVERSITY

Curran, Thomas and Hill, Andrew P.

ORCID: <https://orcid.org/0000-0001-6370-8901> (2017)

Perfectionism is increasing over time: A meta-analysis of birth cohort differences from 1989 to 2016. *Psychological Bulletin*, 145 (4). pp. 410-429.

Downloaded from: <http://ray.yorks.ac.uk/id/eprint/2626/>

The version presented here may differ from the published version or version of record. If you intend to cite from the work you are advised to consult the publisher's version:

<http://dx.doi.org/10.1037/bul0000138>

Research at York St John (RaY) is an institutional repository. It supports the principles of open access by making the research outputs of the University available in digital form. Copyright of the items stored in RaY reside with the authors and/or other copyright owners. Users may access full text items free of charge, and may download a copy for private study or non-commercial research. For further reuse terms, see licence terms governing individual outputs. [Institutional Repository Policy Statement](#)

RaY

Research at the University of York St John

For more information please contact RaY at ray@yorks.ac.uk

1 Perfectionism is increasing over time: A meta-analysis of birth cohort differences from 1989 to
2 2016

3

4

5

Thomas Curran¹ & Andrew P. Hill²

6

University of Bath, UK¹.

7

York St John University, UK²

8

9

10

11 Accepted: 11/11/2017. *Psychological Bulletin*.

12

13

14

15

16

17

18

19

20

21

22

23

Abstract

1
2 From the 1980's onwards, neoliberal governance in the US, Canada, and the UK has
3 emphasized competitive individualism and people have seemingly responded, in kind, by
4 agitating to perfect themselves and their lifestyles. In this study, we examine whether cultural
5 changes have coincided with an increase in multidimensional perfectionism in college students
6 over the last 27 years. Our analyses are based on 164 samples and 41,641 American, Canadian,
7 and British college students, who completed the Multidimensional Perfectionism Scale (Hewitt
8 & Flett, 1991) between 1989 and 2016 (70.92% female, Mage = 20.66). Cross-temporal meta-
9 analysis revealed that levels of self-oriented perfectionism, socially prescribed perfectionism,
10 and other-oriented perfectionism have linearly increased. These trends remained when
11 controlling for gender and between-country differences in perfectionism scores. Overall, in order
12 of magnitude of the observed increase, our findings indicate that recent generations of young
13 people perceive that others are more demanding of them, are more demanding of others, and are
14 more demanding of themselves.

Public significance statement

15
16
17 Three decades of neoliberal governance has compelled young people to compete against
18 each other within increasingly demanding social and economic parameters. Perhaps to cope, this
19 study shows that more recent generations of young people are reporting higher levels of
20 perfectionism – a personality trait encapsulating unrealistic standards and harsh self-criticism. As
21 a vulnerability to psychopathology, we advance the idea that one consequence of rising
22 perfectionism may be recent epidemics of serious mental illness.

23

1 Across the industrialized world young people now face far tougher social and economic
2 conditions than their parents (Ipsos MORI, 2014). From the late 1970s onwards, the US, Canada,
3 and the UK have seen interventionist governance committed to the goals of full employment and
4 social equity replaced by laissez-faire governance committed to the advancement of market-
5 based competition and reward (Piketty, 2014). In addition to changing the behavior of social and
6 civic institutions, the continuation of these policies has placed a heavier burden on recent
7 generations of young people to strive against one another under the auspices of meritocracy and
8 under the watchful eye of increasingly demanding parents (Twenge, 2014; Collishaw, Gardner,
9 Maughan, Scott, & Pickles, 2012; Verhaeghe, 2014). In this study, we are interested in the
10 possibility that these cultural changes have coincided with changes in the personalities of young
11 people. Specifically, we examine whether levels of perfectionism – an achievement and
12 relational personality trait – have increased over the past three decades among American,
13 Canadian, and British college students.

14 **Multidimensional perfectionism**

15 Perfectionism is broadly defined as a combination of excessively high personal standards
16 and overly critical self-evaluations (Frost, Marten, Lahart, & Rosenblate, 1990). Perfectionism is
17 multidimensional and has been examined using different models. Researchers have used both
18 individual models and their constituent subdimensions (e.g., Frost et al., 1990; Hewitt & Flett,
19 1991; Slaney, Rice, Mobley, Trippi, & Ashby, 2001), as well as combinations of multiple models
20 to study perfectionism (e.g., Frost, Heimberg, Holt, Mattia, & Neubaur, 1993; Mackinnon &
21 Sherry, 2012; Rice, Ashby, & Slaney, 1998). Studies adopting these approaches have illustrated
22 the benefits of a multidimensional perspective. For example, we now have a better understanding

1 of the many guises perfectionism can take and the varied outcomes associated with the different
2 perfectionism dimensions (Stoeber & Otto, 2006).

3 One well-studied model of multidimensional perfectionism is that proposed by Hewitt
4 and Flett (1991). In their model, perfectionism is understood in terms of the direction of
5 perfectionistic beliefs and behaviors. When directed towards the self, individuals attach irrational
6 importance to being perfect, hold unrealistic expectations of themselves, and are punitive in their
7 self-evaluations (self-oriented perfectionism). When perceived to come from others, individuals
8 believe their social context is excessively demanding, that others judge them harshly, and that
9 they must display perfection to secure approval (socially prescribed perfectionism). When
10 perfectionistic expectations are directed toward others, individuals impose unrealistic standards
11 on those around them and evaluate others critically (other-oriented perfectionism). This model
12 was developed at a time when approaches to perfectionism were unidimensional and focused on
13 only intrapersonal conceptualizations of perfectionism (i.e., self-oriented perfectionism). In this
14 regard, the model offered, and continues to offer, an important advancement in that both
15 intrapersonal and interpersonal expressions of perfectionism can be studied (i.e., socially
16 prescribed and other-oriented perfectionism).

17 To measure self-oriented, socially prescribed, and other-oriented perfectionism, Hewitt
18 and Flett (1991) developed the Multidimensional Perfectionism Scale. The validity and
19 reliability of this instrument have been established across several decades. The psychometric
20 properties, including normative data for community and clinical populations, are provided by
21 Hewitt and Flett (1991, 2004) along with detailed case studies. The Multidimensional
22 Perfectionism Scale has been used in a wide range of settings in both clinical and nonclinical
23 samples. It has also been used extensively in research in college students. Perhaps the main

1 strength of the instrument has been the manner by which the nomological network of the
2 individual dimensions has been established through extensive empirical work (see Hewitt, Flett,
3 & Mikail, 2017 for a recent review). This work has provided insight into the unique correlates,
4 consequences, and processes associated with each dimension of perfectionism.

5 Studies show self-oriented perfectionism to be the most complex of the three dimensions
6 of perfectionism. As self-oriented perfectionism has a salient motivational component (striving
7 to attain perfection and avoid failure), it is often associated with seemingly adaptive
8 achievement-related behaviors (Hewitt & Flett, 1991). However, this achievement behavior
9 belies vulnerability to motivational and psychological difficulties that come from, among other
10 things, tying one's self-worth to achievement and being unable to derive a lasting sense of
11 satisfaction from one's accomplishments. Research among college students and young people,
12 for example, has found self-oriented perfectionism to be positively associated with clinical
13 depression, anorexia nervosa, and early death (e.g., Enns & Cox, 2005; Fry & Debats, 2009;
14 Hewitt & Flett, 1991, 1993). It is also associated with greater physiological reactivity (e.g.,
15 elevated blood pressure) and ill-being (e.g., negative affect) to life stress and failure (e.g., Besser,
16 Flett, & Hewitt, 2004; Besser, Flett, Hewitt, & Guez, 2008; Hill, Hall, Duda, & Appleton, 2011).
17 The ill-effects of self-oriented perfectionism are substantiated in recent comprehensive reviews,
18 which found that this dimension of perfectionism positively correlates with suicide ideation and
19 predicts increases in depression over time – an effect typically lost in cross-sectional studies
20 (Smith, et al., 2016, in press).

21 Socially prescribed perfectionism is the most debilitating of the three dimensions of
22 perfectionism. This is because the perceived expectations of others are experienced as excessive,
23 uncontrollable, and unfair, making failure experiences and negative emotional states common

1 (Hewitt & Flett, 1991). The debilitating nature of socially prescribed perfectionism is evident in
2 research on college students, which has found this dimension of perfectionism to be positively
3 associated with major psychopathology (e.g., anxiety, depressive symptoms, and suicide
4 ideation; Martin, Flett, Hewitt, Krames, & Szanto, 1996; Hewitt, Flett, & Weber, 1994; Sherry,
5 Hewitt, Flett, & Harvey, 2003). These relationships have been replicated in longitudinal and
6 experimental studies (e.g., Flett, Endler, Tassone, & Hewitt, 1994; Hewitt, Flett, & Ediger, 1996;
7 O'Connor, O'Connor, O'Connor, Smallwood, & Miles, 2004). Like self-oriented perfectionism,
8 the reviews of Smith et al. (2016, in press) showed that socially prescribed perfectionism
9 predicted increases in depressive symptoms and suicide ideation over time, but to a much greater
10 degree.

11 In comparison to self-oriented perfectionism and socially prescribed perfectionism, other-
12 oriented perfectionism has received less attention from researchers. Other-oriented perfectionism
13 is a distinct dimension of perfectionism because it manifests in interpersonal behaviors. As
14 others fall short of the other-oriented perfectionist's expectations, they are blamed and criticized
15 and generally treated with hostility and disdain (Hewitt et al., 2017). Early studies among college
16 students linked other-oriented perfectionism with socially antagonistic characteristics such as
17 higher vindictiveness, hostility, and the tendency blame others, in addition to lower altruism,
18 compliance, and trust (e.g., Hewitt & Flett, 1991; Hill, McIntire, & Bacharach, 1997; Hill, Zrull,
19 & Turlington, 1997). In intimate relationships, too, other-oriented perfectionism is problematic
20 because it is linked with outcomes such as greater conflict and lower sexual satisfaction (Habke,
21 Hewitt, & Flett, 1999; Haring, Hewitt, & Flett, 2003). Recent studies substantiate these early
22 findings and, in addition, show that other-oriented perfectionism is strongly related to a

1 narcissistic desire for others' admiration (e.g., Nealis, Sherry, Sherry, Stewart, & Macneil, 2015;
2 Nealis, Sherry, Lee-Baggley, Stewart, & Macneil, 2016; Stoeber, 2014).

3 **Cultural change and perfectionism development**

4 As is evident from our brief review, the correlates and consequences of perfectionism
5 have been well studied. The development of perfectionism, by contrast, has received less
6 empirical attention. Moreover, the research that does exist has focused largely on how the
7 immediate family environment, and parental practices in particular, shape the development of
8 perfectionism at an individual level (see Flett, Hewitt, Oliver, & Macdonald, 2002; Hewitt et al.,
9 2017). To our knowledge, no studies have examined whether wider cultural changes also
10 influence levels of perfectionism at the birth cohort level. The current study is the first to do so.

11 The theoretical basis for the possibility that cultural changes have influenced levels of
12 perfectionism is provided by Markus and Kitayama's (2010) mutual constitution model.
13 According to Markus and Kitayama, dominant cultural values of society at any one point in time
14 are reflected in the norms of its social and civic institutions (i.e., familial, academic, religious,
15 economic, and political) and these institutions shape individual attitudes, values, beliefs, and
16 personalities. Hence, just as culture produces individual differences between countries, the
17 culture of different time periods can produce generational differences in personality. We are also
18 influenced in our thinking on this matter by the important work of Twenge and colleagues who
19 have provided cross-temporal research showing that various personality characteristics have
20 changed over time among young people (e.g., neuroticism, narcissism, and extraversion; see
21 Twenge, 2014). We take a similar approach here, focusing on cultural change and large-scale
22 data that we consider potentially important and revealing in the development of perfectionism at

1 a cohort level. Ultimately, we consider perfectionism “amounts to a cultural phenomenon”
2 (Burns, 1980, p. 34) and can, therefore, be studied as such.

3 Theory on the development of perfectionism is also at the forefront of our minds. Hewitt
4 et al. (2017) have recently proposed a model of perfectionism development emphasizing the
5 relational context and the social connections that shape the formative experiences of children and
6 adolescents. With the classic writing on the origins of perfectionism in mind (e.g., Hollender,
7 1965; Hamachek, 1978; Pacht, 1984), they view the development of perfectionism to be
8 underpinned by asynchrony, or mismatch, between attachment needs – of belonging and self-
9 esteem – and responses to those needs. Hewitt et al primarily describe this process in the context
10 of the child-parent relationship but also stress the importance of relations more widely such as
11 siblings, peers, and romantic partners. In their view, the results of asynchrony are distorted
12 perceptions of significant others as judgmental and critical, a fragile and fragmented sense of
13 self, and relational and self-schemas characterized by feelings of unworthiness and shame. In this
14 model, the need to be perfect, or appear perfect, is a strategy that is adopted to compensate for,
15 repair, and protect a damaged sense of self-worth through obtaining the approval of others. In its
16 broadest sense, then, perfectionism can be understood to develop through the messages that
17 young people internalize from their immediate social environments, the resulting view of
18 themselves, especially how they construe self-worth and how it is established, and their sense of
19 self in relation to others.

20 In tandem with the immediate social environment, we believe that perfectionism
21 development is influenced by broader cultural norms at the societal level. Hence, with the work
22 of the Hewitt et al. in mind, here we consider what cultural factors may account for possible
23 changes in perfectionism. To this end, we identify three interrelated cultural changes that have

1 been influential in explaining recent shifts in young people's sense of self and identity, and
2 which closely match processes important to perfectionism development. These changes are; (i)
3 the emergence of neoliberalism and competitive individualism, (ii) the rise of the doctrine of
4 meritocracy, and (iii) increasingly anxious and controlling parental practices. In what follows,
5 we describe each of these cultural changes and outline how they relate to perfectionism.

6 **Emergence of neoliberalism and perfectionism**

7 Cultural values in the US, Canada, and the UK have undergone a remarkable change in
8 recent decades. From the late 1970s onwards, several events have brought about significant
9 social and economic transformation. The post-war New Deal (US & Canada), Consensus (UK),
10 and the emergence of neoliberalism in the industrialized world has reshaped the cultural,
11 political, and economic landscape (Blyth, 2002). Neoliberalism is a model of social studies and
12 economics borne of revived (neo) 19th-century capitalist (liberal) principles. It elevates the
13 market, and market-based systems of interpersonal evaluation, to the level of state-endorsed
14 norms (Davies, 2014). Accordingly, market distortions fashioned by state interventionism (e.g.,
15 collective bargaining and public ownership) are minimized under neoliberal governance,
16 replaced instead by efforts to foster unconstrained competition between self-interested
17 individuals (e.g., deregulation and privatization).

18 As young people internalize the cultural frames of neoliberalism, changes in how they
19 construe a sense of self and identity are evident in various ways. Perhaps most notably,
20 neoliberalism has seen the dominance of collectivism progressively give way to a wave of
21 competitive individualism. For example, more recent generations of college students in the US
22 report higher levels of narcissism, extraversion, and self-confidence than previous generations
23 (e.g., Twenge, 2001a; Twenge, Campbell, & Gentile, 2012; Twenge, Konrath, Foster, Campbell,

1 & Bushman, 2008). At the same time, communal traits have waned. This is evident in that more
2 recent generations of college students show less empathy toward others and are more likely to
3 blame victims when things go wrong (e.g., Konrath, O'Brien, & Hsing, 2011; Malahy,
4 Rubinlicht, & Kaiser, 2009; Twenge et al., 2012). Young people also appear now to be more
5 self-interested and spend less time doing group activities for fun and more time doing individual
6 activities for instrumental value or sense of personal achievement (see Twenge, 2014).

7 In the same fashion, behaviors associated with competition and the attainment of social
8 standing have risen (Kasser, Ryan, Couchman, & Sheldon, 2004). In recent years, data suggests
9 that individuals across the industrialized world have become preoccupied with upward social
10 comparison, experience considerable status anxiety, and adopt materialism as a means of
11 perfecting their lives in relation to others (e.g., De Botton, 2004; Marmot, 2004; Scott, Martin, &
12 Schouten, 2014). The increase in materialism is particularly evident in the shifting values and
13 behaviors of young people. Eighty-one percent of Americans born in the 1980s report that
14 getting materially rich is among their most important life goals, a figure that is almost 20 percent
15 higher than those born in the 1960s and 1970s (Pew Research Center, 2007). More recent
16 generations of young people also borrow more heavily than did older generations at the same
17 period of lifespan and spend, on average, a far greater proportion of their income on status
18 possessions and image goods than did their parents (e.g., luxury vehicles and designer labels;
19 Bricker, Ramcharan, & Krimmel, 2014; Jiang & Dunn, 2013; Parment, 2013).

20 Not only more dissatisfied with what they have, young people are also seemingly more
21 dissatisfied with who they are. Platforms such as Facebook, Instagram, and Snapchat have
22 become ubiquitous, occupying 2 out of every 5 minutes spent online (GlobalWebIndex, 2016).
23 The popularity of these platforms can, in part, be explained by how they allow users to curate a

1 perfect public image (Mendelson & Papacharissi, 2011). Yet rather than alleviate presentational
2 and interpersonal anxieties, studies indicate that exposure to others' perfect self-representations
3 within social media can intensify one's own body image concerns and sense of social alienation
4 (Grabe, Ward, & Hyde, 2008; Paik & Sanchagrin, 2013). Other data suggests that young people
5 are struggling to cope with a visual culture which emphasizes unrealistic body ideals. The most
6 recent cohort data from the US and the UK show that incidence of body dysmorphia and eating
7 disorders has risen by approximately 30 percent among late adolescent girls since the advent of
8 social media (e.g., PwC, 2015; Smink, van Hoeken, & Hoek, 2012; Thompson & Durrani, 2007).
9 In the same countries, increasing numbers of young people are turning to plastic surgery and its
10 promise of bodily perfection (e.g., British Association of Aesthetic Plastic Surgeons, 2015;
11 American Society for Plastic Surgeons, 2016; Thomas, 2015).

12 With general social malaise as a backdrop, neoliberalism has succeeded in shifting
13 cultural values so to now emphasize competitiveness, individualism, and irrational ideals of the
14 perfectible self (Verhaeghe, 2014). These ideals are systemic within contemporary language
15 patterns, the media, and social and civic institutions, and are evident in the rise of competitive
16 and individualistic traits, materialistic behavior, and presentational anxieties among recent
17 generations of young people. Revisiting Hewitt et al.'s (2017) model, it is interesting to consider
18 how young people are coming to construct a sense of self and identity in this kind of culture. The
19 notion of a 'flawed' and 'disordered' self appears especially relevant (Banai, Mikulincer, &
20 Shaver, 2005). That is, a sense of self overwhelmed by pathological worry and a fear of negative
21 social evaluation, characterized by a focus on deficiencies, and sensitive to criticism and failure.
22 This sense of self is a close match to the sense of self constructed by perfectionists and is
23 reflected in many of the recent changes to self, identity, and behavior observed in young people.

1 Young people appear to have internalized irrational social ideals of the perfectible self that,
2 while unrealistic, are to them eminently desirable and obtainable. Broadly speaking, then,
3 increasing levels of perfectionism might be considered symptomatic of the way in which young
4 people are coping – to feel safe, connected, and of worth – in neoliberalism’s new culture of
5 competitive individualism.

6 **The rise of meritocracy and perfectionism**

7 The caveat emptor of neoliberalism lies in its meritocratic starting point. The perfect life
8 and lifestyle – encapsulated by achievement, wealth, and social status – are available to anyone
9 *provided you try hard enough* (Frank, 2016). According to neoliberal meritocracy, those who
10 reach the top schools and colleges, or gain entry to occupations offering the most profitable
11 employment, receive their due rewards of wealth and social status. For those who do not reach
12 such educational and professional heights, the doctrine of meritocracy dictates they are less
13 deserving and their poor achievement reflects their inadequate personal abilities (e.g., skills,
14 intelligence, and efforts; Hayes, 2012). The doctrine of neoliberal meritocracy therefore falsely
15 and insidiously connects the principles of educational and professional achievement, status, and
16 wealth with innate personal value (e.g., Clark, 1965; Ehrenreich, 1989; Gruiner, 2015). In turn,
17 because individuals cannot avoid being sorted, sifted, and ranked by schools, universities, and
18 the workplace, neoliberal meritocracy places a strong need to strive, perform, and achieve at the
19 center of modern life.

20 Most acutely, the merging of academic and economic meritocracies has redefined the
21 purpose of education. Whereas education has historically sought to provide young people with a
22 broader repertoire of skills and knowledge, neoliberal meritocracy stresses that skills and
23 knowledge are worthless unless they confer economic value (Verhaeghe, 2014). This places

1 considerable pressure on young people to strive, compete, and meet increasingly higher
2 expectations in school and college – less they wish to damage their future market price. The
3 effects of merging academic and economic meritocracies are reflected in the escalating
4 educational expectations of young people. In the US, where cohort data is available,
5 approximately half of high school seniors in 1976 expected to attain at least some college degree,
6 by 2008 that figure had risen to over 80 percent (Jacob & Wilder, 2010). Yet actual degree
7 attainment has failed to keep pace with rising expectations. The gap between the percentage of
8 high school seniors expecting to obtain a college degree and the percent of young people with a
9 college degree doubled between 1976 and 2000 and has continued to rise (Johnson & Reynolds,
10 2013; Reynolds, Stewart, MacDonald, & Sischo, 2006). Together, this research suggests that the
11 expectations of many young people are increasingly unrealistic (Baird, Burge, & Reynolds,
12 2008).

13 As young people's expectations have increased, so have the educational demands placed
14 on them. Intense competition for elite college admission has meant that, relative to previous
15 generations, current high school students in the US, Canada, and the UK are subjected to more
16 numerous and stringent standardized tests (Guinier, 2015). At the same time, although the
17 number of students going to college has increased, the wage premium associated with a college
18 degree has stagnated over the last 20 years (Moretti, 2013). One reason for this stagnation is a
19 saturation of the graduate job market and underemployment among graduates in developed
20 countries (i.e., holding jobs that do not require a degree), which is currently much higher among
21 recent generations of college graduates than it was for older generations at the same period of life
22 (Abel, Dietz, & Su, 2014). Instead, research in the US and the UK shows that the college
23 premium is now almost entirely attributable to the income of those with postgraduate degrees

1 (Brynin, 2013; Shierholz & Mishel, 2013). Just 10 percent of the US workforce, 7 percent of the
2 Canadian workforce, and 11 percent of the UK workforce have postgraduate qualifications
3 (Lindley & Machin, 2013; Statistics Canada, 2012). Young people, therefore, must complete a
4 college degree, and now must also obtain a postgraduate qualification, if they are to demonstrate
5 their economic merit.

6 Over time, then, meritocracy raises the bar of society's expectations such that they
7 become unattainable to the majority – especially for young people, and especially in terms of
8 educational achievement. Perceptions of unrealistic achievement standards are common in
9 models that seek to explain the development of perfectionism. Although written some time ago,
10 Hamachek (1978) stated on the link between the need to achieve and perfectionism that
11 “[perfectionists] may over-value performance and undervalue the self. He learns only through
12 performance that he has a self” (p. 29). The notion that perfectionists come to overvalue
13 accomplishment is also echoed and expanded upon in the recent writing of Hewitt et al (2017).
14 Here, perfectionism is conceived as a misguided attempt to procure others' approval and repair
15 feelings of unworthiness and shame through displays of high achievement. Hewitt et al.'s
16 description of perfectionism development is allied to the machinations of meritocratic culture in
17 that striving for high achievement standards and the attainment of perfection are actively
18 encouraged and rewarded. Young people are taught that the principles of meritocracy are good,
19 fair, and just. In response, they are compelled to demonstrate their merit, set increasingly higher
20 and unrealistic goals, and come to define themselves in the strict and narrow terms of personal
21 achievement.

22 **Altered parental practices and perfectionism**

1 As we have described, neoliberalism and its doctrine of meritocracy have combined to
2 shape a culture in which everybody is expected to perfect themselves and their lifestyles by
3 striving to meet unrealistic achievement standards. For parents, this new culture confers an
4 additional burden. On top of their own duty to succeed, they are also responsible for the
5 successes and failures of their children (Verhaeghe, 2014). Should a young person be unable to
6 navigate an increasingly competitive social milieu, then it is not just their failure, it is also the
7 parents' failure too. This internalized concern for one's child's success has been labelled child-
8 contingent self-esteem (Soenens, Wuyts, Vansteenkiste, Mageau, & Brenning, 2015) and is
9 evident in the rise of parental expectations for their children's achievements which, across the
10 industrialized world, are at extremes that psychologists have noted are cause for concern (Sevilla
11 & Borra, 2015).

12 Pressure to raise successful children in a culture that emphasizes monetary wealth and
13 social standing has several consequences for the behavior of parents. Foremost, there is evidence
14 that recent generations of parents are responding to pressure by spending far more time with their
15 children on academic activities. This trend sits alongside a reduction in the amount of time
16 parents report spending with their children doing other activities such as leisure or hobbies. Since
17 the early 1990s, mothers in the US have reallocated over nine hours per-week from leisure time
18 to childcare, including two additional hours per-week afforded specifically to education (Ramey
19 & Ramey, 2010). Subsequent analyses show that this reallocation is correlated with a period in
20 which competition to get into college has increased – a trend economists Ramey and Ramey
21 (2010) have termed the 'rug rat race.'

22 Beyond increasing time dedicated to childcare, pressure on parents to secure a successful
23 future for their children has more substantive effects on parenting itself. Theorists have

1 suggested that pressures from above, such as those associated with competition and the
2 attainment of unrealistic expectations, are related to more anxious and overly controlling parental
3 styles (see Soenens & Vansteenkiste, 2010). This is because parents act as social conduits,
4 passing their own achievement anxieties onto their children by way of excessive involvement in
5 their child's routines, activities, or emotions (Belsky, 1984). Available data from the US supports
6 this idea. Between 1986 and 2006, youth reports of parenting practices associated with
7 monitoring and surveillance, such as telling parents where they are and what they will be doing,
8 have increased approximately two-fold (Collishaw et al., 2012). Meanwhile, young people's
9 reports of autonomy supportive parent behaviors, such as showing an interest in children's ideas,
10 have waned considerably (Collishaw et al., 2012).

11 Parental behavior is at the center of Hewitt et al.'s (2017) model of perfectionism
12 development. This includes the availability and responsiveness of parents to attachment needs
13 (asynchrony) that are thought to be fundamental to the initial development of perfectionistic
14 tendencies, but also specific pathways to perfectionism through patterns of parental behavior. In
15 one such pathway, Flett et al (2002) describe anxious rearing behaviors, akin to those on the rise,
16 whereby parents project worry and concern regarding their child and their child responds by
17 becoming hypersensitive and averse to mistakes. Flett and colleagues (2002) also describe
18 controlling parental behaviors, again, similar to those that appear to be on the rise. Controlling
19 behaviors include a combination of high expectations and high criticism and encourage children
20 to adopt extremely high standards and strive for perfection, so to avoid criticism and gain the
21 approval of their parents. In short, when reflecting on changes in parental practices and the likely
22 influence on perfectionism, increases in both anxious and controlling parenting are likely to help
23 explain why perfectionism may have increased among young people.

1 **The present study**

2 In this study, we ask a basic but important question: is perfectionism rising over time
3 among young people? To address it, we test for generational changes in perfectionism using a
4 cross-temporal meta-analysis of American, Canadian, and British college students' responses to
5 the Multidimensional Perfectionism Scale (Hewitt & Flett, 1991). This analysis tests the
6 weighted (for sample size and measurement uncertainty) correlation of mean perfectionism
7 scores for self-oriented perfectionism, socially prescribed perfectionism, and other-oriented
8 perfectionism with the year of data collection. As college students are approximately the same
9 age, data collected from the Multidimensional Perfectionism Scale at different time points
10 provide a test of birth cohort differences for generational variability. By this means, we can
11 document how levels of perfectionism have changed, at the cohort level, since the late 1980s. In
12 line with the theoretical and empirical evidence provided earlier, we expect that year of data
13 collection would show a positive correlation with self-oriented perfectionism, socially prescribed
14 perfectionism, and other-oriented perfectionism.

15 **Method**

16 **Literature search.** An electronic literature search was conducted using PsycINFO,
17 PsycARTICLES, MEDLINE, Google Scholar, and ProQuest Dissertations & Theses (American
18 & International and the United Kingdom & Ireland). The search terms used were
19 “Multidimensional Perfectionism Scale” AND “college students” OR “university students.” We
20 also conducted a cited title search of the Multidimensional Perfectionism Scale paper in Web of
21 Science (i.e., “Perfectionism in the self and social contexts: conceptualization, assessment, and
22 association with psychopathology.”) The period of each search spanned publications between
23 January 1989 and November 2017. No other restrictions were implemented. This initial literature

1 search yielded 1,768 studies. Once duplicates were removed and abstracts were screened for
2 relevance (e.g., empirical studies of perfectionism), 405 studies remained (15 theses and 390
3 journal articles). Next, we embarked on a full-text review of the retrieved papers to further
4 screen for relevance (e.g., studies that used Frost's Multidimensional Perfectionism Scale; Frost
5 et al., 1990). Following the full-text review, 246 papers remained (9 theses and 237 journal
6 articles).

7 A manual search followed the electronic search. The reference lists of the articles
8 identified in the electronic search were inspected with the intention of identifying additional
9 articles. In addition, authors with 2 or more articles retrieved in the electronic literature search
10 were emailed to inquire about the possession of any unpublished studies/data sets that included
11 the Multidimensional Perfectionism Scale and college students (e.g., conference papers) and to
12 request the year of data collection for their studies. Twenty authors were contacted on this basis
13 and 11 responded to our request within 8 weeks of the initial email (our stated deadline). This
14 resulted in the addition of 5 studies (2 theses and 3 journal articles) and 38 clarifications of data
15 collection year. In total, the electronic and manual literature search yielded 240 studies/data sets
16 for reduction using the inclusion criteria. All literature searches and study screenings were
17 conducted by the first author, who has a Ph.D. in psychology and is a regular contributor to
18 research on perfectionism.

19 **Inclusion criteria.** For inclusion in the analysis, a study or data set had to report the total
20 score (all items added together) or mean score (all items added together divided by number of
21 items) and standard deviation (*SD*) of at least one Multidimensional Perfectionism Scale
22 subscale, and meet the following criteria: (i) participant mean age was within typical
23 undergraduate range (i.e., between 18 and 25 years), (ii) participants were attending a college or

1 university in the US, Canada, or the UK, (iii) participants were not selected based on criteria
2 relating to the Multidimensional Perfectionism Scale (e.g., scoring high or low on an
3 Multidimensional Perfectionism Scale subscale), (iv) if an experimental study, the experimental
4 manipulation did not affect Multidimensional Perfectionism Scale scores (only scores taken
5 before any manipulation were included), and (v) the study included a sample that was not
6 replicated elsewhere (studies/datasets were included only once).

7 The Multidimensional Perfectionism Scale includes 45 items (15 items per subscale) and
8 a 7-point Likert scale response format. Numerous studies reported Multidimensional
9 Perfectionism Scale scores for males and females only. On these occasions, we calculated
10 weighted grand means for the overall sample (i.e., pooled male and female scores). Furthermore,
11 authors typically reported the total score of the subscales for self-oriented perfectionism, socially
12 prescribed perfectionism, and other-oriented perfectionism. For ease of interpretation, when this
13 was the case, we divided these sums and *SDs* by 15 (i.e., the number of items in the
14 Multidimensional Perfectionism Scale subscales) to put the scores back into their item-level
15 units. Ten studies used a validated five-item short version of the Multidimensional Perfectionism
16 Scale subscales (see Cox, Enns, & Clara, 2002). In these cases, we divided the total score and
17 *SDs* by 5 to provide a comparable mean score. Finally, when the Multidimensional Perfectionism
18 Scale was used, but the self-oriented perfectionism, socially prescribed perfectionism, and other-
19 oriented perfectionism total scores or mean score were not reported, we emailed authors with 2
20 or more studies in our analysis to request this information. Fourteen authors were contacted on
21 this basis and 8 responded to our request within 8 weeks of the initial email.

22 To code the year of data collection, we adhered to the following procedure: (i) if the year
23 of data collection was described in the study, we coded it as such, (i) if we retrieved data from

1 authors, we asked them to report when it was collected, and (iii) otherwise, the year of data
2 collection was coded 2 years prior to publication. This is a strategy that is common in similar
3 meta-analyses (Twenge et al., 2010; Twenge et al., 2008). We also coded the percentage of
4 females in each sample and country of data collection as control variables. Data was coded solely
5 by the first author. On November 1st, 2017 we ended our searches and requests for missing
6 information to instigate data reduction and analysis. The implementation of the inclusion criteria
7 resulted in the subsequent coding of 146 studies with 164 datasets, comprising a total of 41,641
8 college students (70.92% female, $M_{\text{age}} = 20.66$), reporting 155 mean scores for self-oriented
9 perfectionism, 158 mean scores for socially prescribed perfectionism and 102 mean scores for
10 other-oriented perfectionism (see Figure 1). These data sources are marked with an asterisk in
11 the references section.

12 **Meta-analytic procedures.** To examine whether sample means for self-oriented
13 perfectionism, socially prescribed perfectionism, and other-oriented perfectionism have changed
14 over time we conducted metaregression analyses using the metafor R package (Viechtbauer,
15 2010). For all analyses, year of data collection was entered as the predictor, and respective scale
16 mean scores were the criterion. To allow for between-sample residual heterogeneity, random
17 effects metaregression models were employed with an additive between-sample variance
18 component (τ^2) derived from restricted maximum likelihood estimation (see Thompson & Sharp,
19 1999). Alongside estimated τ^2 , we calculated I^2 values for each metaregression model to quantify
20 the proportion of observed effect size dispersion due to between-sample heterogeneity.

21 To adjust for the possibility that changes in perfectionism are explained by gender and
22 country, we sequentially added several control variables to our random effects metaregression
23 models. The percentage of females in each sample was included as a continuous variable. We

1 from all analyses (self-oriented perfectionism $k = 1$; socially prescribed perfectionism $k = 1$;
2 other-oriented perfectionism $k = 0$). Descriptive statistics for the screened data are presented in
3 Table 1. In brief, studies reported mean self-oriented perfectionism scores of 4.60 ($SD = 0.20$),
4 mean socially prescribed perfectionism scores of 3.60 ($SD = 0.21$), and mean other-oriented
5 perfectionism scores of 3.85 ($SD = 0.17$).

6 **Primary analysis.** To examine the effect of time on perfectionism dimensions, we
7 conducted several random effects metaregression models for self-oriented perfectionism, socially
8 prescribed perfectionism, and other-oriented perfectionism. The results of these analyses are
9 displayed in Table 2 and Figure 2.

10 **Self-oriented perfectionism.** For self-oriented perfectionism, we first tested a simple
11 random effects metaregression model including year of data collection (time) as a single
12 covariate (Model 1). In this model, time did not explain a significant amount variance in self-
13 oriented perfectionism scores ($R^2 = .02$, $Q_{\text{model}} = 3.13$, $df = 1$, $p > .05$).

14 Next, we entered our two dummy coded country variables alongside time in a multiple
15 random effects metaregression model of self-oriented perfectionism (Model 2). The covariates
16 explained a significant portion of variance in self-oriented perfectionism scores in Model 2 ($R^2 =$
17 $.07$, $Q_{\text{model}} = 12.21$, $df = 3$, $p < .01$). An inspection of the metaregression coefficients revealed
18 that time ($\beta = .17$, $p < .05$) and the USA dummy variable ($\beta = .20$, $p < .05$) significantly
19 predicted self-oriented perfectionism but the UK dummy variable did not ($\beta = -.07$, $p > .05$). The
20 positive sign of the time metaregression coefficient is consistent with the interpretation that more
21 recent generations of college students reported higher scores for self-oriented perfectionism than
22 older generations of college students. Furthermore, alongside significant Bonferroni pairwise

1 comparisons¹, the positive sign of the USA metaregression coefficient indicates that, relative to
 2 Canadian and British college students, self-oriented perfectionism is typically highest among
 3 American college students.

4 We then entered the gender covariate (female %) alongside the country covariates and
 5 time in a multiple random effects metaregression model of self-oriented perfectionism (Model
 6 3). Consistent with Model 2, the covariates explained a significant portion of variance in self-
 7 oriented perfectionism scores in Model 3 ($R^2 = .07$, $Q_{\text{model}} = 12.45$, $df = 4$, $p < .01$). The
 8 significant metaregression coefficients for time ($\beta = .17$, $p < .05$) and the USA dummy variable
 9 ($\beta = .19$, $p < .05$) remained in Model 3 but the UK dummy variable ($\beta = -.07$, $p > .05$) and gender
 10 ($\beta = -.02$, $p > .05$) were not significant predictors of self-oriented perfectionism scores.
 11 Therefore, in this model, no evidence of a relationship was found for self-oriented perfectionism
 12 and the proportion of females in a sample.

13 Finally, we compared a restricted multiple random effects metaregression model of self-
 14 oriented perfectionism scores containing only the control covariates (i.e., USA dummy variable,
 15 UK dummy variable, and gender; $R^2 = .05$, $Q_{\text{model}} = 7.81$, $df = 3$, $p > .05$) to a full multiple
 16 random effects metaregression model containing time and the control covariates (i.e., Model 3).
 17 A significant amount of additional model variance was explained when time was included
 18 alongside the control covariates; $\Delta R^2 = .03$, $F(1, 155) = 4.21$, $p < .05$. Such model improvement
 19 is consistent with the interpretation that time explains variability in self-oriented perfectionism
 20 scores beyond the influence of country and gender.

21 **Socially prescribed perfectionism.** We used the same iterative model building process
 22 to examine the influence of time on socially prescribed perfectionism. The first simple random

¹ USA versus Canada $M_{\text{difference}} = .09$ (95% BCa CI = .02, .15); USA versus UK $M_{\text{difference}} = .11$ (95% BCa CI = .01, .22); UK versus Canada $M_{\text{difference}} = -.02$ (95% BCa CI = -.13, .08).

1 effects metaregression model (Model 1) indicated that time explained a significant amount of
2 variance in socially prescribed perfectionism scores ($R^2 = .21$, $Q_{\text{model}} = 40.87$, $df = 1$, $p < .01$).
3 Inspection of the metaregression coefficient revealed that time positively predicted socially
4 prescribed perfectionism scores ($\beta = .45$, $p < .01$). The positive sign of the metaregression
5 coefficient is consistent with the interpretation that more recent generations of college students
6 reported higher scores for socially prescribed perfectionism than older generations of college
7 students.

8 Next, we added the country covariates alongside time in a multiple random effects
9 metaregression model of socially prescribed perfectionism (Model 2). A significant portion of
10 model variance was explained by the covariates in this model ($R^2 = .26$, $Q_{\text{model}} = 53.22$, $df = 3$, p
11 $< .01$). The significant metaregression coefficient of socially prescribed perfectionism scores on
12 time remained in this model ($\beta = .49$, $p < .01$). In addition, the USA dummy variable predicted
13 socially prescribed perfectionism scores ($\beta = -.23$, $p < .01$) but the UK dummy variable did not
14 ($\beta = -.12$, $p > .05$). Alongside significant Bonferroni pairwise comparisons², the negative sign of
15 the USA metaregression coefficient is consistent with the interpretation that socially prescribed
16 perfectionism is typically highest among Canadian and British college students relative to
17 American college students.

18 We then entered our gender covariate to the country covariates and time in a third
19 multiple random effects metaregression model of socially prescribed perfectionism (Model 3).
20 The covariates explained a significant portion of variance in socially prescribed perfectionism
21 scores in Model 3 ($R^2 = .26$, $Q_{\text{model}} = 54.12$, $df = 4$, $p < .01$). The significant metaregression
22 coefficients for time ($\beta = .50$, $p < .01$) and the USA dummy variable ($\beta = -.23$, $p < .01$) remained

² USA versus Canada $M_{\text{difference}} = -.08$ (95% BCa CI = $-.15, -.01$); USA versus UK $M_{\text{difference}} = -.10$ (95% BCa CI = $-.19, -.02$); UK versus Canada $M_{\text{difference}} = .02$ (95% BCa CI = $-.07, .11$).

1 in Model 3 but the UK dummy variable ($\beta = -.11, p > .05$) and gender ($\beta = -.07, p > .05$) were not
2 significant predictors of socially prescribed perfectionism scores. Therefore, in this model, no
3 evidence of a relationship was found for socially prescribed perfectionism and the proportion of
4 females in a sample.

5 Lastly, we compared a restricted multiple random effects metaregression model of
6 socially prescribed perfectionism scores containing only the control covariates (i.e., USA dummy
7 variable, UK dummy variable, and gender; $R^2 = .04, Q_{\text{model}} = 6.76, df = 3, p > .05$) with a full
8 multiple random effects metaregression model containing time and the control covariates (i.e.,
9 Model 3). A significant amount of additional model variance was explained when time was
10 included alongside the control covariates; $\Delta R^2 = .22, F(1, 158) = 45.30, p < .01$. Such model
11 improvement is consistent with the interpretation that time explains variability in socially
12 prescribed perfectionism scores beyond the influence of country and gender.

13 **Other-oriented perfectionism.** For other-oriented perfectionism, as with self-oriented
14 perfectionism and socially prescribed perfectionism, we first tested a simple random effects
15 metaregression model including only time as a covariate (Model 1). An insignificant portion of
16 variance in other-oriented perfectionism scores was explained by time ($R^2 = .01, Q_{\text{model}} = 1.19, df$
17 $= 1, p > .05$).

18 Next, we entered the dummy country variables alongside time in a multiple random
19 effects metaregression model of other-oriented perfectionism scores (Model 2). The covariates
20 explained a significant portion of the variance in this model ($R^2 = .16, Q_{\text{model}} = 20.62, df = 1, p <$
21 $.01$). An inspection of the metaregression coefficients revealed that time positively predicted
22 other-oriented perfectionism scores ($\beta = .23, p < .05$), as did both the USA ($\beta = .21, p < .05$) and
23 UK ($\beta = -.28, p < .01$) dummy variables. The positive sign of the time metaregression coefficient

1 is consistent with the interpretation that more recent generations of college students reported
 2 higher scores for other-oriented perfectionism than older generations of college students.
 3 Furthermore, together with significant Bonferroni pairwise comparisons³, the positive sign of the
 4 USA metaregression coefficient and negative sign of the UK metaregression coefficient are
 5 consistent with the interpretation that other-oriented perfectionism is typically highest among
 6 American college students and lowest among British college students.

7 We then entered our gender covariate to the country covariates and time in a final
 8 multiple random effects metaregression model of other-oriented perfectionism (Model 3).
 9 Consistent with Model 2, the covariates explained a significant portion of variance in other-
 10 oriented perfectionism scores in Model 3 ($R^2 = .17$, $Q_{\text{model}} = 20.76$, $df = 4$, $p < .01$). The
 11 significant metaregression coefficients for time ($\beta = .23$, $p < .05$), the USA dummy variable ($\beta =$
 12 $.21$, $p < .05$), and the UK dummy variable ($\beta = -.28$, $p < .01$) remained in Model 3, but gender ($\beta =$
 13 $-.04$, $p > .05$) was not a significant predictor of other-oriented perfectionism scores. Hence, in
 14 this model, no evidence of a relationship was found for other-oriented perfectionism and the
 15 proportion of females in a sample.

16 Lastly, we compared a restricted multiple random effects metaregression model of other-
 17 oriented perfectionism scores containing only the control covariates (i.e., USA dummy variable,
 18 UK dummy variable, and gender; $R^2 = .12$, $Q_{\text{model}} = 14.47$, $df = 3$, $p < .01$) with a full multiple
 19 random effects metaregression model containing time and the control covariates (i.e., Model 3).
 20 A significant amount of additional model variance was explained when time was included
 21 alongside the control covariates; $\Delta R^2 = .04$, $F(1, 102) = 5.14$, $p < .05$. Such model improvement

³ USA versus Canada $M_{\text{difference}} = .09$ (95% BCa CI = .01, .16); USA versus UK $M_{\text{difference}} = .16$ (95% BCa CI = .06, .75); Canada versus UK $M_{\text{difference}} = -.08$ (95% BCa CI = -.17, .01).

1 is consistent with the interpretation that time explains variability in other-oriented perfectionism
2 scores beyond the influence of country and gender.

3 **Effect size.** In the final step of our analysis, we calculated the effect size (Cohen's d) for
4 overall change in perfectionism dimensions from our initial time point (1989) to the present day
5 (2017). Effect size calculations were made using unstandardized beta coefficients from
6 metaregression Model 3. For self-oriented perfectionism, the regression equation yielded a
7 predicted value of 4.47 for 1989 and 4.59 for 2017. In the context of the weighted-average
8 within-study SD of 1.03, there was an increase of 0.12 SD s on the self-oriented scale over the 28-
9 year period of study. For socially prescribed perfectionism, the regression equation yielded a
10 predicted value of 3.35 for 1989 and 3.71 for 2017. In the context of the weighted-average
11 within-study SD of 0.90, there was an increase of 0.40 SD s on the socially prescribed
12 perfectionism scale over the 28-year period of study. For other-oriented perfectionism, the
13 regression equation yielded a predicted value of 3.81 for 1989 and 3.94 for 2017. In the context
14 of the weighted-average within-study SD of 0.71, there was an increase of 0.19 SD s on the other-
15 oriented perfectionism scale over the 28-year period of study.

16 Translating the SD change to percentile scores is informative. In the case of self-oriented
17 perfectionism, if the average college student in 1989 scored at the 50th percentile of the
18 distribution, the average college student in 2017 scored at the 55th percentile. This means that
19 fifty-five percent of college students in 2017 were above the 1989 mean self-oriented
20 perfectionism score, which amounts to a 10% increase. For socially prescribed perfectionism, if
21 the average college student in 1989 scored at the 50th percentile of the distribution, the average
22 college student in 2017 scored at the 66th percentile. Accordingly, nearly two-thirds of college
23 students in 2017 were above the 1989 mean socially prescribed perfectionism score, which

1 amounts to a 32% increase. In the case of other-oriented perfectionism, if the average college
2 student in 1989 scored at the 50th percentile of the distribution, the average college student in
3 2017 scored at the 58th percentile. Hence, nearly three-fifths of college students in 2017 were
4 above the 1989 other-oriented perfectionism mean, which amounts to a 16% increase.

5 **Discussion**

6 In the current study, multidimensional perfectionism measurements from 164 samples
7 and 41,641 American, Canadian, and British college students were meta-analyzed to test for birth
8 cohort differences between 1989 and 2016. In line with expectations, college students' mean
9 self-oriented perfectionism, socially prescribed perfectionism, and other-oriented perfectionism
10 scores displayed linear increases. Our findings remained holding between gender differences in
11 perfectionism scores constant. They also remained, or in the case of self-oriented and other-
12 oriented perfectionism emerged, holding between country differences in perfectionism scores
13 constant.

14 **Self-oriented perfectionism**

15 When holding between country differences in mean scores constant, we found that self-
16 oriented perfectionism increased over time. This finding suggests that recent generations of
17 college students are demanding higher expectations of themselves and attaching more
18 importance to perfection than previous generations. As to why self-oriented perfectionism is
19 rising, we speculated earlier on several cultural shifts that include competitiveness,
20 individualism, meritocracy, and anxious and controlling parental practices that may be
21 promoting perfectionism generally. The first two appear especially likely to instill an inner
22 personal desire to strive for perfection (Sherry, Mackinnon, & Gaultreau, 2016). However, it is
23 noteworthy that the smallest change over time was observed for self-oriented perfectionism in

1 comparison to the other dimensions of perfectionism. Given that dimensions of perfectionism
2 akin to self-oriented perfectionism have been found to have higher heritability than other
3 dimensions, perhaps this is not surprising (see Tozzi et al., 2004). It may be that self-oriented
4 perfectionism is the least amenable to change and therefore less affected by broader cultural
5 shifts (Hewitt et al., 2017). Our findings appear to support this possibility.

6 Alongside the effect of time, American college students appeared to report higher self-
7 oriented perfectionism than Canadian and British college students. Regarding why this might be
8 the case, some researchers have suggested that the US has become ‘hyper-individualistic’ in
9 recent decades (Klein, 2012). Since the 1980s and the Reagan era, communal values in the US
10 have waned in favor of an individualized notion of liberty, in which the uninhibited pursuit of
11 self-gain is prized more than anything else (Esposito, 2011). We also note that, relative to
12 Canada and the UK, the US has an especially strong meritocratic ethos at the heart of the
13 ‘American dream,’ which places emphasis on college to lift individuals up the social and
14 economic ladder (Rosenbaum, 2001). To this cultural difference, research suggests that, relative
15 to Canada and the UK, young people in the US report much higher educational expectations for
16 themselves (Jerrim, 2013). Therefore, the especially strong individualistic and meritocratic
17 culture in the US may explain why self-oriented perfectionism is seemingly especially high
18 among American college students.

19 **Socially prescribed perfectionism**

20 Perhaps the most important finding from this research is that more recent generations of
21 college students are reporting higher levels of socially prescribed perfectionism than previous
22 generations. This finding suggests that young people are perceiving that their social context is
23 increasingly demanding, that others judge them more harshly, and that they are increasingly

1 inclined to display perfection as a means of securing approval. We highlight the salience of this
2 finding because of the size of the comparative increase, twice that of the other two dimensions,
3 and the larger association between socially prescribed perfectionism and psychopathology
4 (Limburg, Egan, Watson, & Hagger, 2017). Rising socially prescribed perfectionism dovetails
5 with observations of rising externality of control, anxiety, and neurosis among young people, in
6 addition to a rising sense of social disconnection (e.g., Paik & Sanchagrin, 2013; Twenge, 2000;
7 Twenge, Zhang, & Im, 2004). These are worrying trends and suggest that young people may be
8 increasingly more sensitive to perceived external pressures and are finding it more difficult than
9 previous generations to cope with them.

10 Alongside the effect of time, American college students appeared to report lower socially
11 prescribed perfectionism than Canadian and British college students. It is unclear why these
12 differences are evident. As western, industrialized, predominantly English-speaking nations,
13 these three countries arguably share more similarities than differences in terms of the cultural
14 environments. It may be that given college students in the US also reported higher levels of self-
15 oriented perfectionism than in Canada or the UK, perceptions that others are demanding are
16 superseded by their own expectations of themselves. Alternatively, it may actually reflect
17 changes and differences between the countries. For example, the US has been the fastest of the
18 industrialized nations to shrink its communal investments (Blyth, 2013). This contrasts with
19 Canada and the UK which, despite substantial reductions, still have sizable components of a
20 welfare state (e.g., nationalized health services) and, possibly, a greater sense of communal
21 responsibility and pressure. This may explain the current findings because perfectionism
22 dimensions associated with social concern (e.g., socially prescribed perfectionism, concern over
23 mistakes, parent criticism) are higher among individuals with heritage in communal cultures

1 (e.g., Asia) than among individuals with heritage in more individualistic cultures (e.g., North
2 America and Europe; Chang, 1998, 2002; Pulford, Johnson, & Awaida, 2006).

3 **Other-oriented perfectionism**

4 Holding between country differences constant, we also found that other-oriented
5 perfectionism increased over time. This finding indicates that more recent generations of college
6 students appear to be imposing more demanding and unrealistic standards on those around them
7 than generations previous. We note that this finding is in line with studies reporting generational
8 increases in self-aggrandizement and interpersonal hostility (Bauman, 2002; Twenge, 2014).
9 Increases in narcissism, assertiveness, and dismissive attachment have also been observed across
10 a comparable period (Konrath, Chopik, Hsing, & O'Brien, 2014; Twenge, 2001b; Twenge,
11 Konrath, Foster, Campbell, & Bushman, 2008). Describing these increases, researchers implicate
12 a preoccupation with the perception and expression of self-esteem in contemporary culture.
13 According to Twenge (2014), the rise of individualism in the US (and elsewhere) has contributed
14 to a children's self-esteem becoming one of the dominant developmental outcomes within
15 education and parenting practices. For other-oriented perfectionism, this developmental
16 emphasis may have fostered a tendency in more recent generations of young people to zealously
17 promote and protect their self-esteem by hostility and a projection of high standards onto others
18 (e.g., Baumeister, Smart, & Boden, 1996; Jordan, Spencer, Zanna, Hoshino-Browne, & Correll,
19 2003; Kernis & Paradise, 2002).

20 Alongside the effect of time, analyses also suggested that British college students report
21 lower levels of other-oriented perfectionism than American and Canadian college students.
22 Again, we can only speculate on the reasons for this finding. Unlike in the US and Canada where
23 self-promotion is culturally accepted and encouraged (Zweig, 2015), self-promotion is typically

1 considered ‘culturally taboo’ in the UK (Molinsky, 2013). Indeed, social anthropometric studies
2 show people in the UK are typically uncomfortable with being praised in public, with modesty
3 and self-deprecation preferred British traits (see Fox, 2004). Given this cultural distinction, it
4 may not be surprising that scores on the aggrandizing dimension of perfectionism, that which is
5 directed outwards onto others, are lower in UK samples. This is an interesting additional finding
6 and one that merits subsequent research to be better understood.

7 **Rising perfectionism and psychopathology**

8 In reflecting on our findings, one issue of especial relevance is the harm and
9 psychological difficulties that might accompany an increase in perfectionism. According to the
10 most recent global health estimates from the World Health Organization (2017), serious mental
11 illness afflicts a record number of young people. In the US, Canada, and the UK, young people
12 are experiencing higher levels of depression, anxiety, and suicide ideation than they did a decade
13 ago (e.g., Bloch, 2016; Bor, Dean, Najman, & Hayatbakhsh, 2014; Patel, Flisher, Hetrick, &
14 McGorry, 2007). They also report more loneliness and present to clinicians with eating disorders
15 and body dysmorphia at a higher rate than generations previous (e.g., Paik & Sanchagrin, 2013;
16 Smink, et al., 2012; Thompson & Durrani, 2007). In the context of these data, and other meta-
17 analytic evidence (e.g., Smith et al., 2016, in press; Hill & Curran, 2016), the increases in
18 perfectionism observed here have the potential to explain some of the increase in the prevalence
19 of psychopathology. At least, increases in perfectionism make for a compelling backdrop to
20 these other trends.

21 We propose the link between rising perfectionism and rising psychopathology because
22 perfectionism is a core vulnerability to a variety of disorders, symptoms, and syndromes (Flett &
23 Hewitt, 2002). This is partly because, although perfectionists have an excessive need for others

1 approval, they feel socially disconnected and such alienation renders them susceptible to
2 profound psychological turmoil (Hewitt et al., 2017). The dimension of perfectionism that
3 exhibited the greatest increase, socially prescribed perfectionism, is especially damaging in this
4 regard (Hewitt, Flett, Sherry, & Caelian, 2006). In a recent meta-analysis, socially prescribed
5 perfectionism was revealed to be positively related to a range of psychological disorders and
6 symptoms of disorders (e.g., social phobia, body dissatisfaction, bulimia nervosa, and suicide
7 ideation) and had the largest relationship of other dimensions of perfectionism with depression
8 and anxiety (Limburg et al., 2017). It is likely, then, that while the increases in self-oriented and
9 other-oriented perfectionism are important, the size of the increase in socially prescribed
10 perfectionism and its acute relevance to psychopathology means that, of the three dimensions, it
11 is likely to be the most important in terms of explaining recent increases in mental health
12 difficulties among young people.

13 **Limitations and future research**

14 Our study provides the first test of generational change in multidimensional
15 perfectionism. However, several limitations of the study are noteworthy. Firstly, we focused on
16 examining levels of perfectionism in college students. The findings are therefore restricted to this
17 group who tend to be white and from higher socioeconomic backgrounds than young people
18 generally. Secondly, while the between-study effect size variance in this meta-analysis was
19 relatively small ($\tau \leq .17$), the proportion of this variance that was not due to chance was quite
20 large ($I^2 \geq 88.66\%$). This is likely due to several factors including; (i) the vast time span of data
21 retrieval (27-years), (ii) data collected from different laboratories, and (iii) the influence of other
22 factors beyond the year of data collection that may influence perfectionism scores. To this latter
23 possibility, several personality traits such as neuroticism, narcissism, and extraversion have been

1 found to have increased over a comparable period to the one studied here. Similar changes in
2 demographic factors among college students (e.g., gender, social-economic status, country of
3 origin) might also be significant and account for changes in perfectionism. Together, these
4 factors may be important control variables in future work examining change in perfectionism
5 across time. The use of a sole coder is a potential source of bias which we attempted to mitigate
6 by; (i) establishing mutually defined decision rules for coding that the two authors agreed upon
7 prior to coding and, (ii) checking for anomalies and outliers prior to analyses. Finally, as the
8 perfectionism research continues to accrue, we believe it would be interesting for future research
9 to examine the within-country effects of time on perfectionism for the US, Canada, and the UK.
10 Alongside country-level estimates, such an analysis has the advantage of permitting tests of
11 regional variation in levels of perfectionism, which can be mapped onto several political,
12 economic, social, and health variables (see Rentfrow et al., 2013).

13 **Conclusion**

14 The current study is the first to examine generational differences in perfectionism at a
15 cohort level. Our findings suggest that self-oriented perfectionism, socially prescribed
16 perfectionism, and other-oriented perfectionism have increased over the last 27 years. We
17 speculate that this may be because, generally, American, Canadian, and British cultures have
18 become more individualistic, materialistic, and socially antagonistic over this period, with young
19 people now facing more competitive environments, more unrealistic expectations, and more
20 anxious and controlling parents than generations before.

21 **References**

22 Abel, J. R., Deitz, R., & Su, Y. (2014). Are recent college graduates finding good jobs?
23 *Current Issues in Economics and Finance*, 20, 1-8.

- 1 *Akram, U., Ellis, J. G., & Barclay, N. L. (2015). Anxiety mediates the relationship
2 between perfectionism and insomnia symptoms: A longitudinal study. *PloS one*, *10*, e0138865.
- 3 *Aldea, M. A., & Rice, K. G. (2006). The role of emotional dysregulation in
4 perfectionism and psychological distress. *Journal of Counseling Psychology*, *53*, 498-510.
- 5 American Society of Plastic Surgeons (2016). *2015 Plastic surgery statistics report*.
6 Available at: [http://www.plasticsurgery.org/Documents/news-resources/statistics/2015-
7 statistics/plastic-surgery-statsitics-full-report.pdf](http://www.plasticsurgery.org/Documents/news-resources/statistics/2015-
7 statistics/plastic-surgery-statsitics-full-report.pdf). Accessed January 20, 2017.
- 8 Appleton, P. R., Hall, H. K., & Hill, A. P. (2010). Family patterns of perfectionism: An
9 examination of elite junior athletes and their parents. *Psychology of Sport and Exercise*, *11*, 363-
10 371.
- 11 Baird, C. L., Burge, S. W., & Reynolds, J. R. (2008). Absurdly ambitious? Teenagers'
12 expectations for the future and the realities of social structure. *Sociology Compass*, *2*, 944-962.
- 13 Banai, E., Mikulincer, M., & Shaver, P. R. (2005). " Self-object" Needs in Kohut's Self
14 Psychology: Links With Attachment, Self-Cohesion, Affect Regulation, and
15 Adjustment. *Psychoanalytic Psychology*, *22*, 224-260.
- 16 Barber, B. K. (1996). Parental psychological control: Revisiting a neglected
17 construct. *Child Development*, *67*, 3296-3319.
- 18 *Bardone-Cone, A. M. (2007). Self-oriented and socially prescribed perfectionism
19 dimensions and their associations with disordered eating. *Behaviour Research and Therapy*, *45*,
20 1977-1986.
- 21 *Bardone-Cone, A. M., Cass, K. M., & Ford, J. A. (2008). Examining body
22 dissatisfaction in young men within a biopsychosocial framework. *Body Image*, *5*, 183-194.

- 1 *Bardone-Cone, A. M., Weishuhn, A. S., & Boyd, C. A. (2009). Perfectionism and
2 bulimic symptoms in African American college women: Dimensions of perfectionism and their
3 interactions with perceived weight status. *Journal of Counseling Psychology, 56*, 266-275.
- 4 Bauman, Z. (2002). Individually together. In U. Beck and E. Beck-Gernsheim (Eds.),
5 *Individualization* (pp. xix-xx). London: Sage.
- 6 Baumeister, R. F., Smart, L., & Boden, J. M. (1996). Relation of threatened egotism to
7 violence and aggression: the dark side of high self-esteem. *Psychological Review, 103*, 5-33.
- 8 Belsky, J. (1984). The determinants of parenting: A process model. *Child Development,*
9 *55*, 83-96.
- 10 Besser, A., Flett, G. L., & Hewitt, P. L. (2004). Perfectionism, cognition, and affect in
11 response to performance failure vs. success. *Journal of Rational-Emotive and Cognitive-*
12 *Behavior Therapy, 22*, 297-324.
- 13 Besser, A., Flett, G. L., Hewitt, P. L., & Guez, J. (2008). Perfectionism, and cognitions,
14 affect, self-esteem, and physiological reactions in a performance situation. *Journal of Rational-*
15 *Emotive & Cognitive-Behavior Therapy, 26*, 206-228.
- 16 *Blankstein, K. R., Lumley, C. H., & Crawford, A. (2007). Perfectionism, hopelessness,
17 and suicide ideation: Revisions to diathesis-stress and specific vulnerability models. *Journal of*
18 *Rational-Emotive & Cognitive-Behavior Therapy, 25*, 279-319.
- 19 *Blasberg, J. S. (2009). *Perfectionism and positive and negative outcomes: can*
20 *achievement motivation and conscientiousness account for "adaptive"*
21 *perfectionism?* Unpublished doctoral thesis: University of British Columbia.
- 22 Blatt, S. J. (1995). The destructiveness of perfectionism: Implications for the treatment of
23 depression. *American Psychologist, 50*, 1003-1020.

- 1 Bloch, M. H. (2016). Editorial: Reducing adolescent suicide. *Journal of Child*
2 *Psychology and Psychiatry*, 57, 773-774.
- 3 Blyth, M. (2002). *Great Transformations: The Rise and Decline of Embedded*
4 *Liberalism*. Cambridge: Cambridge University Press.
- 5 Blyth, M. (2013). *Austerity: the history of a dangerous idea*. Oxford: Oxford University
6 Press.
- 7 Bor, W., Dean, A. J., Najman, J., & Hayatbakhsh, R. (2014). Are child and adolescent
8 mental health problems increasing in the 21st century? A systematic review. *Australian & New*
9 *Zealand Journal of Psychiatry*, 48, 606-616.
- 10 *Bottos, S., & Dewey, D. (2004). Perfectionists' appraisal of daily hassles and chronic
11 headache. *Headache: The Journal of Head and Face Pain*, 44, 772-779.
- 12 Bricker, J., Ramcharan, R., & Krimmel, J. (2014). *Signaling status: The impact of*
13 *relative income on household consumption and financial decisions*. Federal Reserve Board:
14 FEDS Working Paper 2014-76.
- 15 *Brown, A. J., Parman, K. M., Rudat, D. A., & Craighead, L. W. (2012). Disordered
16 eating, perfectionism, and food rules. *Eating Behaviors*, 13, 347-353.
- 17 British Association of Aesthetic Plastic Surgeons. (2015). *SUPER CUTS 'Daddy*
18 *Makeovers' and Celeb Confessions: Cosmetic Surgery Procedures Soar in Britain*. Available at:
19 <http://baaps.org.uk/about-us/press-releases/2202-super-cuts-daddy-makeovers-and-celeb->
20 [confessions-cosmetic-surgery-procedures-soar-in-britain](http://baaps.org.uk/about-us/press-releases/2202-super-cuts-daddy-makeovers-and-celeb-confessions-cosmetic-surgery-procedures-soar-in-britain). Accessed January 20, 2017.
- 21 Brynin, M. (2013). Individual choice and risk: The case of higher
22 education. *Sociology*, 47, 284-300.

- 1 *Buhr, K., & Dugas, M. J. (2006). Investigating the construct validity of intolerance of
2 uncertainty and its unique relationship with worry. *Journal of Anxiety Disorders, 20*, 222-236.
- 3 Burns, D. D. (1980). The perfectionist's script for self-defeat. *Psychology Today*, 34-52.
- 4 *Busko, D. A. (1998). *Causes and consequences of perfectionism and procrastination: A*
5 *structural equation model*. Unpublished masters thesis: University of Guelph.
- 6 *Calderwood, M. (2017). The effects of perfectionism on decisional delay under
7 conditions of perceived risk. Unpublished masters thesis: Laurentian University.
- 8 *Carter, M. M., & Weissbrod, C. S. (2011). Gender differences in the relationship
9 between competitiveness and adjustment among athletically identified college
10 students. *Psychology, 2*, 85-90.
- 11 Chang, E. C. (1998). Cultural differences, perfectionism, and suicidal risk in a college
12 population: Does social problem solving still matter? *Cognitive Therapy and Research, 22*, 237-
13 254.
- 14 Chang, E. C. (2002). Examining the link between perfectionism and psychological
15 maladjustment: Social problem solving as a buffer. *Cognitive Therapy and Research, 26*, 581-
16 595.
- 17 *Chang, E. C. (2006). Perfectionism and Dimensions of Psychological Well-Being in a
18 college Student Sample: A test of a stress-Mediation Model. *Journal of Social and Clinical*
19 *Psychology, 25*, 1001-1022.
- 20 *Chang, E. C., & Rand, K. L. (2000). Perfectionism as a predictor of subsequent
21 adjustment: Evidence for a specific diathesis-stress mechanism among college students. *Journal*
22 *of Counseling Psychology, 47*, 129-137.

- 1 *Chang, E. C., & Sanna, L. J. (2001). Negative attributional style as a moderator of the
2 link between perfectionism and depressive symptoms: Preliminary evidence for an integrative
3 model. *Journal of Counseling Psychology, 48*, 490-495.
- 4 *Chang, E. C., Ivezaj, V., Downey, C. A., Kashima, Y., & Morady, A. R. (2008).
5 Complexities of measuring perfectionism: Three popular perfectionism measures and their
6 relations with eating disturbances and health behaviors in a female college student
7 sample. *Eating Behaviors, 9*, 102-110.
- 8 *Chang, E. C., Sanna, L. J., Chang, R., & Bodem, M. R. (2008). A preliminary look at
9 loneliness as a moderator of the link between perfectionism and depressive and anxious
10 symptoms in college students: Does being lonely make perfectionistic strivings more
11 distressing? *Behaviour Research and Therapy, 46*, 877-886.
- 12 *Chen, C., Hewitt, P. L., & Flett, G. L. (2017). Ethnic variations in other-oriented
13 perfectionism's associations with depression and suicide behaviour. *Personality and Individual
14 Differences, 104*, 504-509.
- 15 *Clark, D. A., Steer, R. A., Beck, A. T., & Ross, L. (1995). Psychometric characteristics
16 of revised sociotropy and autonomy scales in college students. *Behaviour Research and
17 Therapy, 33*, 325-334.
- 18 Clark, K. B. (1965). What motivates American Whites? *Ebony, 20*, 69-74.
- 19 *Closson, L. M., & Boutilier, R. R. (in press). Perfectionism, academic engagement, and
20 procrastination among undergraduates: The moderating role of honors student status. *Learning
21 and Individual Differences*.

1 Cole J. C. (2008). How to deal with missing data: conceptual overview and details for
2 implementing two modern methods. In J. W. Osborne (Ed.), *Best Practices in Quantitative*
3 *Methods* (pp. 214–238). Los Angeles, CA: Sage.

4 Collishaw, S., Gardner, F., Maughan, B., Scott, J., & Pickles, A. (2012). Do historical
5 changes in parent–child relationships explain increases in youth conduct problems? *Journal of*
6 *Abnormal Child Psychology*, *40*, 119-132.

7 *Conroy, D. E., Kaye, M. P., & Fifer, A. M. (2007). Cognitive links between fear of
8 failure and perfectionism. *Journal of Rational-Emotive & Cognitive-Behavior Therapy*, *25*, 237-
9 253.

10 Cook, L. C., & Kearney, C. A. (2009). Parent and youth perfectionism and internalizing
11 psychopathology. *Personality and Individual Differences*, *46*, 325-330.

12 *Cooks, J. A. (2017). *The impact of perfectionism, rumination, performance feedback,*
13 *and stress on affect and depressive symptoms*. Unpublished masters dissertation: Kent State
14 University.

15 Cox, B. J., Enns, M. W., & Clara, I. P. (2002). The multidimensional structure of
16 perfectionism in clinically distressed and college student samples. *Psychological assessment*, *14*,
17 365-373.

18 Damian, L. E., Stoeber, J., Negru, O., & Băban, A. (2013). On the development of
19 perfectionism in adolescence: Perceived parental expectations predict longitudinal increases in
20 socially prescribed perfectionism. *Personality and Individual Differences*, *55*, 688-693.

21 Davies, W. (2014). *The Limits of Neoliberalism Authority, Sovereignty and the Logic of*
22 *Competition*. London: Sage.

- 1 *Davis, C., Karvinen, K., & McCreary, D. R. (2005). Personality correlates of a drive for
2 muscularity in young men. *Personality and Individual Differences, 39*, 349-359.
- 3 De Botton, A. (2004). *Status anxiety*. New York, NY: Pantheon.
- 4 *Dean, P. J., Range, L. M., & Goggin, W. C. (1996). The escape theory of suicide in
5 college students: Testing a model that includes perfectionism. *Suicide and Life-Threatening*
6 *Behavior, 26*, 181-186.
- 7 *Desnoyers, A., & Arpin-Cribbie, C. (2015). Examining cognitive performance: Do
8 perfectionism and rumination matter? *Personality and Individual Differences, 76*, 94-98.
- 9 *Downey, C. A., & Chang, E. C. (2007). Perfectionism and symptoms of eating
10 disturbances in female college students: Considering the role of negative affect and body
11 dissatisfaction. *Eating Behaviors, 8*, 497-503.
- 12 *Downey, C. A., Reinking, K. R., Gibson, J. M., Cloud, J. A., & Chang, E. C. (2014).
13 Perfectionistic cognitions and eating disturbance: Distinct mediational models for males and
14 females. *Eating behaviors, 15*, 419-426.
- 15 *Dunkley, D. M., & Blankstein, K. R. (2000). Self-critical perfectionism, coping, hassles,
16 and current distress: A structural equation modeling approach. *Cognitive Therapy and*
17 *Research, 24*, 713-730.
- 18 *Dunkley, D. M., Blankstein, K. R., & Berg, J. L. (2012). Perfectionism dimensions and
19 the five-factor model of personality. *European Journal of Personality, 26*, 233-244.
- 20 *Dunkley, D. M., Blankstein, K. R., Halsall, J., Williams, M., & Winkworth, G. (2000).
21 The relation between perfectionism and distress: Hassles, coping, and perceived social support as
22 mediators and moderators. *Journal of Counseling Psychology, 47*, 437-453.

1 *Dunkley, D. M., Blankstein, K. R., Masheb, R. M., & Grilo, C. M. (2006). Personal
2 standards and evaluative concerns dimensions of “clinical” perfectionism: A reply to Shafran et
3 al.(2002, 2003) and Hewitt et al.(2003). *Behaviour Research and Therapy*, 44, 63-84.

4 *Dunkley, D. M., Zuroff, D. C., & Blankstein, K. R. (2003). Self-critical perfectionism
5 and daily affect: dispositional and situational influences on stress and coping. *Journal of*
6 *Personality and Social Psychology*, 84, 234-252.

7 *Dunn, J. G., Gotwals, J. K., & Dunn, J. C. (2005). An examination of the domain
8 specificity of perfectionism among intercollegiate student-athletes. *Personality and Individual*
9 *Differences*, 38, 1439-1448.

10 Eckersley, R. (2006). Is modern Western culture a health hazard? *International Journal*
11 *of Epidemiology*, 35, 252-258.

12 *Eddington, K. M. (2014). Perfectionism, goal adjustment, and self-regulation: A short-
13 term follow-up study of distress and coping. *Self and Identity*, 2, 197-213.

14 Ehrenreich, B. (1989). *Fear of falling: The inner life of the middle class*. New York:
15 Harper Collins.

16 Enns, M. W., & Cox, B. J. (2005). Perfectionism, stressful life events, and the 1-year
17 outcome of depression. *Cognitive Therapy and Research*, 29, 541-553.

18 *Enns, M. W., Cox, B. J., & Clara, I. (2002). Adaptive and maladaptive perfectionism:
19 Developmental origins and association with depression proneness. *Personality and Individual*
20 *Differences*, 33, 921-935.

21 *Enns, M. W., Cox, B. J., & Clara, I. P. (2005). Perfectionism and neuroticism: A
22 longitudinal study of specific vulnerability and diathesis-stress models. *Cognitive Therapy and*
23 *Research*, 29, 463-478.

1 *Enns, M. W., Cox, B. J., Sareen, J., & Freeman, P. (2001). Adaptive and maladaptive
2 perfectionism in medical students: a longitudinal investigation. *Medical Education*, 35, 1034-
3 1042.

4 Esposito, L. (2011). Neoliberalism and the Market Society. In John W. Murphy and
5 Karen A. Callaghan (Eds.), *Toward a Post-Market Society* (pp. 29-48). New York, NY: Nova
6 Science Publishers.

7 *Ey, S., Henning, K. R., & Shaw, D. L. (2000). Attitudes and factors related to seeking
8 mental health treatment among medical and dental students. *Journal of College Student*
9 *Psychotherapy*, 14, 23-39.

10 *Ferrari, J. R., & Mautz, W. T. (1997). Predicting perfectionism: Applying tests of
11 rigidity. *Journal of Clinical Psychology*, 53, 1-6.

12 *Flamenbaum, R., & Holden, R. R. (2007). Psychache as a mediator in the relationship
13 between perfectionism and suicidality. *Journal of Counseling Psychology*, 54, 51-61.

14 *Flett, G. L., Besser, A., Davis, R. A., & Hewitt, P. L. (2003). Dimensions of
15 perfectionism, unconditional self-acceptance, and depression. *Journal of Rational-Emotive and*
16 *Cognitive-Behavior Therapy*, 21, 119-138.

17 *Flett, G. L., Besser, A., Hewitt, P. L., & Davis, R. A. (2007). Perfectionism, silencing
18 the self, and depression. *Personality and Individual Differences*, 43, 1211-1222.

19 *Flett, G. L., Blankstein, K. R., Hewitt, P. L., & Koledin, S. (1992). Components of
20 perfectionism and procrastination in college students. *Social Behavior and Personality: an*
21 *International Journal*, 20, 85-94.

22 *Flett, G. L., Endler, N. S., Tassone, C., & Hewitt, P. L. (1994). Perfectionism and
23 components of state and trait anxiety. *Current Psychology*, 13, 326-350.

1 *Flett, G. L., Galfi-Pechenkov, I., Molnar, D. S., Hewitt, P. L., & Goldstein, A. L.
2 (2012). Perfectionism, mattering, and depression: A mediational analysis. *Personality and*
3 *Individual Differences, 52*, 828-832.

4 *Flett, G. L., Goldstein, A., Wall, A. M., Hewitt, P. L., Wekerle, C., & Azzi, N. (2008).
5 Perfectionism and binge drinking in Canadian students making the transition to
6 university. *Journal of American College Health, 57*, 249-256.

7 Flett, G. L., & Hewitt, P. L. (2002). Perfectionism and maladjustment: An overview of
8 theoretical, definitional, and treatment issues. In P. L. Hewitt, & G. L. Flett (Eds.),
9 *Perfectionism: Theory, research, and treatment* (pp. 531). Washington, DC: American
10 Psychological Association.

11 Flett, G. L., Hewitt, P. L., & Singer, A. (1995). Perfectionism and parental authority
12 styles. *Individual Psychology, 51*, 50–60.

13 *Flett, G. L., Hewitt, P. L., Blankstein, K. R., & Dynin, C. B. (1994). Dimensions of
14 perfectionism and Type A behaviour. *Personality and individual differences, 16*, 477-485.

15 *Flett, G. L., Hewitt, P. L., Blankstein, K. R., & Mosher, S. W. (1995). Perfectionism,
16 life events, and depressive symptoms: A test of a diathesis-stress model. *Current Psychology, 14*,
17 112-137.

18 *Flett, G. L., Hewitt, P. L., Blankstein, K. R., & Pickering, D. (1998). Perfectionism in
19 relation to attributions for success or failure. *Current Psychology, 17*, 249-262.

20 *Flett, G. L., Hewitt, P. L., Blankstein, K. R., Solnik, M., & Van Brunschot, M. (1996).
21 Perfectionism, social problem-solving ability, and psychological distress. *Journal of Rational-*
22 *Emotive and Cognitive-Behavior Therapy, 14*, 245-274.

1 *Flett, G. L., Hewitt, P. L., Blankstein, K., & O'Brien, S. (1991). Perfectionism and
2 learned resourcefulness in depression and self-esteem. *Personality and individual*
3 *differences, 12*, 61-68.

4 Flett, G. L., Hewitt, P. L., Boucher, D., Davidson, L., & Munro, Y. (2001). *The Child-*
5 *Adolescent Perfectionism Scale: Development, validation, and association with adjustment.*
6 Unpublished manuscript.

7 *Flett, G. L., Hewitt, P. L., Garshowitz, M., & Martin, T. R. (1997). Personality, negative
8 social interactions, and depressive symptoms. *Canadian Journal of Behavioural Science/Revue*
9 *canadienne des sciences du comportement, 29*, 28-37.

10 Flett, G. L., Hewitt, P. L., Oliver, J. M., & MacDonald, S. (2002). Perfectionism in
11 children and their parents: A developmental analysis. In G. L. Flett & P. L. Hewitt (Eds.),
12 *Perfectionism: Theory, research, and treatment* (pp. 89–132). Washington, DC: American
13 Psychological Association.

14 Flett, G. L., Nepon, T., & Hewitt, P. L. (2015). Perfectionism, worry, and rumination in
15 health and mental health: A review and a conceptual framework for a cognitive theory of
16 perfectionism. In F. M. Sirois, & D. S. Molnar (Eds.), *Perfectionism, health, and well-being* (pp
17 121–155). Springer International Publishing: Switzerland.

18 *Flett, G. L., Nepon, T., Hewitt, P. L., & Fitzgerald, K. (2016). Perfectionism,
19 Components of Stress Reactivity, and Depressive Symptoms. *Journal of Psychopathology and*
20 *Behavioral Assessment, 38*, 645-654.

21 *Flett, G. L., Nepon, T., Hewitt, P. L., Molnar, D. S., & Zhao, W. (2016). Projecting
22 perfection by hiding effort: supplementing the perfectionistic self-presentation scale with a brief
23 self-presentation measure. *Self and Identity, 15*, 245-261.

1 *Flett, G. L., Sawatzky, D. L., & Hewitt, P. L. (1995). Dimensions of perfectionism and
2 goal commitment: A further comparison of two perfectionism measures. *Journal of*
3 *Psychopathology and Behavioral Assessment*, 17, 111-124.

4 Fox, K. (2004). *Watching the English: The Hidden Rules of English Behaviour*. London:
5 Hodder.

6 *Franche, V., Gaudreau, P., & Miranda, D. (2012). The 2× 2 model of perfectionism: A
7 comparison across Asian Canadians and European Canadians. *Journal of Counseling*
8 *Psychology*, 59, 567-574.

9 Frank, T. (2016). *Listen Liberal: Or What Ever Happened to the Party of the People?*
10 Metropolitan Books: New York.

11 Frost, R. O., Heimberg, R. G., Holt, C. S., Mattia, J. I., & Neubauer, A. L. (1993). A
12 comparison of two measures of perfectionism. *Personality and Individual Differences*, 14, 119-
13 126.

14 Frost, R. O., Lahart, C. M., & Rosenblate, R. (1991). The development of perfectionism:
15 A study of daughters and their parents. *Cognitive Therapy and Research*, 15, 469-489.

16 Frost, R. O., Marten, P., Lahart, C., & Rosenblate, R. (1990). The dimensions of
17 perfectionism. *Cognitive Therapy and Research*, 14, 449-468.

18 Fry, P. S., & Debats, D. L. (2009). Perfectionism and the five-factor personality traits as
19 predictors of mortality in older adults. *Journal of Health Psychology*, 14, 513-524.

20 *Gaudreau, P. (2015). Self-assessment of the four subtypes of perfectionism in the 2× 2
21 model of perfectionism. *Personality and Individual Differences*, 84, 52-62.

- 1 *Gilbert, P., Durrant, R., & McEwan, K. (2006). Investigating relationships between
2 perfectionism, forms and functions of self-criticism, and sensitivity to put-down. *Personality and*
3 *Individual Differences, 41*, 1299-1308.
- 4 GlobalWebIndex. (2016). *GWI Social: GlobalWebIndex's quarterly report on the latest*
5 *trends in social networking*. Available at: [http://blog.globalwebindex.net/chart-of-the-day/social-](http://blog.globalwebindex.net/chart-of-the-day/social-media-captures-30-of-online-time/)
6 [media-captures-30-of-online-time/](http://blog.globalwebindex.net/chart-of-the-day/social-media-captures-30-of-online-time/). Accessed January 20, 2017.
- 7 Grabe, S., Ward, L. M., & Hyde, J. S. (2008). The role of the media in body image
8 concerns among women: a meta-analysis of experimental and correlational
9 studies. *Psychological Bulletin, 134*, 460-476.
- 10 Guinier, L. (2015). *The tyranny of the meritocracy: Democratizing higher education in*
11 *America*. Boston, MA: Beacon Press.
- 12 Habke, A. M., Hewitt, P. L., & Flett, G. L. (1999). Perfectionism and sexual satisfaction
13 in intimate relationships. *Journal of Psychopathology and Behavioral Assessment, 21*, 307-322.
- 14 Hamachek, D. E. (1978). *Psychodynamics of normal and neurotic perfectionism*.
15 *Psychology, 15*, 27-33.
- 16 Haring, M., Hewitt, P. L., & Flett, G. L. (2003). Perfectionism, coping, and quality of
17 intimate relationships. *Journal of Marriage and Family, 65*, 143-158.
- 18 *Harper, K. L., Eddington, K. M., Silvia, P. J. (2016). Perfectionism and Effort-Related
19 Cardiac Activity: Do Perfectionists Try Harder? *PLoS ONE, 11*, e0160340.
- 20 *Hart, B. A., Gilner, F. H., Handal, P. J., & Gfeller, J. D. (1998). The relationship
21 between perfectionism and self-efficacy. *Personality and Individual Differences, 24*, 109-113.
- 22 Harvey, D. (2005). *A brief history of neoliberalism*. Oxford, UK: Oxford University
23 Press.

- 1 Hayes, C. (2012). *Twilight of the elites: America after meritocracy*. New York, NY:
2 Crown.
- 3 *Hayward, L., & Arthur, N. (1998). Perfectionism and Post-Secondary
4 Students. *Canadian Journal of Counselling, 32*, 187-99.
- 5 *Hewitt, P. L., & Flett, G. L. (1991). Perfectionism in the self and social contexts:
6 Conceptualization, assessment, and association with psychopathology. *Journal of personality
7 and social psychology, 60*, 456-470.
- 8 Hewitt, P. L., & Flett, G. L. (1993). Dimensions of perfectionism, daily stress, and
9 depression: A test of the specific vulnerability hypothesis. *Journal of Abnormal Psychology, 102*,
10 58-65.
- 11 Hewitt, P. L., & Flett, G. L. (2004). *Multidimensional Perfectionism Scale (MPS):
12 Technical manual*. Toronto: Multi-Health Systems.
- 13 *Hewitt, P. L., Flett, G. L., & Ediger, E. (1995). Perfectionism traits and perfectionistic
14 self-presentation in eating disorder attitudes, characteristics, and symptoms. *International
15 Journal of Eating Disorders, 18*, 317-326.
- 16 Hewitt, P. L., Flett, G. L., & Mikail, S. F. (2017). *Perfectionism: A relational approach
17 to conceptualization, assessment, and treatment*. New York: Guilford.
- 18 Hewitt, P. L., Flett, G. L., Sherry, S. B., & Caelian, C. (2006). Trait perfectionism
19 dimensions and suicidal behavior. In T. E. Ellis (Ed.), *Cognition and suicide: Theory, research,
20 and therapy* (pp. 215-235). Washington, DC: American Psychological Association.
- 21 *Hewitt, P. L., Flett, G. L., & Weber, C. (1994). Dimensions of perfectionism and suicide
22 ideation. *Cognitive Therapy and Research, 18*, 439-460.

1 Hewitt, P. L., Newton, J., Flett, G. L., & Callander, L. (1997). Perfectionism and suicide
2 ideation in adolescent psychiatric patients. *Journal of Abnormal Child Psychology*, *25*, 95-101.

3 *Hill, A. P., Hall, H. K., & Appleton, P. R. (2011). The relationship between
4 multidimensional perfectionism and contingencies of self-worth. *Personality and Individual
5 Differences*, *50*, 238-242.

6 Hill, A. P., Hall, H. K., Duda, J. L., & Appleton, P. R. (2011). The cognitive, affective
7 and behavioural responses of self-oriented perfectionists following successive failure on a
8 muscular endurance task. *International Journal of Sport and Exercise Psychology*, *9*, 189-207.

9 *Hill, R. W., McIntire, K., & Bacharach, V. R. (1997). Perfectionism and the big five
10 factors. *Journal of Social Behavior and Personality*, *12*, 257-270.

11 *Hill, R. W., Zrull, M. C., & Turlington, S. (1997). Perfectionism and interpersonal
12 problems. *Journal of Personality Assessment*, *69*, 81-103.

13 Hollender, M. H. (1965). Perfectionism. *Comprehensive Psychiatry*, *6*, 94-103.

14 *Hope, N., Koestner, R., Holding, A., & Harvey, B. (2015). Keeping Up with the
15 Joneses: Friends' Perfectionism and Students' Orientation Toward Extrinsic Aspirations. *Journal
16 of Personality*, *84*, 702-715.

17 Ipsos MORI (2014). *Global Trends Survey*. Available at:
18 <http://www.ipsosglobaltrends.com/environment.html>. Accessed January 20, 2017.

19 Iranzo-Tatay, C., Gimeno-Clemente, N., Barberá-Fons, M., Rodríguez-Campayo, M. Á.,
20 Rojo-Bofill, L., Livianos-Aldana, L., ... & Rojo-Moreno, L. (2015). Genetic and environmental
21 contributions to perfectionism and its common factors. *Psychiatry Research*, *230*, 932-939.

- 1 Jacob, B. A. & Wilder, T. (2011). Educational Expectations and Attainment. In G.
2 Duncan & R. Murnane (Eds.). *Whither Opportunity: Rising Inequality, Schools, and Children's*
3 *Life Chances* (pp. 133–65). New York: Russell Sage Foundation.
- 4 Jerrim, J. (2014). The unrealistic educational expectations of high school pupils: Is
5 America exceptional? *The Sociological Quarterly*, *55*, 196-231.
- 6 Jiang, S. S., & Dunn, L. F. (2013). New evidence on credit card borrowing and
7 repayment patterns. *Economic Inquiry*, *51*, 394-407.
- 8 Johnson, M. K., & Reynolds, J. R. (2013). Educational expectation trajectories and
9 attainment in the transition to adulthood. *Social Science Research*, *42*, 818-835.
- 10 Jordan, C. H., Spencer, S. J., Zanna, M. P., Hoshino-Browne, E., & Correll, J. (2003).
11 Secure and defensive high self-esteem. *Journal of Personality and Social Psychology*, *85*, 969-
12 978.
- 13 Kasser, T., Ryan, R. M., Couchman, C. E., & Sheldon, K. M. (2004). Materialistic
14 values: Their causes and consequences. In T. Kasser & A. D. Kanfer (Eds.), *Psychology and*
15 *consumer cultures: The struggle for a good life in a materialistic world* (pp. 11–28).
16 Washington, DC: American Psychological Association.
- 17 *Kaye, M. P., Conroy, D. E., & Fifer, A. M. (2008). Individual differences in
18 incompetence avoidance. *Journal of Sport and Exercise Psychology*, *30*, 110-132.
- 19 Kernis, M. H., & Paradise, A. W. (2002). Distinguishing between secure and fragile
20 forms of high self-esteem. In E. L. Deci & R. M. Ryan (Eds.), *Handbook of self-determination*
21 *research* (pp. 339–360). Rochester, NY: University of Rochester Press.

- 1 *Klibert, J., Lamis, D. A., Collins, W., Smalley, K. B., Warren, J. C., Yancey, C. T., &
2 Winterowd, C. (2014). Resilience mediates the relations between perfectionism and college
3 student distress. *Journal of Counseling & Development, 92*, 75-82.
- 4 *Klibert, J., Lamis, D. A., Naufel, K., Yancey, C. T., & Lohr, S. (2015). Associations
5 Between Perfectionism and Generalized Anxiety: Examining Cognitive Schemas and
6 Gender. *Journal of Rational-Emotive & Cognitive-Behavior Therapy, 33*, 160-178.
- 7 Klein, J. (2012). *The Bully Society*. New York, NY: New York University Press.
- 8 Konrath, S. H., O'Brien, E. H., & Hsing, C. (2011). Changes in dispositional empathy in
9 American college students over time: A meta-analysis. *Personality and Social Psychology*
10 *Review, 15*, 180-198.
- 11 *Kobori, O., & Tanno, Y. (2008). Self-oriented perfectionism and information gathering
12 behaviour. *Australian Journal of Psychology, 60*, 26-30.
- 13 *Kutlesa, N., & Arthur, N. (2008). Overcoming negative aspects of perfectionism
14 through group treatment. *Journal of Rational-Emotive & Cognitive-Behavior Therapy, 26*, 134-
15 150.
- 16 *La Rocque, C. L., Lee, L., & Harkness, K. L. (2016). The role of current depression
17 symptoms in perfectionistic stress enhancement and stress generation. *Journal of Social and*
18 *Clinical Psychology, 35*, 64-86.
- 19 *Laurenti, H. J., Bruch, M. A., & Haase, R. F. (2008). Social anxiety and socially
20 prescribed perfectionism: Unique and interactive relationships with maladaptive appraisal of
21 interpersonal situations. *Personality and Individual Differences, 45*, 55-61.
- 22 Limburg, K., Watson, H. J., Hagger, M. S., & Egan, S. J. (in press). The Relationship
23 Between Perfectionism and Psychopathology: A Meta-Analysis. *Journal of Clinical Psychology*.

1 Lindley, J. & Machin, S. (2013). *The Postgraduate Premium: Revisiting Trends in Social*
2 *Mobility and Educational Inequalities in Britain and America*. London: The Sutton Trust.

3 Available at: <http://www.suttontrust.com/news/publications/the-postgraduate-premium/>.

4 Accessed January 20, 2017.

5 Lipsey, M. W., & Wilson, D. B. (2001). *Practical meta-analysis*. Thousand Oaks, CA:
6 Sage.

7 *Lutwak, N., & Ferrari, J. R. (1996). Moral affect and cognitive processes:
8 Differentiating shame from guilt among men and women. *Personality and Individual*
9 *Differences, 21*, 891-896.

10 Mackinnon, S. P., & Sherry, S. B. (2012). Perfectionistic self-presentation mediates the
11 relationship between perfectionistic concerns and subjective well-being: A three-wave
12 longitudinal study. *Personality and Individual Differences, 53*, 22-28.

13 *Mackinnon, S. P., Sherry, S. B., Pratt, M. W., & Smith, M. M. (2014). Perfectionism,
14 friendship intimacy, and depressive affect in transitioning university students: A longitudinal
15 study using mixed methods. *Canadian Journal of Behavioural Science/Revue canadienne des*
16 *sciences du comportement, 46*, 49-59.

17 Malahy, L. W., Rubinlicht, M. A., & Kaiser, C. R. (2009). Justifying inequality: A cross-
18 temporal investigation of US income disparities and just-world beliefs from 1973 to 2006. *Social*
19 *Justice Research, 22*, 369-383.

20 *Mann, M. P. (2004). The adverse influence of narcissistic injury and perfectionism on
21 college students' institutional attachment. *Personality and Individual Differences, 36*, 1797-
22 1806.

- 1 Markus, H. R., & Kitayama, S. (2010). Cultures and selves: A cycle of mutual
2 constitution. *Perspectives on Psychological Science*, 5, 420-430.
- 3 Marmot, M. (2004). Status syndrome. *Significance*, 1, 150-154.
- 4 *Martin, T. R., Flett, G. L., Hewitt, P. L., Krames, L., & Szanto, G. (1996). Personality
5 correlates of depression and health symptoms: A test of a self-regulation model. *Journal of*
6 *Research in Personality*, 30, 264-277.
- 7 *McGrath, D. S., Sherry, S. B., Stewart, S. H., Mushquash, A. R., Allen, S. L., Nealis, L.
8 J., & Sherry, D. L. (2012). Reciprocal relations between self-critical perfectionism and
9 depressive symptoms: Evidence from a short-term, four-wave longitudinal study. *Canadian*
10 *Journal of Behavioural Science/Revue canadienne des sciences du comportement*, 44, 169-181.
- 11 *McLaren, L. (1998). *Excessive commitment to exercise and the relationship between*
12 *dietary restraint and perfectionism: a case of moderation or mediation?* Unpublished doctoral
13 dissertation: Concordia University.
- 14 Mendelson, A. L., & Papacharissi, Z. (2011). Look at us: Collective narcissism in college
15 student Facebook photo galleries. In Z. Papacharissi (Ed.), *The networked self: Identity,*
16 *community and culture on social network sites* (pp. 251–273). London: Routledge.
- 17 *Miller, J. L., & Vaillancourt, T. (2007). Relation between childhood peer victimization
18 and adult perfectionism: Are victims of indirect aggression more perfectionistic? *Aggressive*
19 *Behavior*, 33, 230-241.
- 20 *Mills, J. S., & Blankstein, K. R. (2000). Perfectionism, intrinsic vs extrinsic motivation,
21 and motivated strategies for learning: A multidimensional analysis of university
22 students. *Personality and Individual Differences*, 29, 1191-1204.

- 1 Missildine, W. H. (1963). Perfectionism—If you must strive to “do better.”. In W. H.
2 Missildine (Ed.), *Your inner child of the past* (pp. 75–90). New York, NY: Pocket Books.
- 3 Mitchell, J. H., Broeren, S., Newall, C., & Hudson, J. L. (2013). An experimental
4 manipulation of maternal perfectionistic anxious rearing behaviors with anxious and non-anxious
5 children. *Journal of Experimental Child Psychology, 116*, 1-18.
- 6 Molinsky, A. (2013). *Global Dexterity: How to Adapt Your Behavior Across Cultures*
7 *Without Losing Yourself in the Process*. Boston: Harvard Business Press
- 8 *Molnar, D. S., Sadava, S. W., Flett, G. L., & Colautti, J. (2012). Perfectionism and
9 health: A mediational analysis of the roles of stress, social support and health-related
10 behaviours. *Psychology & health, 27*, 846-864.
- 11 Moretti, E. (2013). Real wage inequality. *American Economic Journal: Applied*
12 *Economics, 5*, 65-103.
- 13 *Morrison, R. (2008). *Suicidal thinking and psychological distress: The role of*
14 *personality and cognitive factors*. Unpublish doctorate thesis: University of Stirling.
- 15 Nealis, L. J., Sherry, S. B., Lee-Baggley, D. L., Stewart, S. H., & Macneil, M. A. (2016).
16 Revitalizing narcissistic perfectionism: Evidence of the reliability and the validity of an
17 emerging construct. *Journal of Psychopathology and Behavioral Assessment, 38*, 493-504.
- 18 *Nealis, L. J., Sherry, S. B., Sherry, D. L., Stewart, S. H., & Macneil, M. A. (2015).
19 Toward a better understanding of narcissistic perfectionism: Evidence of factorial validity,
20 incremental validity, and mediating mechanisms. *Journal of Research in Personality, 57*, 11-25.
- 21 *Nepon, T., Flett, G. L., & Hewitt, P. L. (2016). Self-image goals in trait perfectionism
22 and perfectionistic self-presentation: Toward a broader understanding of the drives and motives
23 of perfectionists. *Self and Identity, 15*, 683-706.

- 1 *Nepon, T., Flett, G. L., Hewitt, P. L., & Molnar, D. S. (2011). Perfectionism, negative
2 social feedback, and interpersonal rumination in depression and social anxiety. *Canadian*
3 *Journal of Behavioural Science/Revue canadienne des sciences du comportement*, *43*, 297-308.
- 4 Neumeister, K. L. S. (2004). Factors influencing the development of perfectionism in
5 gifted college students. *Gifted Child Quarterly*, *48*, 259-274.
- 6 *Neumeister, K. L., Fletcher, K. L., & Burney, V. H. (2015). Perfectionism and
7 achievement motivation in high-ability students: An examination of the 2×2 model of
8 perfectionism. *Journal for the Education of the Gifted*, *38*, 215-232.
- 9 *Neumeister, K. L. S., & Finch, H. (2006). Perfectionism in high-ability students:
10 Relational precursors and influences on achievement motivation. *Gifted Child Quarterly*, *50*,
11 238-251.
- 12 Neumeister, K. L., Williams, K. K., & Cross, T. L. (2009). Gifted high-school students'
13 perspectives on the development of perfectionism. *Roeper Review*, *31*, 198-206.
- 14 *O'Connor, R. C., & Forgan, G. (2007). Suicidal thinking and perfectionism: The role of
15 goal adjustment and behavioral inhibition/activation systems (BIS/BAS). *Journal of Rational-*
16 *Emotive & Cognitive-Behavior Therapy*, *25*, 321-341.
- 17 *O'Connor, D. B., O'Connor, R. C., & Marshall, R. (2007). Perfectionism and
18 psychological distress: Evidence of the mediating effects of rumination. *European Journal of*
19 *Personality*, *21*, 429-452.
- 20 *O'Connor, R., O'Connor, D., O'Connor, S., Smallwood, J., & Miles, J. (2004).
21 Hopelessness, stress, and perfectionism: The moderating effects of future thinking. *Cognition &*
22 *Emotion*, *18*, 1099-1120.

- 1 *Oliver, J. M., Hart, B. A., Ross, M. J., & Katz, B. M. (2001). Healthy Perfectionism and
2 Positive Expectations About Counseling. *North American Journal of Psychology*, 3, 229-242.
- 3 *Olson, M. L., & Kwon, P. (2008). Brooding perfectionism: Refining the roles of
4 rumination and perfectionism in the etiology of depression. *Cognitive Therapy and Research*, 32,
5 788-802.
- 6 Pacht, A. R. (1984). Reflections on perfection. *American Psychologist*, 39, 386-390.
- 7 Paik, A., & Sanchagrin, K. (2013). Social isolation in America: An artifact. *American*
8 *Sociological Review*, 78, 339-360.
- 9 Patel, V., Flisher, A. J., Hetrick, S., & McGorry, P. (2007). Mental health of young
10 people: a global public-health challenge. *The Lancet*, 369, 1302-1313.
- 11 Parment, A. (2013). Generation Y vs. Baby Boomers: Shopping behavior, buyer
12 involvement and implications for retailing. *Journal of Retailing and Consumer Services*, 20, 189-
13 199.
- 14 *Perera, M. J., & Chang, E. C. (2015). Ethnic variations between Asian and European
15 Americans in interpersonal sources of socially prescribed perfectionism: It's not just about
16 parents! *Asian American Journal of Psychology*, 6, 31-37.
- 17 Pew Research Center. (2007). *How young people view their lives, futures and politics: A*
18 *portrait of "Generation Next"*. Available at: [http://people-press.org/report/300/a-portrait-](http://people-press.org/report/300/a-portrait-of-generation-next)
19 [ofgeneration-next](http://people-press.org/report/300/a-portrait-of-generation-next). Accessed January 20, 2017.
- 20 Piketty, T. (2014). *Capital in the 21st Century*. Harvard University Press, Cambridge.
- 21 Portešová, Š., & Urbánek, T. (2013). Typology of perfectionism in a group of
22 mathematically gifted Czech adolescents over one decade. *The Journal of Early Adolescence*, 33,
23 1116-1144.

- 1 *Powers, T. A., Koestner, R., Zuroff, D. C., Milyavskaya, M., & Gorin, A. A. (2011).
2 The effects of self-criticism and self-oriented perfectionism on goal pursuit. *Personality and*
3 *Social Psychology Bulletin*, 37, 964-975.
- 4 *Pulford, B. D., Johnson, A., & Awaida, M. (2005). A cross-cultural study of predictors
5 of self-handicapping in university students. *Personality and Individual Differences*, 39, 727-737.
- 6 PwC (2015). *The costs of eating disorders: Social, health and economic impacts*.
7 Available at: [https://www.b-](https://www.b-eat.co.uk/assets/000/000/302/The_costs_of_eating_disorders_Final_original.pdf)
8 [eat.co.uk/assets/000/000/302/The costs of eating disorders Final original.pdf](https://www.b-eat.co.uk/assets/000/000/302/The_costs_of_eating_disorders_Final_original.pdf). Accessed
9 January 20, 2017.
- 10 Ramey, G., & Ramey, V. A. (2010). The rug rat race. *Brookings Papers on Economic*
11 *Activity, Spring*, 129 –176.
- 12 *Reilly, E. E., Stey, P., & Lapsley, D. K. (2016). A new look at the links between
13 perceived parenting, socially prescribed perfectionism, and disordered eating. *Personality and*
14 *Individual Differences*, 88, 17-20.
- 15 Rentfrow, P. J., Gosling, S. D., Jokela, M., Stillwell, D. J., Kosinski, M., & Potter, J.
16 (2013). Divided we stand: Three psychological regions of the United States and their political,
17 economic, social, and health correlates. *Journal of Personality and Social Psychology*, 105, 996-
18 1012.
- 19 *Reser, K. M. (2016). *Perfectionism and anxiety: Is there a difference between high-*
20 *ability students and their peers?* Unpublished doctoral thesis: University of Dayton.
- 21 Reynolds, J., Stewart, M., MacDonald, R., & Sisco, L. (2006). Have adolescents
22 become too ambitious? High school seniors' educational and occupational plans, 1976 to
23 2000. *Social Problems* 53, 186-206.

- 1 *Rice, K. G., & Ashby, J. S. (2007). An efficient method for classifying
2 perfectionists. *Journal of Counseling Psychology, 54*, 72-58.
- 3 Rice, K. G., Ashby, J. S., & Slaney, R. B. (1998). Self-esteem as a mediator between
4 perfectionism and depression: A structural equations analysis. *Journal of Counseling
5 Psychology, 45*, 304-314.
- 6 *Rice, K. G., Ashby, J. S., & Slaney, R. B. (2007). Perfectionism and the five-factor
7 model of personality. *Assessment, 14*, 385-398.
- 8 *Rice, K. G., Lopez, F. G., & Vergara, D. (2005). Parental/social influences on
9 perfectionism and adult attachment orientations. *Journal of Social and Clinical Psychology, 24*,
10 580-605.
- 11 Rogers, C. (1951). *Client centered therapy*. Boston: Houghton-Mifflin.
- 12 Rosenbaum, J. (2001). *Beyond college for all*. New York: Russell Sage.
- 13 Rosnow, R. L., & Rosenthal, R. (2008). Assessing the effect size of outcome research. In
14 A. M. Nezu & C. M. Nezu (Eds.), *Evidence-based outcome research: A practical guide to
15 conducting randomized controlled trials for psychosocial interventions* (pp. 379 – 401). New
16 York, NY: Oxford University Press.
- 17 Scott, K., Martin, D. M., & Schouten, J. W. (2014). Marketing and the new
18 materialism. *Journal of Macromarketing, 34*, 282-290.
- 19 Sevilla, A., & Borra, C. (2015). *Parental time investments in children: The role of
20 competition for university places in the UK*. Bonn: Institute for the Study of Labor. Available at:
21 <http://ftp.iza.org/dp9168.pdf>. Accessed January 20, 2017.

- 1 *Shafran, R., Lee, M., Payne, E., & Fairburn, C. G. (2006). The impact of manipulating
2 personal standards on eating attitudes and behaviour. *Behaviour Research and Therapy*, *44*, 897-
3 906.
- 4 *Sherry, S. B., & Hall, P. A. (2009). The perfectionism model of binge eating: tests of an
5 integrative model. *Journal of Personality and Social Psychology*, *96*, 690-709.
- 6 *Sherry, S. B., Hewitt, P. L., Besser, A., Flett, G. L., & Klein, C. (2006).
7 Machiavellianism, trait perfectionism, and perfectionistic self-presentation. *Personality and*
8 *individual differences*, *40*, 829-839.
- 9 *Sherry, S. B., Hewitt, P. L., Flett, G. L., & Harvey, M. (2003). Perfectionism
10 dimensions, perfectionistic attitudes, dependent attitudes, and depression in psychiatric patients
11 and university students. *Journal of Counseling Psychology*, *50*, 373-386.
- 12 *Sherry, S. B., Hewitt, P. L., Lee-Bagglely, D. L., Flett, G. L., & Besser, A. (2004).
13 Perfectionism and Thoughts About Having Cosmetic Surgery Performed¹. *Journal of Applied*
14 *Biobehavioral Research*, *9*, 244-257.
- 15 *Sherry, S. B., Law, A., Hewitt, P. L., Flett, G. L., & Besser, A. (2008). Social support as
16 a mediator of the relationship between perfectionism and depression: A preliminary test of the
17 social disconnection model. *Personality and Individual Differences*, *45*, 339-344.
- 18 Sherry, S. B., Mackinnon, S. P., & Gautreau, C. M. (2016). Perfectionists don't play
19 nicely with others: Expanding the social disconnection model. In F. M. Sirois & D. S. Molnar
20 (Eds.), *Perfectionism, health, and well-being* (pp. 225–243). New York: Springer.
- 21 *Sherry, D. L., Sherry, S. B., Hewitt, P. L., Mushquash, A., & Flett, G. L. (2015). The
22 existential model of perfectionism and depressive symptoms: Tests of incremental validity,

1 gender differences, and moderated mediation. *Personality and Individual Differences*, 76, 104-
2 110.

3 *Sherry, S. B., Stoeber, J., & Ramasubbu, C. (2016). Perfectionism explains variance in
4 self-defeating behaviors beyond self-criticism: Evidence from a cross-national
5 sample. *Personality and Individual Differences*, 95, 196-199.

6 *Sherry, S. B., Vriend, J. L., Hewitt, P. L., Sherry, D. L., Flett, G. L., & Wardrop, A. A.
7 (2009). Perfectionism dimensions, appearance schemas, and body image disturbance in
8 community members and university students. *Body Image*, 6, 83-89.

9 Shierholz, H. & Mishel, L. (2013). *A Decade of Flat Wages*. Washington, DC: Economic
10 Policy Institute. Available at: [http://www.epi.org/publication/a-decade-of-flat-wages-the-key-
11 barrierto-shared-prosperity-and-a-rising-middle-class/](http://www.epi.org/publication/a-decade-of-flat-wages-the-key-barrierto-shared-prosperity-and-a-rising-middle-class/). Accessed January 20, 2017.

12 *Short, M. M. (2015). *Adaptive and Maladaptive Outcomes of Perfectionism and
13 Changes After Mindfulness Training*. Unpublished doctoral thesis: Lakehead University.

14 Slaney, R. B., Rice, K. G., Mobley, M., Trippi, J., & Ashby, J. S. (2001). The revised
15 almost perfect scale. *Measurement and Evaluation in Counseling and Development*, 34, 130-145.

16 Smink, F. R., Van Hoeken, D., & Hoek, H. W. (2012). Epidemiology of eating disorders:
17 incidence, prevalence and mortality rates. *Current Psychiatry Reports*, 14, 406-414.

18 *Smith, M. M., Saklofske, D. H., & Nordstokke, D. W. (2014). The link between
19 neuroticism and perfectionistic concerns: The mediating effect of trait emotional
20 intelligence. *Personality and Individual Differences*, 61, 97-100.

21 *Smith, M. M., Saklofske, D. H., Yan, G., & Sherry, S. B. (2015). Perfectionistic
22 strivings and perfectionistic concerns interact to predict negative emotionality: Support for the

1 tripartite model of perfectionism in Canadian and Chinese university students. *Personality and*
2 *Individual Differences, 81*, 141-147.

3 *Smith, M. M., Saklofske, D. H., Yan, G., & Sherry, S. B. (2016). Cultural similarities in
4 perfectionism: Perfectionistic strivings and concerns generalize across Chinese and Canadian
5 groups. *Measurement and Evaluation in Counseling and Development, 49*, 63-76.

6 Smith, M. M., Sherry, S. B., Chen, S., Saklofske, D. H., Mushquash, C., Flett, G. L., &
7 Hewitt, P. L. (in press). The perniciousness of perfectionism: A meta-analytic review of the
8 perfectionism-suicide relationship. *Journal of Personality*.

9 *Smith, M. M., Sherry, S. B., Gautreau, C. M., Mushquash, A. R., Saklofske, D. H., &
10 Snow, S. L. (2017). The intergenerational transmission of perfectionism: Fathers' other-oriented
11 perfectionism and daughters' perceived psychological control uniquely predict daughters' self-
12 critical and personal standards perfectionism. *Personality and Individual Differences, 119*, 242-
13 248.

14 Smith, M. M., Sherry, S. B., Rnic, K., Saklofske, D. H., Enns, M., & Gralnick, T. (2016).
15 Are Perfectionism Dimensions Vulnerability Factors for Depressive Symptoms After Controlling
16 for Neuroticism? A Meta-analysis of 10 Longitudinal Studies. *European Journal of*
17 *Personality, 30*, 201-212.

18 *Smith, M. M., Speth, T. A., Sherry, S. B., Saklofske, D. H., Stewart, S. H., & Glowacka,
19 M. (2017). Is socially prescribed perfectionism veridical? A new take on the stressfulness of
20 perfectionism. *Personality and Individual Differences, 110*, 115-118.

21 Soenens, B., & Vansteenkiste, M. (2010). A theoretical upgrade of the concept of
22 parental psychological control: Proposing new insights on the basis of self-determination
23 theory. *Developmental Review, 30*, 74-99.

1 Soenens, B., Wuyts, D., Vansteenkiste, M., Mageau, G. A., & Brenning, K. (2015).
2 Raising trophy kids: The role of mothers' contingent self-esteem in maternal promotion of
3 extrinsic goals. *Journal of Adolescence*, *42*, 40-49.

4 Statistics Canada (2012). *Canada at a Glance 2012*. Available at:
5 <http://www.statcan.gc.ca/pub/12-581-x/12-581-x2012000-eng.pdf>. Accessed January 20, 2017.

6 *Steinwert, M. L. (2017). *The perfection student: How perfectionism and motivation*
7 *influence academic outcomes and well-being*. Unpublished masters thesis: California State
8 University.

9 Stoeber, J. (2014). How other-oriented perfectionism differs from self-oriented and
10 socially prescribed perfectionism. *Journal of Psychopathology and Behavioral Assessment*, *36*,
11 329-338.

12 *Stoeber, J., & Childs, J. H. (2010). The assessment of self-oriented and socially
13 prescribed perfectionism: Subscales make a difference. *Journal of personality assessment*, *92*,
14 577-585.

15 *Stoeber, J., & Corr, P. J. (2015). Perfectionism, personality, and affective experiences:
16 New insights from revised Reinforcement Sensitivity Theory. *Personality and Individual*
17 *Differences*, *86*, 354-359.

18 *Stoeber, J., & Corr, P. J. (2016). A short empirical note on perfectionism and
19 flourishing. *Personality and Individual Differences*, *90*, 50-53.

20 *Stoeber, J., & Corr, P. J. (2017). Perfectionism, personality, and future-directed
21 thinking: Further insights from revised Reinforcement Sensitivity Theory. *Personality and*
22 *Individual Differences*, *105*, 78-83.

- 1 *Stoeber, J., & Diedenhofen, B. (2017). Multidimensional perfectionism and
2 counterfactual thinking: Some think upward, others downward. *Personality and Individual*
3 *Differences, 119*, 118-121.
- 4 Stoeber, J., & Otto, K. (2006). Positive conceptions of perfectionism: Approaches,
5 evidence, challenges. *Personality and Social Psychology Review, 10*, 295-319.
- 6 *Stoeber, J., Feast, A. R., & Hayward, J. A. (2009). Self-oriented and socially prescribed
7 perfectionism: Differential relationships with intrinsic and extrinsic motivation and test
8 anxiety. *Personality and Individual Differences, 47*, 423-428.
- 9 *Stoeber, J., Haskew, A. E., & Scott, C. (2015). Perfectionism and exam performance:
10 The mediating effect of task-approach goals. *Personality and Individual Differences, 74*, 171-
11 176.
- 12 *Stoeber, J., & Hotham, S. (2016). Perfectionism and attitudes toward cognitive
13 enhancers (“smart drugs”). *Personality and Individual Differences, 88*, 170-174.
- 14 *Stoeber, J., Kempe, T., & Keogh, E. J. (2008). Facets of self-oriented and socially
15 prescribed perfectionism and feelings of pride, shame, and guilt following success and
16 failure. *Personality and Individual Differences, 44*, 1506-1516.
- 17 *Stoeber, J., Kobori, O., & Tanno, Y. (2013). Perfectionism and self-conscious emotions
18 in British and Japanese students: Predicting pride and embarrassment after success and
19 failure. *European Journal of Personality, 27*, 59-70.
- 20 *Stoeber, J., Madigan, D. J., Damian, L. E., Esposito, R. M., & Lombardo, C. (in press).
21 Perfectionism and eating disorder symptoms in female university students: the central role of
22 perfectionistic self-presentation. *Eating and Weight Disorders-Studies on Anorexia, Bulimia and*
23 *Obesity*.

- 1 *Stoeber, J., Mutinelli, S., & Corr, P. J. (2016). Perfectionism in students and positive
2 career planning attitudes. *Personality and Individual Differences*, *97*, 256-259.
- 3 *Stoeber, J., Noland, A. B., Mawenu, T. W., Henderson, T. M., & Kent, D. N. (2017).
4 Perfectionism, social disconnection, and interpersonal hostility: Not all perfectionists don't play
5 nicely with others. *Personality and Individual Differences*, *119*, 112-117.
- 6 *Stoeber, J., Schneider, N., Hussain, R., & Matthews, K. (2014). Perfectionism and
7 negative affect after repeated failure. *Journal of Individual Differences*, *35*, 87-94.
- 8 *Stoeber, J., Sherry, S. B., & Nealis, L. J. (2015). Multidimensional perfectionism and
9 narcissism: Grandiose or vulnerable? *Personality and Individual Differences*, *80*, 85-90.
- 10 *Sturman, E. D., Flett, G. L., Hewitt, P. L., & Rudolph, S. G. (2009). Dimensions of
11 perfectionism and self-worth contingencies in depression. *Journal of Rational-Emotive &*
12 *Cognitive-Behavior Therapy*, *27*, 213-231.
- 13 *Suddarth, B. H., & Slaney, R. B. (2001). An investigation of the dimensions of
14 perfectionism in college students. *Measurement and Evaluation in Counseling and*
15 *Development*, *34*, 157-165.
- 16 Tabachnick, B.G. & Fidell, L.S. (2007). *Using Multivariate Statistics* (5th ed.). New
17 York, NY: Allyn and Bacon.
- 18 Thomas, C. (2015). Generation Y And Plastic Surgery: The Rise Of Cosmetic Procedures
19 Among Canada's Millennial Generation. *Huffington Post Online*, 01 September. Available at:
20 http://www.huffingtonpost.ca/2012/12/12/generation-y-plastic-surgery_n_2277633.html.
21 Accessed January 20, 2017.
- 22 Thompson, S. G., & Sharp, S. J. (1999). Explaining heterogeneity in meta-analysis: a
23 comparison of methods. *Statistics in medicine*, *18*, 2693-2708.

- 1 Thompson, C. M., & Durrani, A. J. (2007). An increasing need for early detection of
2 body dysmorphic disorder by all specialties. *Journal of the Royal Society of Medicine*, *100*, 61-
3 62.
- 4 *Tissot, A. M., & Crowther, J. H. (2008). Self-oriented and socially prescribed
5 perfectionism: Risk factors within an integrative model for bulimic symptomatology. *Journal of*
6 *Social and Clinical Psychology*, *27*, 734-755.
- 7 Tozzi, F., Aggen, S. H., Neale, B. M., Anderson, C. B., Mazzeo, S. E., Neale, M. C., &
8 Bulik, C. M. (2004). The structure of perfectionism: A twin study. *Behavior Genetics*, *34*, 483-
9 494.
- 10 Twenge, J. M. (2000). The age of anxiety? The birth cohort change in anxiety and
11 neuroticism, 1952–1993. *Journal of Personality and Social Psychology*, *79*, 1007–1021.
- 12 Twenge, J. M. (2001a). Birth cohort changes in extraversion: A cross-temporal meta-
13 analysis, 1966–1993. *Personality and Individual Differences*, *30*, 735-748.
- 14 Twenge, J. M. (2001b). Changes in women's assertiveness in response to status and roles:
15 A cross-temporal meta-analysis, 1931–1993. *Journal of Personality and Social Psychology*, *81*,
16 133-145.
- 17 Twenge, J. M. (2014). *Generation Me: Why today's young Americans are more*
18 *confident, assertive, entitled and more miserable than ever before* (2nd ed.). New York, NY:
19 Atria.
- 20 Twenge, J. M., Campbell, W. K., & Gentile, B. (2012). Generational increases in agentic
21 self-evaluations among American college students, 1966–2009. *Self and Identity*, *11*, 409-427.

- 1 Twenge, J. M., Konrath, S., Foster, J. D., Keith Campbell, W., & Bushman, B. J. (2008).
2 Egos inflating over time: a cross-temporal meta-analysis of the Narcissistic Personality
3 Inventory. *Journal of Personality, 76*, 875-902.
- 4 Verhaeghe, P. (2014). *What about Me? The Struggle for Identity in a Market-based*
5 *Society*. London: Scribe Publications.
- 6 *Verner-Filion, J., & Gaudreau, P. (2010). From perfectionism to academic adjustment:
7 The mediating role of achievement goals. *Personality and Individual Differences, 49*, 181-186.
- 8 Viechtbauer, W. (2010). Conducting Meta-Analyses in R with the metafor Package.
9 *Journal of Statistical Software, 36*, 1-48.
- 10 *Vieth, A. Z., & Trull, T. J. (1999). Family patterns of perfectionism: An examination of
11 college students and their parents. *Journal of Personality Assessment, 72*, 49-67.
- 12 Wade, T. D., & Bulik, C. M. (2007). Shared genetic and environmental risk factors
13 between undue influence of body shape and weight on self-evaluation and dimensions of
14 perfectionism. *Psychological medicine, 37*, 635-644.
- 15 *Walsh, J. J., & Ugumba-Agwunobi, G. (2002). Individual differences in statistics
16 anxiety: the roles of perfectionism, procrastination and trait anxiety. *Personality and Individual*
17 *Differences, 33*, 239-251.
- 18 *Weishuhn, A. S. (2006). *Perfectionism, self-discrepancy, and disordered eating in black*
19 *and white women*. Unpublished doctoral thesis: University of Missouri—Columbia.
- 20 *Westra, H. A. (1993). *Cognitive Profiles of Psychological Maladjustment*. Unpublished
21 doctoral thesis: University of Western Ontario.
- 22 Wilder, J. (1967). *Stimulus and Response: The Law of Initial Value*. Bristol: John Wright
23 & Sons Limited.

1 *Williams, N. M. (2009). *The Moderating Effects of Perfectionism and Ethnic Identity on*
2 *the Relationship Between Sociocultural Pressure and Body Dissatisfaction*. Unpublished
3 doctoral dissertation: Kent State University.

4 World Health Organization (2017). *Depression and Other Common Mental Disorders:*
5 *Global Health Estimates*. Geneva: WHO. Available at:
6 <http://apps.who.int/iris/bitstream/10665/254610/1/WHO-MSD-MER-2017.2-eng.pdf?ua=1>.
7 Accessed June 20, 2017.

8 *Wyatt, R., & Gilbert, P. (1998). Dimensions of perfectionism: A study exploring their
9 relationship with perceived social rank and status. *Personality and Individual Differences*, 24,
10 71-79.

11 *Xie, D., Leong, F. T., & Feng, S. (2008). Culture-specific personality correlates of
12 anxiety among Chinese and Caucasian college students. *Asian Journal of Social Psychology*, 11,
13 163-174.

14 Zweig, D. (2015). *Invisibles: The Power of Anonymous Work in an Age of Relentless*
15 *Self-promotion*. New York: Penguin.

16

17

18

19

20

21

22

23

24

25

26

27

28

29

30

1
2
3
4
5
6
7
8
9
10
11

Table 1.
Descriptive statistics and distributional properties of study variables

Variables	<i>k_{means}</i>	<i>N</i>	<i>M</i>	<i>SD</i>	Range
<i>Perfectionism</i>					
Self-oriented perfectionism	155	39,404	4.60	.20	3.93-5.22
Socially prescribed perfectionism	158	40,552	3.60	.21	3.06-4.18
Other-oriented perfectionism	102	24,370	3.85	.17	3.31-4.23
<i>Country</i>					
US	55 (33.54%)	14,134			
Canada	80 (48.78%)	20,550			
UK	29 (17.68%)	6,957			
<i>Gender</i>					
Female %	164	41,641	70.92	18.11	0.00-100.00

12 *Note: N = sample size; M = mean; SD = standard deviation.*

13
14
15
16
17

Table 2.
Summary of inverse variance-weighted metaregression results with controls included

	Self-oriented perfectionism (<i>k</i> = 155)									Socially prescribed perfectionism (<i>k</i> = 158)									Other-oriented perfectionism (<i>k</i> = 102)									
	Model 1			Model 2			Model 3			Model 1			Model 2			Model 3			Model 1			Model 2			Model 3			
	<i>b</i>	<i>SE</i>	β	<i>b</i>	<i>SE</i>	β	<i>b</i>	<i>SE</i>	β	<i>b</i>	<i>SE</i>	β	<i>b</i>	<i>SE</i>	β	<i>b</i>	<i>SE</i>	β	<i>b</i>	<i>SE</i>	β	<i>b</i>	<i>SE</i>	β	<i>b</i>	<i>SE</i>	β	
<i>Birth cohort</i>																												
Time	.004	.002	.14	.004*	.002	.17	.004*	.002	.17	.01**	.002	.45	.01**	.002	.49	.01**	.002	.50	.002	.002	.11	.005*	.002	.23	.005*	.002	.23	
<i>Country^a</i>																												
USA				.08*	.04	.20	.09*	.04	.19				-.10**	.03	-.23	-.10**	.03	-.23				.07*	.03	.21	.07*	.04	.21	
UK				-.04	.05	-.07	-.04	.04	-.07				-.06	.05	-.12	-.06	.05	-.11				-.12**	.05	-.28	-.12**	.05	-.28	
<i>Gender</i>																												
% female							-.0003	.001	-.02							-.001	.001	-.07							-.0004	.001	-.04	
<i>Model statistics</i>																												
<i>Q</i> _{model} (<i>df</i>)		3.13(1)			12.21(3)**			12.45(4)**			40.87(1)**			53.22(3)**			54.12(4)**			1.19(1)			20.62(3)**			20.76(4)**		
<i>Q</i> _{residual} (<i>df</i>)		156.08(153)			153.93(151)			153.07(150)			156.08(156)			155.14(154)			154.24(153)			104.36(100)			104.65(98)			104.03(97)		
<i>R</i> ²		.02			.07			.07			.21			.26			.26			.01			.16			.17		
τ^2 (<i>SE</i>)		.03(.004)			.03(.004)			.03(.004)			.03(.004)			.03(.004)			.03(.004)			.02(.004)			.02(.003)			.02(.003)		
<i>I</i> ²		89.21			88.66			88.66			91.32			90.77			90.70			92.19			90.53			90.58		

^aThe comparison group for the country covariate was Canada.
p < .05*, *p* < .01**

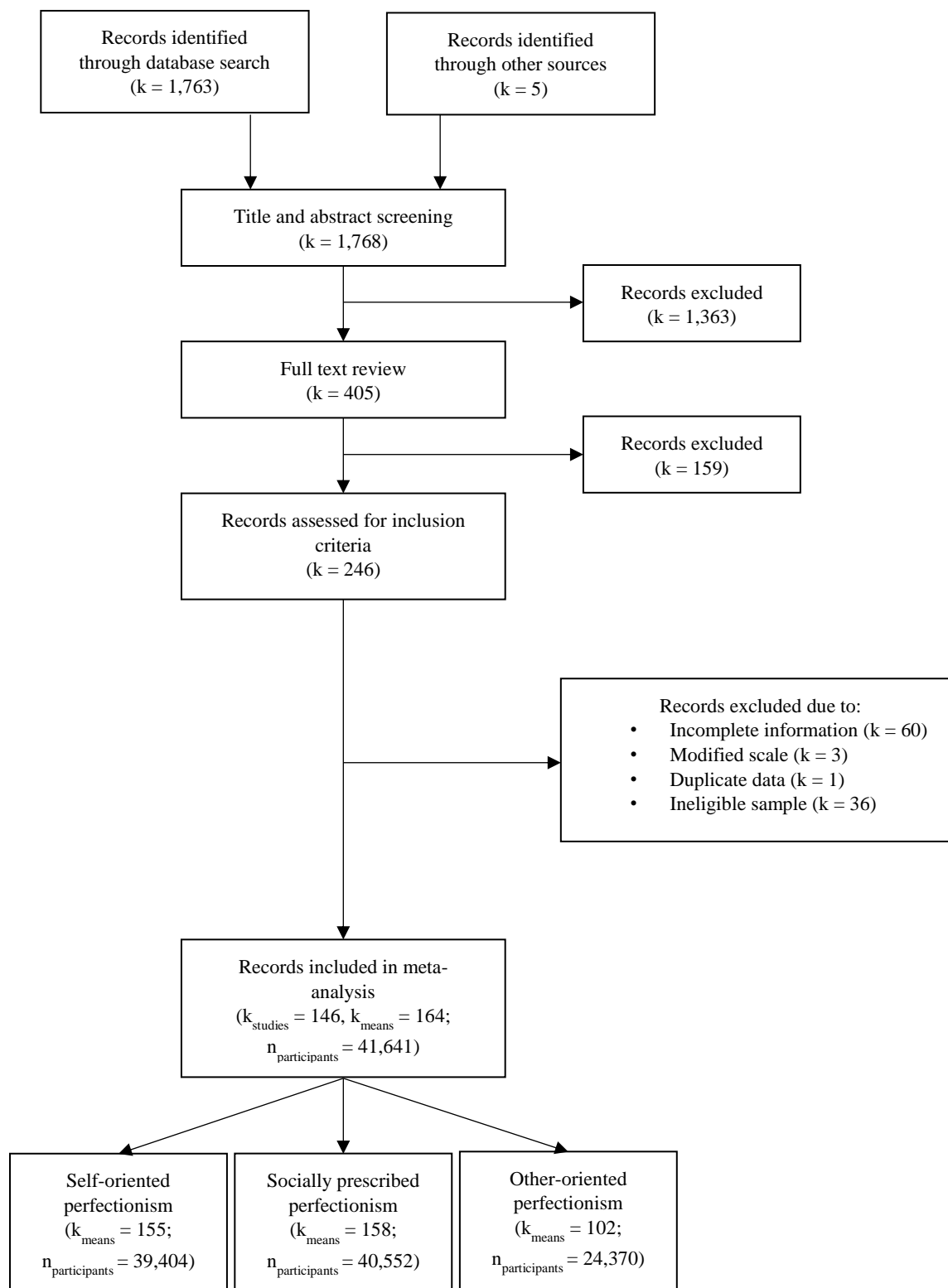


Figure 1. PRISMA flow diagram for the literature search.

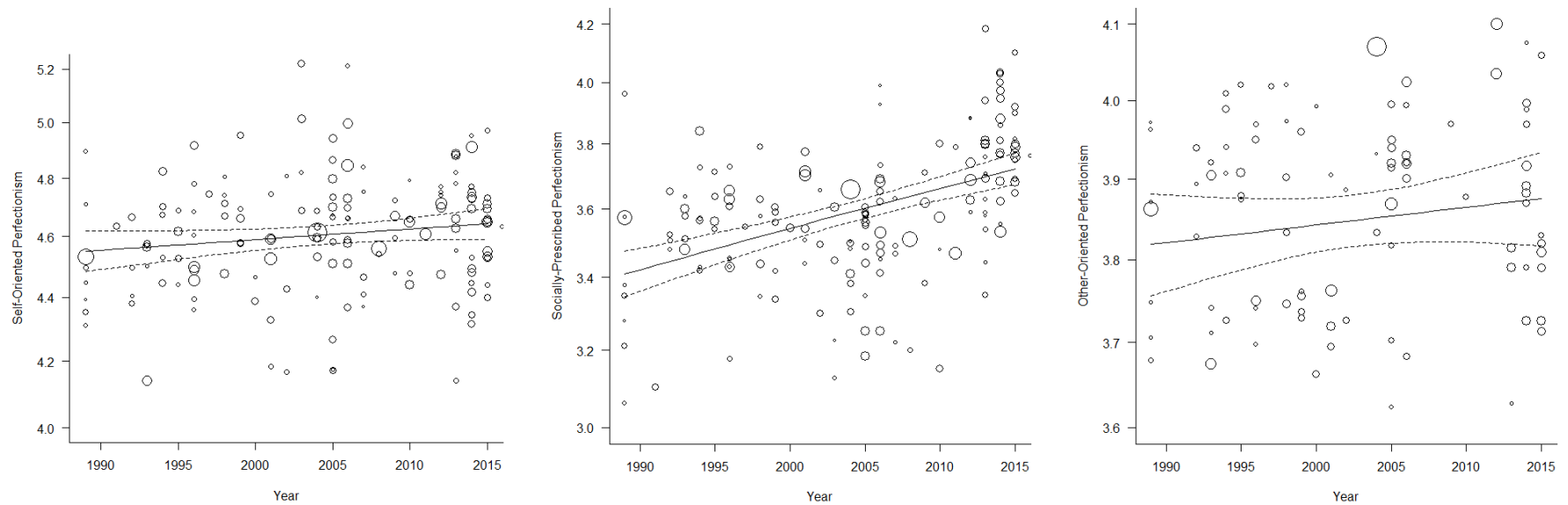


Figure 2. Multidimensional Perfectionism Scale subscale scores plotted against year of data collection.

Note. The solid regression line is plotted through the predicted perfectionism values from the metaregression equation in Model 1. Data-points represent study means and the size of the data-point is proportional to study (inverse variance) weighting. The dashed lines depict the upper and lower limits of the 95% confidence interval for the predicted values.