

Empathy and Authenticity Online: The Roles of Moral Identity, Moral Disengagement and Parenting Style

Abstract

Research suggests that the internet could be considered an arena for both virtuous and vicious behaviors, with observations of enhanced perspective-taking and honest self-reflections occurring alongside evidence of cyberbullying and deceptive communications. In the current study, we explore the role of three widely recognized sources of moral behavior - moral identity, moral disengagement and authoritative parenting – in predicting adolescents' online empathy and online authenticity. Seven-hundred-and-eighty-eight UK adolescents aged 11-18 years (66% male) completed measures of these key constructs. Structural equation modelling results suggest that parental responsiveness and autonomy granting are positively related to adolescents' moral identity. In turn, moral identity was positively related to both online empathy and online authenticity. Having a stronger moral identity also meant that adolescents were less likely to morally disengage, and moral disengagement was negatively related to online authenticity in adolescent females. Partial invariance across gender and age was observed. The findings indicate that moral identity encourages moral thoughts, feelings and actions in the online environment, including being authentic and empathic. As the formation and accessibility of one's moral identity can be promoted, we discuss the implications of these findings for cultivating prosocial behavior in the online environment as well as future research avenues.

Key words: Empathy, Authenticity, Moral Identity, Moral Disengagement, Authoritative Parenting, Internet Use, Social Media

Introduction

Young people are avid internet users, and large-scale international studies have evidenced intense social media usage in this population (Craig et al., 2020). Recent reports suggest that 99 percent of 12-15 year olds in the UK go online, for up to 21 hours per week (Ofcom, 2019). The majority of this time appears to be spent on social media platforms, with 70% of 12-15 year olds having a social media profile (Ofcom, 2020). Not surprisingly, therefore, a vast research base now exists on the impact of online interactions in this population, with transnational evidence supporting both positive and negative effects of such internet and social media usage. On the one hand, social media use has been positively linked to social connectedness and feelings of belonging in adolescents, whereby social media platforms can facilitate new and ongoing relationships and strengthen social bonds (Allen et al., 2014). Conversely, the phenomenon of 'FOMO', or fear of missing out, describes a social compulsion to stay up-to-date with what is happening online and has been negatively associated with emotional wellbeing and sleep in adolescents (Fabris, Marengo, Longobardi & Settanni, 2020; Scott & Woods, 2018).

When appraising their children's internet use, parents are increasingly unlikely to view the benefits of internet use as outweighing the risks (65% in 2015 vs. 55% in 2019, Ofcom, 2020), and fifty-five percent of 1,738 UK parents considered social media to hinder or undermine a young person's character or moral development (Morgan, 2016). To date, mixed findings have been reported on the association between internet usage and moral traits, with some researchers reporting decrements in moral behaviors following social media use and others arguing for increments instead. Vallor (2010), for example, proposes that online interaction could either promote or hinder honesty in internet users. Honesty¹ has been viewed as "a willingness to put one's authentic self in play" (Vallor, 2010, p. 166), and it is argued that online communication could either foster this ability as individuals may become more disinhibited and open to self-disclosure, or hinder this authenticity through imposing self-presentation effects in its users and offering an increased ability to fake or exaggerate about oneself online (Turkle, 1995; Vallor, 2010). Harrison (2014) explored how internet usage might influence the character of 1266 11-14 year olds and found that, although a third of the sample admitted writing unkind words online, they also used the internet as a tool for compassionate behavior. Such research suggests that the internet could be considered an arena for both virtuous and vicious behaviors.

Existing studies have often sought to explain online behavior by the amount of time spent online, rather than considering the mechanisms or processes that encourage or discourage moral behaviors in online settings. Moreover, studies on adolescent internet use often exclude the role of parents regardless of their prominent role in moral development (see, e.g., Smetana, 1999). In the current study, we focus on widely recognized sources of moral

¹ Please note that while the focus of the current study is on online authenticity, we conceptualise this as comprising considerable overlap with honesty (see 'Online Authenticity' section). Therefore, within the current paper we draw on research on both honesty and authenticity. We use the term "honesty" where this has been used by the cited authors.

behavior (moral identity, moral disengagement and authoritative parenting) to better explain two moral behaviors (empathy and authenticity) in the online environment. Specifically, we seek to examine adolescents' self-reported degree of empathy and authenticity online and the possible processes by which these traits are encouraged or discouraged in order to provide some indication of how prosocial thoughts and behaviors might be promoted in the online environment. As we discuss below, the literature on empathy and authenticity online is currently dominated by quantifications of social media use or differences in personal attributes rather than seeking to examine their relationships to psychological constructs from the moral domain or considering external influences on moral conduct online. By offering a clear conceptualization of 'online empathy' and 'online authenticity', drawing on salient moral theory, and examining the role of parents, we aim to shed additional light on the processes by which these moral traits might be facilitated in the online world.

'Online Empathy'

Empathy has been conceptualized in many ways in the literature (Singer & Lamm, 2009), and is considered here as the ability to "vicariously experience another's emotions by recognizing, understanding, and resonating with their emotional state" (Luberto et al., 2018, p. 708). The cognitive side of empathy encompasses the ability to take others' perspectives, whilst the affective side involves the ability to viscerally experience another person's emotions (Davis, 1980; 1983; Jolliffe & Farrington, 2006). Together, these abilities enable us to "put ourselves into someone else's shoes" (Singer & Lamm, 2009, p. 82). By being able to take another's perspective and attend to their feelings and needs, it is thought that empathy motivates individuals to help others (Hoffman, 2001; Yoo et al., 2013). Hence, empathy may also underlie a number of prototypical moral virtues such as compassion and benevolence. 'Online empathy', refers to the ability to take the perspective of other internet users as well as the ability to recognize how other users are feeling - even when they are not able to observe these other users directly (Morgan, Fowers, & Kristjansson, 2017). Akin to empathy being trait-like (Davis, 1983), 'online empathy' can be considered as a disposition to think, feel and act in empathic ways online.

There are conflicting arguments as to whether internet or social media use is associated with greater or lesser empathy. On the one hand, it has been suggested that internet use is associated with less empathy as exemplified by negative online experiences such as bullying, harassment, aggression and exclusion – collectively encompassed with the term 'cyberbullying'. In a meta-analysis of cyberbullying research, Kowalski, Giumetti, Schroeder and Lattanner (2014, p. 1112) signpost a lack of empathy as an 'obvious variable' that is related to the perpetration of bullying online. It has been noted that 'cyber-aggression', in contrast to traditional aggression, requires less rationalization and justification by adolescent perpetrators (Pornari & Wood, 2010), indicating that the online environment may facilitate aggressive behaviors. Suggested enablers of adolescent cyberbullying behaviors include physical distance between users and the asynchronicity of interactions, which enables perpetrators to act

without having to see the reactions of the target (Kyriacou & Zuin, 2016); these properties of online interactions mean that cyberbullies are less likely to develop empathy towards the victim (Lazurus et al., 2013). Chan (2014) cautions that online communication might diminish individuals' empathic responses to others and warns against its excessive usage. This warning might be warranted, given the recent link between internet addiction and deficits in empathy (Jiao, Wang, Peng, Cui, 2016; Melchers et al., 2015). Jiao et al. (2017) used event-related potentials (ERP) and images of painful situations to study how individuals with internet addiction disorder (IAD) processed empathy for others' pain. By comparing reactions between individuals with IAD and controls, the authors noted that individuals in the IAD sample were less able to discriminate what would constitute pain to others, thereby providing physiological evidence of a link between internet addiction and impaired empathic responding.

Carrier et al. (2015), however, provided evidence that internet use could lead to *enhancements* in real-world empathy if this internet use leads to more face-to-face communication. Indeed, not all research supports a negative link between internet usage and empathy. In a longitudinal study, Vossen and Valkenburg (2016) found that social media use was positively related to cognitive and affective empathy over time, and Khang and Jeong (2016) detailed how individuals who report self-efficacy in their online relationships and participate in self-disclosure behaviors (e.g., publicly share their opinion) are more likely to experience empathy for others on social networking sites. The latter example is one of several studies that have indicated how the internet can facilitate empathic experiences (Khang & Jeong, 2016) and enhance "our ability to connect with others, our ability to relate to them, understand their feelings, to share their experience" (Lama & Cutler, 2009, pp. 304-305).

Gender differences have been noted within studies of online empathy. Carrier et al. (2015), for example, observed that time spent online had significant negative impacts on females' cognitive empathy offline in their sample but not for males, and Lozada and Tynes (2017) noted that general social internet use was related to longitudinal increases in empathy for adolescent girls, but not for boys. Lozada and Tynes also observed age-related differences in their study whereby relationships between internet use and offline empathic skills were more marked in middle adolescents (aged 16 – 18). The authors suggested this could be the influence of pubertal processes that lead to increased socio-affective ability in this stage of adolescence. These studies indicate the importance of considering gender and age-related differences in moral behaviors online.

'Online Authenticity'

In a similar vein to the literature on empathy, research into authenticity in online environments has indicated both positive and negative influences of internet use. Authenticity has been described as "the degree to which one is true to his or her own personality, spirit, or character, despite external pressures" (Gil-Or, Levi-Belz & Turel, 2015, p. 4). Authenticity is considered a self-relevant construct which requires being *honest with and about oneself* (Harter, 2002), and, according to Kernis and Goldman (2006), authenticity comprises behaviors that map onto one's values

and beliefs rather than having the aim of pleasing others. We conceptualize ‘online authenticity’ following Wood et al.’s (2008) concept of authentic living: congruency between one’s thoughts, beliefs, behaviors and expressions, across the online and offline world. With respect to its moral status, we postulate that online authenticity is linked to honesty, such that exhibiting online authenticity is a matter of presenting an honest and true reflection of oneself that does not mislead others (e.g., within social media profiles and posts).

There are some clear disincentives to authenticity in online interactions because individuals have more opportunity to selectively choose what information to present and have the time to carefully consider their contributions (possibly with the goal of receiving endorsements in forms such as ‘likes’, comments and re-sharing). These sorts of external pressures might, therefore, discourage online authenticity and encourage more selective and honed communications and self-disclosures. Social networking sites, for example, have been dubbed ideal settings for impression management (Kramer & Winter, 2008). Properties of the internet and social norms prevalent on social networking sites— such as a bias towards posting positively-valenced content – can lead to instances of selective and partial reflections of one’s life including exaggerations and omissions (Reinecke & Trepte, 2014). Such posts could be considered dishonest given that honest persons should avoid misleading others (Miller, 2020), and misrepresenting oneself online is considered a form of ‘online deception’ (Stanton, Ellickson-Larew & Watson, 2016).

Research suggests that online deception is commonplace (e.g., Buchanan & Whitty, 2014; Caspi & Gorsky, 2006; Ellison, Hancock, & Toma, 2011). For example, social media users engage in false self-presentation, delineated by new terms such as ‘false Facebook-selves’ (Gil-Or et al., 2015). In a study of 258 Facebook users, Gil-Or et al. noted how 7.5% of their sample demonstrated large discrepancies between an accurate self-presentation and what they chose to present on Facebook. One expectation that seems to facilitate dishonesty online is a ‘mutuality’ effect where individuals rationalize a false self-presentation “because everyone lies on the internet” (Drouin, Miller, Wehle & Hernandez, 2016, p. 141). This rationale for dishonesty has also been illustrated in qualitative responses from 10-25 year olds. James (2014) highlights case studies of ‘tweens’ (aged 10-14 years) and adolescents/young adults (aged 15-25 years) who acknowledge how the internet allows them to get away with things that they would not do in person. The discrepancy between online and offline behaviors was neatly summarized by 21-year-old Christina: “Well in real life, I’d love to do this and get away with it, but if you have any morals or have half a conscience, you’d know that you just couldn’t do that to a friend. But online you can throw all these morals and that conscience to the wind” (James, 2014, p. 75).

Motivations for social media use are an important consideration here as Utz et al. (2012) evidenced how a ‘need for popularity’ in emerging adults led to strategic self-presentations and profile enhancements with deliberate editing in order to appear more popular to others. Elsewhere, research has indicated that individuals with lower self-

esteem can be motivated to present a positive self-image online in order to receive validation and raise their level of self-esteem (Kramer & Winter, 2008), and low self-esteem has been related to greater incongruence between individuals 'true selves' and the self they present on social media (Grieve, March and Watkinson, 2020).

As early adolescence is a developmental period where young people become more concerned about how they are perceived by others (Quinn & Oldmeadow, 2013), it is perhaps unsurprising that once adolescents gain positive validations through self-presenting on social media, this can lead to a dependence on this positive feedback – a process mediated by their need for popularity (Meeus, Beullens, & Eggermont, 2019). These findings suggest that strategic self-presentations might be particularly important for, and impactful on, this age group. Indeed, in their qualitative research with adolescents, Yau and Reich (2019), observed that adolescents concerned with peer approval strategically presented themselves as interesting, attractive and popular and, in some cases, garnered help from friends in creating this positive self-image. This strategic presentation was influenced by perspective-taking abilities (i.e., considering one's audience when self-presenting) and, in line with developmental milestones, older adolescents were better able to consider others' perspectives. Gender differences in adolescents' self-presentations have also been noted in previous research, for instance, adolescent girls may be more likely to display their friendships on social media as compared to adolescent boys; a finding that has been supported across cultures (Lenhart & Madden, 2007; Sveningsson Elm, 2007). Such research signals the importance of considering gender and the period of adolescence when examining online authenticity.

Conceptually and empirically, the online environment appears to offer various moral challenges to internet users regarding empathy and authenticity, including social norms and internet properties that might serve to discourage these moral traits. Research has also indicated the importance of considering both gender and period of adolescence in studies of online empathy and online authenticity. As evidenced above, literature in these areas is dominated by quantifications of social media use or differences in general personal attributes (e.g., self-esteem, personality and self-disclosures); there is considerably less literature that has examined psychological constructs specifically from the moral domain and/or studied the psychological processes by which online empathy and authenticity might be encouraged or discouraged. When deliberating the factors that impact empathy and authenticity online, it seems pertinent to consider the processes that can explain *moral* behavior.

Moral Disengagement as a Psychological Construct that Discourages Moral Behaviors

One psychological construct that might shed light on why people engage in dishonest or unkind behaviors when online is *moral disengagement* (Bandura, 1986; Bandura et al., 1996). Bandura et al. postulated that "People do not ordinarily engage in reprehensible conduct until they have justified to themselves the rightness of their actions. What is culpable can be made righteous through cognitive reconstrual" (1996, p. 365). Eight facets of moral disengagement were put forwards to describe the various reconstruals that individuals might engage in: 1) moral

justification (the process by which detrimental behaviors are reconstrued as morally defensible); 2) euphemistic labeling (using neutral language to detract from the damage inflicted, e.g., “collateral damage”); 3) advantageous comparison (where behaviors are compared with alternate worse actions so they look better in comparison); 4) displacement of responsibility (placing the responsibility of immoral acts with an authority figure, e.g., “my boss told me to do it”); 5) diffusion of responsibility (responsibility becomes diffused across a group or collective); 6) distorting of consequences (altering the perceived effects of harmful acts so that the consequences appear less harmful); 7) dehumanization (distancing oneself from the victims of harmful acts or considering them as lacking in human qualities), and 8) attribution of blame (placing the fault with the victim or perceiving targets as deserving of immoral acts).

Moral disengagement allows an individual to act in immoral ways but retain a view of himself or herself as a ‘moral person’; this enables immoral actions without the perpetrator experiencing guilt or shame (Bandura, 1991). In offline contexts, studies have demonstrated that adolescents can disengage from their moral values and avoid moral responsibility in order to prioritize their own needs (Paciello et al., 2013). Situations may be more or less encouraging of moral disengagement. For instance, priming morality (e.g., through reading honor codes) can reduce the likelihood of moral disengagement (Aquino, Freeman, Reed, Lim & Felps, 2009). The online environment, on the other hand, may be conducive to moral disengagement as it places a physical and psychological distance between individuals, and responsibility for behavior could be diffused among its many users. Subsequently, moral disengagement has been put forward as a key component of cyberbullying in adolescence, through reducing empathy for others and encouraging hurtful behaviors online (Ang & Goh, 2010; Kyriacou & Zuin, 2016). The negative relationship between moral disengagement and offline empathy has been observed across various studies (e.g., Detert et al., 2008).

On the topic of authenticity, moral disengagement has been associated with the darker side of self-monitoring (Ogunfowora, Bourdage, Nguyen, 2013), whereby high self-monitors can be effective in lying, concealing intentions and presenting an inauthentic self (Gangestad & Snyder, 2000). A more extensive literature exists on the relationship between moral disengagement and honesty. For example, Shu, Gino and Bazerman (2011) found that offline dishonest behavior (both hypothesized and observed) was justified through moral disengagement. The results also indicated that more permissive environments for acting dishonestly will lead to greater moral disengagement than less permissive environments. Recent research has suggested that there are affordances for moral disengagement in online environments that might encourage moral disengagement mechanisms (Runions & Bak, 2015). Research has now linked moral disengagement to aggressive and unempathic behaviours online, and it is understood that particular features and norms of online interaction (such as perceived anonymity, the enhanced ability to self-monitor, and the perception that lying is commonplace) can encourage deception and disregard for

others (Drouin et al., 2016; Suler, 2004). As social media sites are, at their core, a large network of users, this may encourage individuals to view themselves as part of a wider collective where the responsibility behind actions or norms on social media are divided out between the members of that network (i.e., encouraging diffusion of responsibility). Moreover, online interactions might encourage the dehumanization of other users: ‘It is exactly because there is no face-to-face interaction with the victim that cyberbullies are much less likely to develop empathy towards their target’ (Kyriacou & Zuin, 2016, p. 35). Studies thereby suggest that some online environments encourage moral disengagement and, based on the literature above, it is reasonable to expect that individuals who morally disengage will be less likely to act in empathic and authentic ways when online.

H1: Adolescents’ moral disengagement will be negatively associated with online empathy and online authenticity².

Moral Identity as a Psychological Construct that Encourages Moral Behaviors

The degree to which morality or moral traits such as empathy and authenticity are important to one’s self-concept has been termed one’s ‘moral identity’ (Hardy & Carlo, 2005). Moral identity has a self-regulatory function that helps an individual to act in accordance with his or her self-concept, therefore, the stronger one’s moral identity, the less likely one will engage in immoral or antisocial behaviors. Unsurprisingly then, research has demonstrated that moral identity is negatively associated with antisocial behaviors such as aggression and rule breaking (Hardy, Bean & Olsen, 2015), and positively predicts helping and concern for others, and moral values such as empathy and honesty (Hardy, Bhattacharjee, Reed & Aquino, 2010; Hardy, Walker, Rackham & Olsen, 2012; Hardy, Walker, Olsen, Woodbury, & Hickman, 2014; Mulder & Aquino, 2013).

Aquino et al. (2009) understood moral identity as a schema that is more or less accessible, depending both on its strength and on situational influences. Some situational factors (e.g., primed self-interest or the dishonesty of others) have been found to decrease the accessibility of moral identity, even among individuals with strong moral identity. One environment where situational factors might decrease the accessibility of moral identity is the internet. As reviewed in the various sections above, the internet – or social media sites in particular – have been linked to unkind behaviors and inauthentic representations or self-promotions. As suggested in Aquino et al. (2009, p. 126), ‘Situational factors that activate (or prime) a self-interested facet of identity should increase the accessibility of this type of identity, thereby decreasing the accessibility of the moral self-schema’; this might go some way to explaining the apparent high degree of self-promotion and low degree of empathy on social media sites. It is possible that frequent inauthentic self-presentations and lack of empathy could even become habitual, wherein these schemas might become regularly (or even automatically) activated when the same situation or environment is encountered (Aquino et al., 2009).

² Because moral disengagement is a process believed to be enacted proximally to moral situations, we consider moral disengagement as the most proximal predictor of online empathy and online authenticity (see Figure 1).

The degree that morality is central to an individual's self-concept will influence their propensity to engage in immoral (or conversely moral) behaviors, with research having indicated that individuals – including adolescents – differ in the degree to which they identify with moral characteristics (e.g., Walker, Pitts, Hennig & Matsuba (1995). The key developmental period for the emergence of moral identity is thought to be adolescence, where moral understanding tends to become more interpersonal and prosocial and, during the same period, adolescents explore their possible identities and what this means for social interaction and social groups (see Hardy & Carlo, 2005, 2011). Moral identity appears to develop throughout the period of adolescence with research indicating that by early adolescence young people's self-descriptions show a concern for others, and by middle-to-late adolescence moral values have become integrated into their self-concept (Damon & Hart, 1988, pp. 117–122). Adolescents for whom moral traits are an important part of their identity are likely to feel, think and act in ways that uphold their moral commitments. This consistency should also hold true in the online world. If the translation of moral identity into moral cognition, affect and action holds true, we expect moral identity to encourage moral thoughts, feelings and behaviors when online.

H2: Adolescent moral identity will correlate positively with empathic and authentic behavior online.

Researchers have observed a negative relationship between moral disengagement and moral identity across multiple contexts (Aquino, Reed, Thau & Freeman, 2007; Detert et al., 2008; Hardy et al., 2015; He & Harris, 2014). Detert et al. (2008) found that moral identity was an antecedent of moral disengagement and, in a study of 438 Chinese adolescents, Wang et al. (2020) observed that moral identity moderated the relationship between moral disengagement and cyberbullying. These studies thereby suggest that moral identity will function to discourage moral disengagement.

H3: Adolescent moral identity will be positively linked to online empathy and online authenticity indirectly through dampening the effects of moral disengagement³.

The Role of Parents

The development of moral identity in adolescence is influenced by parenting styles and behaviors. For example, 'authoritative' and 'positive' parenting have been related to moral identity formation and the internalization of moral values (Patrick & Gibbs, 2012; Hardy, Padilla-Walker & Carlo, 2008). Authoritative parenting (one of Baumrind's (1971, 1978) original classifications of parenting style) has been described as being demanding, responsive and autonomy-granting. These characteristics have, in turn, been associated with the development of moral reasoning (Boyes & Allen, 1993), moral traits including empathy (Yoo et al., 2013), and the internalisation of moral values

³ Because moral identity is a dispositional variable, we consider this as anterior to moral disengagement (see Figure 1).

(Grolnick, Deci & Ryan, 1997). Hardy and colleagues (2010) further note how authoritative parenting is positively related to moral identity formation.

A warm and responsive parent-child relationship, as described by authoritative parenting, has been linked to children's moral compliance and, in turn, internalization of moral values (Kochanska, 2002). Hardy et al. (2008) examined the internalization of moral values in adolescents in relation to three parenting dimensions of involvement (otherwise called responsiveness), autonomy support, and structure (or demandingness). The researchers found that parental involvement/responsiveness was related to greater internalization of moral values including honesty, kindness and fairness in adolescents. As parents play an important role in socialization processes, it is perhaps unsurprising that positive parenting styles have also been (negatively) related to moral disengagement (Pelton, Gound, Forehand & Brody, 2004), with rejecting parenting positively associated with moral disengagement (Hyde, Shaw & Moilanen, 2010). The above studies on parental influence indicate that parents continue to be an important source of moral behavior into adolescence, and that moral traits and behaviors are associated with authoritative parenting *through* moral identity. We expect the influence of parenting on moral disengagement, online empathy and authenticity behavior to be indirect, inasmuch as parents generally do not monitor online behavior closely, as noted by extensive ethnographic research (Turkle, 2015). Nevertheless, research indicates that parents have a role in the development of their child's moral identity, which is related to moral disengagement and online empathy and authenticity.

H4: Authoritative parenting will be associated with online empathy and online authenticity indirectly through moral identity and moral disengagement.

The Current Study

In sum, this study explores the roles of moral identity, moral disengagement and authoritative parenting in accounting for adolescents' online empathy and online authenticity. Examining these hypothesized relationships will provide new information about the processes by which empathy and authenticity can be encouraged or discouraged online. Given that scholars believe that moral identity can be promoted and encouraged (Hardy et al., 2008), finding evidence for the role of moral identity in encouraging moral behaviors online (or, equally, discouraging immoral behaviors) would indicate a possible route for the promotion of moral thoughts and behaviors online. In addition, finding evidence for the role of moral disengagement in discouraging moral behaviors would signal the importance of identifying ways to reduce that disengagement.

Gender and/or age-related differences have been observed in online empathy, online authenticity and moral disengagement. As these findings are inconsistent, no specific hypotheses regarding gender or age are proposed here. The existence of gender and age effects, however, signals the need for invariance testing across male and

female, and younger and older adolescent participants regarding moral attributes and online moral behaviors. The model being tested in this study can be observed in Figure 1.

[Insert Figure 1 here]

Method

Participants

Eight-hundred-and-thirty-four secondary school students completed this online questionnaire. Of these respondents, 788 passed integrity checks⁴ and were included in the analysis. Participants were aged between 11 and 18 years (mean age = 14 years) and came from five schools across the UK: School A was a boy's grammar school in Warwickshire (N = 102); School B was a boy's grammar school in Buckinghamshire (N = 118); School C was a co-educational secondary school in Suffolk (N = 243); School D was a co-educational comprehensive school in South-East England (N = 43); School E was a co-educational secondary school in Devon (N = 282).

The sample was comprised of 519 males (66%) and 192 females with 77 individuals declining to report their sex. In terms of ethnicity, 84% were White British and 3.2% were Asian British Indian. For religious identification, 20% identified as Christian and 43% as atheists, 19% answered 'don't know'. Of those who identified a religious identity, only 9% reported practicing their religion regularly.

Measures

Moral Identity. The latent variable *moral identity* was estimated using two scales and a single-item indicator. The first observed measure, the Moral Self-Relevance Scale ($\alpha = .83$, Patrick & Gibbs, 2008; 2012), includes 8 Likert scale items and a 'moral qualities' task which, together, examine the importance of moral traits to one's self-concept⁵. The Likert items ask participants to rate the importance of eight moral traits using a scale ranging from 1 = *not important to me* to 5 = *extremely important to me*. In the second component of this scale, participants are presented with a list of 32 traits, eight of are moral traits (such as honest, fair and generous) and 24 are personality traits (such as organized, funny and independent). In response to this list, participants were asked to 'pick the 8 qualities that you think are MOST extremely important to you as a person'. A score of one is given for each moral trait selected within these eight qualities (ranging from 0-8). An average from the Likert responses are summed with the score for moral qualities to produce the Moral Self-Relevance score. The descriptive statistics and alpha reliabilities for this study are found in Table 1.

⁴ 'Integrity checks' refer to the inclusion of two questionnaire items that tested whether participants were reading the questions accurately throughout. E.g., "To show that you are reading the questions in this online questionnaire, all you have to do here is simply choose the 'Agree' option from the list below".

⁵ The original scale also includes a number of additional Likert items to explore personality traits which were not included in this study.

The second observed measure of moral identity was the five-item Moral Contingencies of Self-Worth scale⁶ ($\alpha = .83$, Crocker *et al.*, 2003). These items gauge the importance of virtuous living for one's self-esteem and are rated on a 7-point scale ranging from 1 = *strongly disagree* to 7 = *strongly agree*; for example, "My self-esteem depends on whether or not I follow my moral/ethical principles". An average score for items (ranging from 1 – 7) was calculated for this scale.

The final observed measure of moral identity is a single item measuring the importance of values and moral standards to one's identity, taken from the Moral Aspects of Identity scale (Cheek, Smith & Tropp, 2002). The item is answered using a scale ranging from 1 = *not at all important to my sense of who I am* to 5 = *extremely important to my sense of who I am*. All measures employed to examine moral identity here have demonstrated good psychometric properties when employed with adolescents (Hardy *et al.*, 2014; Patrick & Gibbs, 2012).

Moral Disengagement. The latent variable *moral disengagement* consisted of the observed variables measured by Bandura *et al.*'s (1996) Mechanisms of Moral Disengagement scale. This 32-item scale ($\alpha = .95$) is comprised of eight subscales, each assessing a different facet of moral disengagement: moral justification, euphemistic language, displacement of responsibility, diffusion of responsibility, advantageous comparison, attribution of blame, distorting of consequences, and dehumanization. Participants were presented with 4 statements⁷ per facet of moral disengagement (for instance, "It is alright to lie to keep your friends out of trouble" (Moral Justification item)) and rated the degree to which they agreed with these statements on a scale ranging from 1 = *strongly disagree* to 5 = *strongly agree*. This scale has demonstrated good psychometric properties, including when used with adolescent samples (e.g., Paciello *et al.*, 2013; Pornari & Wood, 2010).

Online Empathy. The latent variable *online empathy* was estimated by employing two 7-item subscales from the Interpersonal Reactivity Index (IRI, Davis, 1980, 1983, $\alpha = .68 - .75$). The first observed subscale, 'Empathic Concern', gauged participant's focus on and concern for others (to assess affective empathy). The second observed subscale, 'Perspective-taking', assessed participants' tendency to take another person's viewpoint (cognitive empathy). These items were adapted so that participants responded with regards to the online environment: 'Sometimes, *online*, I don't feel sorry for other people when they are having problems' (Reverse scored empathic concern item); 'Before criticizing somebody *online*, I try to imagine how I would feel if I were in their place' (Perspective-taking item). All items were answered using a 5-point scale ranging from "Does not describe me well" to "Describes me very well". The IRI has been used with adolescents (e.g., Hawk *et al.*, 2013), and the

⁶ The five moral contingencies of self-worth items comprise one subscale of the original measure of self-worth by Crocker *et al.* (2003).

⁷ Please note that some statements in this particular measure contained Americanisms, therefore, slight adjustments were made to reflect the language of respondents (for instance, the term 'jerk' was changed to 'idiot'). All changes were minimal and did not change the overall premise of the statement.

current adaptation of items surround the (online) context being considered rather than comprising any qualitative change. An acceptable level of reliability was observed in the current study, see Table 1.

Online Authenticity. The latent variable *online authenticity* consisted of three indicators. The first observed variable is the 4-item ‘Authentic Living’ subscale of Wood et al.’s (2008) Authenticity Scale ($\alpha = .70 - .82$). Again, these items were adapted so that participants responded with regards to the online environment: ‘*When online, I am true to myself in most situations*’. Items were answered using a 7-point scale where *1 = does not describe me well at all* and *7 = describes me very well*. An average of these four items was calculated to create an Authentic Living score. As above, adaptations to this scale surround the context being considered and did not involve any qualitative changes to the sentiment of items. The original scale has been employed with adolescents previously (e.g., Thomaes et al., 2017) and, in the current study, the Cronbach’s alpha score of internal consistency reliability was approaching an acceptable level (see Table 1). This is revisited in the discussion.

The second observed measure of authenticity online is taken from Reinecke and Trepte (2014, $\alpha = .70 - .71$). This measure explores participants’ ‘authentic online profile’ and was originally adapted from the Integrated Self-Discrepancy Index (Hardin & Lakin, 2009). Participants considered their online profile and listed five adjectives that ‘describe the person you represent in your online profile’. For this adolescent sample additional instructions were added for clarity: ‘If someone, were to describe you after looking at your online profile, what five words would they use?’ After supplying each of the five adjectives/descriptors, participants were asked to rate the extent to which the adjective describes ‘the person you really are’ on a 5-point scale ranging from *1 = does not describe me at all* to *5 = describes we very well*. An overall score was created by calculating an average across the five items and an acceptable level of reliability was observed (see Table 1).

Finally, an adapted version of the Real-Self Overlap Scale (RSOS, Lenton et al., 2013) is an observed variable that examined the degree of overlap between who the participant is *as a person* and who the participant is *online*. The single pictorial item depicts six pairs of circles, where a blue circle represents the person they really are and an orange circle represents their online self. Participants select which of the six pairs of circle best represent the overlap of their online and ‘real world or offline’ selves, with scores ranging from 0 (completely separate circles) to 5 (complete overlap of circles). The original RSOS has been used with adolescent participants to assess offline authenticity (Thomaes et al., 2017).

Parenting Style. The latent variable *parenting style* consisted of three observed variables measured by three subscales of the Parenting Style Inventory II (PSI-II, Darling & Toyokawa, 1997; Darling et al., 2005). This 15-item measure is answered with a 5-point scale ranging from 1 = strongly disagree to 5 = strongly agree. Five items assess responsiveness ($\alpha = .74$, e.g., ‘my parent spends time just talking to me’); five items assess autonomy granting ($\alpha = .75$, e.g., ‘my parent believes I have the right to my own point of view’); and five items assess

demandingness ($\alpha = .72$, 'my parent really expects me to follow family rules'). Two items of each subscale were reverse scored. This measure of parenting has shown good reliability and validity in previous studies of moral values with adolescents (Hardy et al., 2008). Adolescents were asked to consider their main caregiver when answering these items, and average item scores were used for each scale.

Social media use. To generate descriptive data about adolescents' social media use, participants were asked to indicate which social media sites they use on a regular basis (at least once a week). Following Barker (2012), participants were also asked to indicate the frequency and duration of their social media use on a typical weekday and on a typical weekend. Adolescents self-reported the number of times they check social media using on a 6-point scale ranging from 0 = *none* to 5 = *at least 50 times*, and self-reported how long they spend on social media on an 8-point scale ranging from 0 = *no time* to 7 = *more than 6 hours a day*. An average across weekend and weekday scores is calculated to generate an overall score for frequency and duration.

Procedure

This research employed online self-report questionnaires. The participants' social media use and demographic information were assessed before guiding participants through scales measuring moral identity, moral disengagement, empathy, authenticity and parenting style⁸.

⁸ Please note that additional wellbeing scales were included alongside those described here but were excluded from the model.

Results

Preliminary Results

When asked which social media sites they used most frequently, 37% of the sample said YouTube, 34% Snapchat, 21% Instagram and 4% Facebook. The median number of times participants reported checking/visiting social media sites was *'between 10 and 20 times a day'*. The median duration of time spent on social media per day was *between 3 and 4 hours*. Mean scores, standard deviations and reliability for the remaining scales employed in this study can be seen in Table 1.

[Insert Table 1 here].

Structural Equation Modeling

Using MPlus version 7.11, we first fitted a measurement model, with all observed variables. The theta matrix was not positive definite and this was rectified by removing the observed parenting style variable of Demandingness, which evidenced a linear dependence and was the weakest component of the parenting latent variable. When we removed that variable, the model terminated normally. Although the model resulted in a significant chi square statistic ($\chi^2(125) = 472.22, p < .001$)⁹, it had adequate relative fit indices (CFI = .92; SRMR = .05; RMSEA = .06, 90% CI [.05 - .07]). Modification indices suggested correlating the errors of two indicators of the moral identity latent (Contingencies and Moral Aspects) and five indicators of moral disengagement latent (Displacement with Diffusion, Advantage, and Euphemism; Distortion with Euphemism). It is reasonable to assume that these errors may be correlated because, in each instance, they are indicators of the same latent variable, and we therefore allowed them to covary. This improved the model fit ($\Delta\chi^2(4) = 140.92, p < .001$). Although the resulting model had a significant chi square statistic ($\chi^2(78) = 331.30, p < .001$), the relative fit statistics were acceptable (CFI = .95, SRMR = .04, RMSEA = .05, 90% CI [.04-.05]).

We then fitted the full hypothesized structural model in the entire sample with parenting having direct relationships with online empathy and online authenticity as well as indirect relationships first through moral identity and second through moral disengagement (see Figure 2). Because we are examining the same direct and indirect effects in the model, the fit of the structural model is the same as the measurement model. The indirect relationships were assessed with bootstrapping (1000 iterations) to establish confidence intervals. We report only unstandardized coefficients because we will compare results across multiple samples that may differ in their variances (Kline, 2005). In this model, hypothesis 1 was not supported for the full sample as the direct relationship between moral disengagement and online empathy was not statistically significant ($b = -.11$) nor was the direct

⁹ With complex models, researchers generally do not expect nonsignificant χ^2 tests.

relationship with online authenticity ($b = .03$). Moral identity was significantly related to online empathy ($b = .72$, $p < .001$, 95% CI [.51 - .98]) and online authenticity ($b = .60$, $p < .001$, 95% CI [.37 - .89]) in the model, providing support for hypothesis 2. The lack of a relationship between moral disengagement and the two online outcome variables means that hypothesis 3 also did not receive support. That is, there was no indirect relationships between moral identity and the two outcome variables through moral disengagement. The model did result in a significant indirect relationship from parenting to online empathy through moral identity ($b = .22$, $p < .001$, 95% CI [.13 - .36]). There was no direct relationship between parenting and online empathy. We also found a significant indirect relationship from parenting to online authenticity through moral identity ($b = .19$, $p < .001$, 95% CI [.09 - .33]). There was no direct relationship between parenting and online authenticity, but there were direct relationships between moral identity and online authenticity ($b = .60$, $p < .001$) and moral identity and online empathy ($b = .72$, $p < .001$). These results are partially consistent with hypothesis 4. Specifically, there was an indirect relationship between parenting and the two online outcome variables through moral identity, but not through moral disengagement.

[Insert Figure 2 here.]

To assess the model for invariance across gender, we fitted a configural model that included separate models for males and females. Although the overall model that combines the entire sample had a significant chi square statistic ($\chi^2(269) = 601.23$, $p < .001$), it had adequate relative fit indices (CFI = .91; SRMR = .06; RMSEA = .06, 90% CI [.05 - .07]). For males, hypothesis 1 was not supported as moral disengagement was not directly related to online empathy ($b = -.12$), nor to online authenticity ($b = .16$), but hypothesis 2 was consistent with the results as moral identity was directly related to both online empathy ($b = .68$, $p < .001$, 95% CI [.47 - .96]) and online authenticity ($b = .66$, $p < .001$, 95% CI [.41 - .92]). Because there was no direct relationship between moral disengagement and the two online outcome variables, hypothesis 3 was not supported for males. In the portion of the model that only included males, there were significant indirect relationships from parenting to online empathy through moral identity ($b = .24$, $p < .001$, 95% CI [.14 - .36]) but not through moral disengagement ($b = .03$). There were no other direct or indirect relationships between parenting and online empathy. In the male sample, we also found a significant indirect relationship from parenting to online authenticity through moral identity ($b = .23$, $p < .001$, 95% CI [.13 - .34]), but no indirect relationship through moral disengagement ($b = -.03$). (See supplemental Figure 3). These indirect relationships are consistent with the moral identity portion of hypothesis 4, but not the moral disengagement portion.

In the model that only included females, there were no direct or indirect relationships from parenting to online empathy or authenticity. (See supplemental Figure 4). For females, moral disengagement was related to online authenticity ($b = -.52$, $p = .011$, 95% CI [-.91 - -.12]), but not to online empathy ($b = -.03$), partially consistent

with hypothesis 1. Hypothesis 2 was not supported as moral identity was not statistically significantly related to either online empathy ($b = .63$) or online authenticity ($b = .42$). Among females, there were significant path coefficients between parenting and moral identity ($b = .19, p < .001, 95\% \text{ CI } [.09 - .30]$), moral identity and moral disengagement ($b = -.61, p = .011, 95\% \text{ CI } [-1.20 - -.24]$), and between moral disengagement and online authenticity ($b = -.52, p < .001, 95\% \text{ CI } [-.91 - -.12]$). However, there was no indirect relationship between moral identity and authenticity through moral disengagement ($b = .32$), inconsistent with hypothesis 3. Hypothesis 4 did not receive support among females because there were no indirect relationships from parenting to either online empathy or online authenticity. The Wald test indicates that the indirect relationship from parenting to online empathy through moral identity differs for males and females ($\text{Wald}\chi^2(1) = 5.12, p = .024$) suggesting that the indirect relationship was stronger among males than females. There was no significant difference between males and females in the indirect relationship between parenting and online authenticity through moral identity ($\text{Wald}\chi^2(1) = 0.57, p = .450$).

We then tested the degree of invariance in specific paths across gender. This is pursued by constraining each path to be equal in both genders and assessing whether the overall model fit deteriorates as a result based on chi square difference testing comparing the configural model to the model with the constraint. When the path coefficient from parenting to moral identity was constrained to be equal across gender, the model fit deteriorated ($\Delta\chi^2(1) = 81.13, p < .001$), indicating that males have a stronger link between these variables ($b = .35, p < .001$) than do females ($b = .19, p < .001$). Model fit deteriorated when the moral disengagement to online authenticity pathway was constrained to be equal as well ($\Delta\chi^2(1) = 178.52, p < .001$), because females had a strong negative association ($b = -.52, p < .001$) whereas males had a non-significant path coefficient ($b = .16, p = .155$). There were no other differences in the path coefficients across gender. These results indicate partial invariance across gender.

We examined invariance across age groups using the same approach we used with gender and comparing the younger participants (ages 11-13) with older participants (ages 14-17). In the first step to assess the model for invariance across age, we fitted a configural model that included younger and older participants. Although the model had a significant chi square statistic ($\chi^2(274) = 686.15, p < .001$), it had adequate relative fit indices (CFI = .90; SRMR = .07; RMSEA = .06, 90% CI [.06 - .07]). Hypothesis 1 was partially supported for both age groups as there was a significant direct relationship between moral disengagement and online empathy for younger ($b = -.08, p = .048, 95\% \text{ CI } [-.14 - -.01]$) and older respondents ($b = -.08, p = .048, 95\% \text{ CI } [-.15 - -.01]$). There was no relationship between moral disengagement and online authenticity for either age group. The data were fully consistent with hypothesis 2 for both samples. For younger respondents, moral identity was related to online empathy ($b = .59, p < .001, 95\% \text{ CI } [.43 - .80]$) and online authenticity ($b = .52, p = .002, 95\% \text{ CI } [.19 - .83]$), and for older participants the relationship was found for online empathy ($b = .35, p < .001, 95\% \text{ CI } [.26 - .47]$) and online authenticity ($b = .57, p < .001, 95\% \text{ CI } [.28 - .93]$) as well. Neither age group had an indirect relationship between moral identity and

either online empathy or online authenticity through moral disengagement, contrary to hypothesis 3. For hypothesis 4, both younger and older participants had significant indirect relationships from parenting to online empathy through moral identity (younger: $b = .13, p < .001, 95\% \text{ CI } [.07 - .22]$; older: $b = .09, p < .001, 95\% \text{ CI } [.05 - .15]$). In both the younger and the older groups, we also found a significant indirect relationship from parenting to online authenticity through moral identity (younger: $b = .12, p = .010, 95\% \text{ CI } [.05 - .23]$; older: $b = .15, p = .004, 95\% \text{ CI } [.07 - .27]$). There was also an indirect relationship between parenting and online empathy through moral identity and moral disengagement for both groups (younger: $b = -.003, p = .029, 95\% \text{ CI } [-.21 - -.07]$; older: $b = -.002, p < .031, 95\% \text{ CI } [-.20 - -.09]$). Thus, the age-based models were fully consistent with hypothesis 4 for online empathy. There was no indirect relationship between parenting and online authenticity through moral identity and moral disengagement for either group because the moral disengagement-online authenticity relationship was nonsignificant. Therefore, the results are inconsistent with hypothesis 4 for moral disengagement. The tests for differences in the indirect relationships for younger and older participants were nonsignificant for the indirect pathway from parenting to online empathy through moral identity ($\text{Wald}\chi^2(1) = 1.30, p = .254$) and the indirect relationship between parenting and online empathy through moral identity and moral disengagement ($\text{Wald}\chi^2(1) = 1.38, p = .241$). There were no indirect relationships between parenting and either online outcome variable through moral disengagement. These results can be seen graphically in supplemental Figures 5 and 6.

We then tested the degree of invariance in specific paths across age. When the path coefficient from moral identity to online authenticity was constrained to be equal across age, the model fit deteriorated ($\Delta\chi^2(1) = 5.31, p < .05$), indicating that older participants have a stronger link between these variables ($b = .57, p < .001$) than do younger participants ($b = .52, p = .002$). The remaining path coefficients did not deviate from invariance across age. These results indicate partial invariance across age. Table 2 provides a summary of all key findings.

[Insert Table 2 here].

Discussion

The current study involved an exploration of the roles of moral identity, moral disengagement and authoritative parenting in accounting for adolescents' online empathy and online authenticity. As outlined in the introduction, the online environment presents various moral challenges to internet users and may encourage moral disengagement, for example, through placing a physical and psychological distance between individuals. We also reviewed how moral disengagement has been negatively related to empathy in many studies of offline contexts (e.g., Detert et al., 2008), and is a key source of cyberbullying, which is partly characterized by a lack of empathy for others online (e.g., Kyriacou & Zuin, 2016). Moral disengagement has been further related to deception and inauthentic self-presentations through self-monitoring capabilities (Gangestad & Snyder, 2000; Ogunfowora, Bourdage, Nguyen, 2013).

In the current study, therefore, Hypothesis 1 predicted that moral disengagement would be negatively related to online empathy and online authenticity. These relationships did not emerge in the structural equation model with the whole sample. However, there was a small negative relationship between moral disengagement and online empathy in the younger and older subsamples. Although this result is far from robust, it indicates that separating the sample into younger and older groups allowed a small (negative) relationship to emerge that was obscured in the full sample. Moreover, a negative relationship between moral disengagement and online authenticity was observed in the adolescent female sample, but not in adolescent males. Research has suggested that females self-disclose more in online contexts (Peter, Valkenberg, & Schouten, 2005) and, as highlighted in the introduction, individuals' motivations for using social media may impact adolescents' online authenticity, and these motivations might differ based on gender. For example, the need for popularity has been related to enhanced and strategic self-presentations, and it has been noted that females are more likely to engage 'social grooming' processes as part of their pursuit for popularity and validation (Utz et al., 2012). Together these results could indicate that online authenticity is perceived and valued differently by (adolescent) males and females. The current results reflect the first examination of moral disengagement in relation to adolescents' online authenticity. Bearing this in mind, future research should explore the value that adolescents place on online authenticity and consider the motivations for authentic online behaviors across genders.

When examining moral identity, previous conceptual and empirical work on this topic has suggested that adolescents for whom moral traits are an important part of their identity are likely to feel, think and act in ways that uphold their moral commitments (Hardy & Carlo, 2005). We postulated that this should also hold true in the online world and hypothesis 2 suggested that adolescents' moral identity would correlate positively with their online empathy and online authenticity. These two relationships are the most robust results of our study, with moderate to strong relationships in all but one model. In the only exception, the model comprised of females, the path coefficients

were greater than .60, but these path coefficients were not statistically significant due to unusually high standard errors. The overall consistency of this result suggests that moral identity is an important precursor of online empathy and online authenticity among adolescents.

The relationship between moral identity and online authenticity was stronger for older adolescents (14 – 17 year olds) than younger participants (11 – 13 year olds) in the current sample. This might be partly explained through the developmental trajectory of moral identity. As argued elsewhere, moral identity is developing throughout the period of adolescence with research suggesting that it is only middle-to-late adolescence when moral values are becoming integrated into adolescents' self-concept (Damon & Hart, 1988). Therefore, the relationship between moral identity and online authenticity may be stronger for older adolescents as their moral identity is likely to be more developed. It is unclear, however, as to why the same age differences were not observed for online empathy. One argument here could be that empathy is integrated into one's moral identity earlier, perhaps due to parents' role in fostering empathy in their children from an early age (Berkowitz & Grych, 1998), or perhaps the moral status of empathy is clearer than it is for authenticity. Further research is required to replicate and explain these differences.

Given how previous research has consistently identified a negative relationship between moral identity and moral disengagement offline (Detert et al., 2008; Hardy et al., 2015; He & Harris, 2014), we further theorized that moral identity would function to discourage moral disengagement in the current study. Specifically, hypothesis 3 predicted that moral identity will also be indirectly linked to online empathy and online authenticity through dampening the effects of moral disengagement. This hypothesis received virtually no support, largely due to the absence of a relationship between moral disengagement and the two online outcome variables. Although there was a direct relationship among moral disengagement and online authenticity for females, the indirect relationship from moral identity to online authenticity through moral disengagement was not statistically significant. Moral identity was, however, negatively related to moral disengagement in all of the models, as expected. Our results indicate that although moral identity seems to reduce the likelihood of moral disengagement, moral disengagement plays a smaller role in online empathy and authenticity than we expected.

Studies on parental influence demonstrate that parents continue to be an important source of moral behavior into adolescence, and that moral traits and behaviors are associated with authoritative parenting through moral identity (Hardy et al., 2008; 2010). We expected the influence of parenting on moral disengagement, online empathy and authenticity behavior to be indirect through moral identity. Specifically, hypothesis 4 suggested that authoritative parenting would be indirectly related to online empathy and online authenticity through moral identity and moral disengagement. In line with the hypothesized indirect effects of authoritative parenting style, the full mediation model suggests that parenting style is indirectly related to online empathy and online authenticity through

moral identity. The only exception to this pattern of relationships was with the female subsample (but see point above regarding standard errors in this sample). On the whole, the results suggest an important role for parenting style as a precursor of both moral identity and online behavior that merits continued research attention. In contrast, there were no indirect relationships between parenting and the online outcome variables through moral disengagement, contrary to our expectations.

The invariance assessments indicated some important differences between the male and female subsamples, as already discussed. One striking result is the degree of invariance across the two age subsamples, however. We found that form invariance (model-level) held across age groups, and that the only lapse in invariance was in a single path coefficient for the moral identity to online authenticity relationship. This relationship was positive and strong for both samples, but slightly stronger for the older group.

Overall, the results of this study indicate that individuals for whom being moral is an important part of their self-concept are more likely to think and behave in empathic and authentic ways online. This is an important relationship to observe empirically as it provides evidence for the role of moral identity in encouraging moral behaviors online (or perhaps in discouraging immoral behaviors). Strategies aimed at cultivating moral identity may therefore help to alleviate the rate of cyberbullying; a phenomenon consistently related to a lack of empathy in the online environment. Public Health England (2017) found that 17.9% of their sample of 5,335 11-15 year olds reported being cyberbullied within the two months prior to data collection. This suggests a possible indirect effect of moral identity on psychosocial outcomes, since cyberbullying can lead to internalizing and externalizing problems, including depressive symptoms and drug misuse (Elgar et al., 2014). The results further indicate that enhancing the accessibility of one's moral identity online might function to promote honest and authentic self-representations. This too may have a positive impact on adolescents' psychosocial outcomes – research has indicated that adolescents' sense of authenticity, and adults' online authenticity, are both positively related to wellbeing (Reinecke & Trepte, 2014; Thomaes et al., 2017). The current results may indicate that strategies to enhance empathy or authenticity through moral identity could be more successful in adolescent boys than girls. However, we caution against any strong assumptions here based on the unequal sample sizes in this single-wave study and the high standard error in the female subsample.

Given that scholars believe that moral identity can be promoted and encouraged (Hardy et al., 2008), the relationships observed here indicate a possible route for the promotion of moral thoughts and behaviors online. A key promoter of moral identity, as supported by the current study, is an authoritative parenting style. Previous research suggests that parents are a vital source for moral development and serve as a crucial influence on their child's internalization and acceptance of moral values (Hardy et al., 2008) and their development of a moral identity

(Patrick & Gibbs, 2012). Our results specifically signal the importance of responsiveness and autonomy support from parents in supporting the link between moral identity and online empathy and online authenticity.

Importantly in the development of moral identity, it should be noted that children (and equally adults) do not receive consistent messages; rather they are often presented with conflicting value messages depending on context and relationship (e.g., parent-child; teacher-child; peer group etc.) (Padilla-Walker & Thompson, 2005). Online platforms, and in particular social media platforms, might present users with many different viewpoints and an array of different behaviors; some of these may conflict with value messages that they receive in other domains. These value conflicts are reflected in parental concerns (Padilla-Walker, 2006) and attempts to monitor children's internet consumption. Monitoring internet use could be considered a technique in which moral identity could be actively encouraged online, and/or moral disengagement discouraged. Recently, Morgan and Kristjánsson (2017) explored parental regulation strategies in situations where moral values may be compromised online. The authors created social media scenarios where empathy and honesty seemed lacking and gauged adolescents' perceptions of the regulation strategies that their parents were most likely to adopt in response to them. According to the adolescent respondents, strategies that aimed to prevent moral transgressions from arising are most commonly adopted by parents and parents are likely to use more controlling strategies in response to morally salient scenarios. Of particular importance here, parental regulation strategies partly accounted for both the frequency and duration of adolescents' social media use, thereby indicating that regulation techniques can influence adolescents' social media use.

Educational programs that encourage reflection and development of virtues have been shown to increase virtue literacy and even improve students' behaviors (Arthur et al., 2014). In terms of teaching moral values online, Harrison (2016) has suggested an Aristotelian framework for helping young people to develop as virtuous digital citizens by mastering what he terms 'cyber-phronesis'. This entails being able to invoke practical wisdom when online in order to make good judgements and wise decisions and develop moral virtues. Particular strategies that might be used to develop cyber-phronesis could include morally salient social media scenarios, for instance, which require participants to reflect on how their behaviors impact others.

It appears, therefore, that there are ways in which the formation and maintenance of moral identity might be encouraged in offline contexts within family and school life, through the use of parenting strategies, educational programs and monitoring of social media, for example. However, given the amount of time spent online and the importance of this activity, it is vital that this promotion of moral identity is not limited to offline scenarios. Moral identity can be encouraged online via efforts on social media platforms. Situational factors may be employed to counteract the features of the online environment that decrease the accessibility of moral identity and be used to activate moral schemas instead (Aquino et al., 2009). For example, reminders of moral codes to encourage individuals to think, feel and act in accordance with their internalized moral values. One avenue for further research,

therefore, could be to examine the effects of moral primes or reminders about moral identity online and whether these effects differ depending on the platforms used, or the motivations for using them. For example, platforms where users' identities are closely linked to their offline identities may be more encouraging of moral thoughts, feelings and behaviors online. For example, Facebook profiles can act as an extension of one's offline identity and encourage individuals to act as they would in 'real life' – in this way, social network sites might elicit some of the same (moral) expectations as face-to-face interactions do. James (2014) has suggested that close ties between online and offline identity can weaken inclinations to disengage from one's moral self and, encourage an individual's moral sensitivity.

Limitations and Future Research

Given the cross-sectional and correlational design of this study, with variables tested at one time-point, direction of effects and causality cannot be established. Relatedly, the scales employed in the current study are self-report and are measuring socially desirable constructs. It is possible that these responses may not reflect participants' views or behaviors. This might be especially true of younger participants in this sample who reported higher endorsements of both moral identity and empathy. (Although it is important to note that there was substantial variability in responses in the current study, indicating that many individuals did report less of these characteristics than might be seen as desirable). Future research could explore the relationship between these variables within a multi-wave study and/or through employing an experimental design to examine whether these correlational links can be directly observed in behavior and to establish a temporal order. This might include, for instance, diary studies to gauge daily empathic or authentic online interactions and/or priming experiments (see, for example, Thomaes et al., 2017).

There may be questions about the validity and reliability of the Authentic Living subscale to assess adolescent's understandings of online authenticity, given the low reliability with this sample. Although SEM procedures mitigate this to some degree, the low reliability may still suggest that this construct was not measured optimally. It should also be noted that adolescents' understanding of authenticity was not directly tested in this study. Although definitions of authenticity were offered to aid with participants' comprehension of this construct, it is not clear whether participants would have understood what it is to 'be true to oneself' (especially during a time where their identity is still being explored and developed). Studies using the Authentic Living scale to study adolescents' authenticity offline (e.g., Thomaes et al., 2017) have noted higher reliability scores than those documented here. This might indicate greater uncertainty about what authenticity looks like within online environments. These issues around validity should be borne in mind in future endeavors to measure authenticity within adolescent samples. The nonsignificant relationship between moral disengagement and authenticity within the full mediation model could also reflect our measurement choice – an online deception scale might better examine the moral elements involved in misleading others or being (dis)honest online. Relatedly, in the current study,

parenting style was assessed via adolescent perceptions. This is a common method for examining authoritative parenting (Pasquali et al., 2012), whereby perceived parenting styles have been consistently related to young people's psychological functioning (Brand et al., 2009) and children's reports of parenting styles are argued to be equally valid as direct observations (Golden, 1969). Perhaps unsurprisingly, self-assessment of one's own parenting style can lead to more positive evaluations and adolescents' perspectives on parenting style may not reflect their parents' perceptions or intentions (Cho, Ha & Jue, 2020). Recent research indicates that perceptual differences in evaluations of parenting style across parents and children may, themselves, be informative and help to explain adolescent psychosocial outcomes (Cho et al., 2020). Thus, future examinations of the role of parenting in relation to moral identity, online empathy and/or online authenticity could consider studying parent-child dyads with the inclusion of parental views.

Another possible avenue for future research would be to explore situational and dispositional variability in moral identity online, including, for example, explorations of the relationship between online and offline moral identity or an extended examination of individual differences in internet users' degree of online empathy or authenticity and engagement in associated behaviors (e.g., cyberbullying and exaggeration or faking of content). Relatedly, certain internet sites might provide weaker or stronger situational influence; for instance, social media sites are likely to promote different sociocultural expectations based on the functions that are available and the behaviors that are typically exhibited by its users (see, e.g., Waterloo et al., 2018). Sites that are more permissive of inauthentic or 'unempathic' content and behavior will likely lead to more moral disengagement. A comparison of the relationship between moral identity, moral disengagement and empathy/authenticity across social media sites might shed light on the platforms where young people are more likely to encounter, or engage with, unkind and dishonest content.

Conclusion

In this study, parenting style was positively related to adolescents' moral identity and moral identity was positively related to online empathy and online authenticity. There were generally indirect relationships between parenting and the online outcome variables through moral identity. Moral identity was also negatively associated with moral disengagement. These results suggest that moral identity encourages moral thoughts, feelings and actions in the online environment, and that employing an authoritative parenting style may enhance moral identity and, in turn, cultivating a moral identity may encourage prosocial behaviors online. Importantly, the formation and accessibility of one's moral identity can be promoted - for instance, through parental strategies, educational interventions and priming techniques. It is reasonable to suggest that prosocial behavior in the online environment could be fostered by increasing moral identity, making moral values more salient online, or emphasizing the overlap between one's online and offline selves. The importance and ubiquity of online activity makes the development of prosocial

behavior in online environments extremely important. This field would benefit from future research into whether and/or how moral identity might be promoted via online platforms, as well as an exploration into situational and individual variability in moral identity online.

The relationships observed here indicate some gender and age-related differences, for example a direct relationship between moral disengagement and online authenticity was observed in adolescent females but not males. Given the dearth of research examining moral disengagement (and moral identity) alongside online authenticity, the current results signal that further research should explore the value that adolescents place on online authenticity and consider the motivations for authentic online behaviors across genders.

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Data availability statement:

Data are available from the authors with the permission of Jubilee Centre for Character and Virtues, University of Birmingham.

Funding statement:

This research was made possible by funding from the John Templeton Foundation.

Conflict of interest disclosure:

The authors have no conflicts of interest to declare.

Ethics approval statement:

Full ethical approval for the studies outlined in this manuscript was provided by the University of Birmingham's Ethics Committee. All work carried out complied with ethical guidance from the British Psychological Society and the University of Birmingham.

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Acknowledgements

The authors would like to express their gratitude to Professor Kristján Kristjánsson (University of Birmingham) for his advice and guidance on this project. We would also like to thank the reviewers for prompting further deliberation on the gender and age-related differences observed here.

The authors made reference to relevant guidance on standards for reporting research design and data analysis including the Equator Network.

The authors did not preregister this research in an independent institutional registry.