

Chapter 12

The Empathy Paradox: Increasing Disconnection in the Age of Increasing Connection

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ABSTRACT

The purpose of this chapter is to summarize changes in personality traits that have co-occurred with the rise of new social media, and to evaluate the plausibility of the hypothesis that new social media are a partial explanation for these dramatic changes. Studies have found a rise in social disconnection among recent generations of young Americans. Self-esteem and narcissism have been rising in college students from the late 1970s to 2010, with simultaneous declines in empathy. Scholars and lay people alike blame the rise of the internet, and in particular, self-oriented and self-promoting “social” networking sites. This new media landscape could lead to increasing social disconnection even as it superficially increases our social connections, and several studies suggest a direct link between social media use and social disconnection. However, since most research thus far is correlational, interpretations are limited, leaving open more optimistic possibilities for new social media.

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INTRODUCTION

We suffer today I believe from a lack of connection with each other. This is common knowledge; so common in fact, that it may not even be true. It may be that we are overconnected, for all I know. -(Barthelme, 1965, p. 50)

In this chapter I summarize recent empirical studies documenting changes in the self-perceptions of Americans in the past 30 years (from the late 1970s to 2010). The overarching purpose of it is to weigh in on the role of new social media in causing these changes. I will attempt to answer such questions as: How have Americans changed in the way they see themselves across the past 50 years? How has the media landscape changed in America across the past 50 years? Could there be a link between the two types of changes? If so, what kind of research has been conducted to help us answer that question?

Whenever possible, I will rely on empirical or quantitative studies to answer these questions. Many of us have interesting stories to tell about changes that are occurring in how people relate to each other and in the new media landscape, and many of us can easily cite examples of how these two may be linked. I rely on empirical research in order to attempt to avoid biases that might occur because of our limited knowledge or perspective. However, since empirical research without these types of stories can be a bit deadening, I also intersperse anecdotes throughout.

Before reviewing research on changes in self-esteem, narcissism, and empathy over time, it is important to first discuss two inevitable targets of widespread prejudice: *young people* and *new media*. There is a long history of older adults criticizing younger generations for ways in which they are different from them. Older adults often complain that youth today are selfish, irresponsible, and have no sense of shame. Here is an example of a quote taken from the popular media. Can you guess when this was written? ¹ “The worst part is

that they don’t care what people--their mothers and fathers and uncles and aunts--think of them. They haven’t any sense of shame, honor or duty . . . they don’t care about anything except pleasure.” This kind of stereotyping has been occurring for a very long time.

Currently, almost half of all television stories about young people present them in a negative light (Amundson, Lichter, & Lichter, 2005; Gilliam & Bales, 2001). Obviously young people are not the only group to face such stereotypes, but it is still unfortunate that audiences crave such stories. In fact, reading negative news stories about young people boosts older adults’ self-esteem (Knobloch-Westerwick & Hastall, 2010), which may explain why they are so popular. In any case, since there is a prevalent bias against young people that has existed for generations, it is important to critically and skeptically examine the empirical evidence concerning generational differences in self-views, social attitudes, and social behaviors. Thus, in Part I of this chapter I will review the research on changes in self-perceptions among American young people in recent years. Importantly, these data are obtained from young people’s self-reports, which hopefully eliminates some of the biases from older adults.

Another human tendency appears to have at least as long of a history, which is the tendency to be suspicious of new media in whatever form it might take. One such new medium was described as: a cause of “negligence and folly,” a “non-entity” that only “vulgar” people enjoy, a “poison,” a “casual disorder,” a “national evil,” “the reflection of our own weakness,” and a “vicious affection.” Again, you may be surprised which new media is referred to by these nasty names.² This is just one example of the predictable discomfort people have in the presence of major changes in media and technology. From our smug perspective, it seems laughable that novels were ever seen as such a threat, but future generations may find our endless debates about the perils of the online world equally amusing. It is with this historical

lens that I will discuss recent research tracking changes in the individual and social identities of young Americans and linking these changes to the rise of new social media. In Part II, I will briefly review the history of major types of media available throughout the 20th century, and will then settle on a deeper discussion of new social media and its potential role in causing increased social disconnection in the past several years.

PART I: INCREASING DISCONNECTION

Recent research in psychology and sociology documents an increase in self-focus and a simultaneous decrease in a focus on others that is becoming more prevalent in American society, especially among young people (see Table 1, for a summary). Much of this research was conducted by me or my colleagues. In it, we examine changes in standard measures of self-esteem, individual-

ism, narcissism, empathy, and attachment style, from the late 1970s until the present time. I also describe research on moral reasoning and community participation, which parallel these findings.

Does it really matter if there have been changes in people’s psychological traits and social behaviors over time? It’s worth addressing this question up front, before describing the research findings in detail. The human need for social connection and belonging is one of our fundamental needs, starting in infancy and lasting throughout our lives (Baumeister & Leary, 1995; Caccioppo, 2008). Nearly every waking hour we are either interacting with other people directly or thinking about them. We can’t even escape social interactions in our dreams. This need for social connection is rooted in our biology. In infancy, forming healthy attachments with caring parents is the key to survival and well-being (Oates, 2007), and as we mature, these early social experiences likely play a role in our body’s strong physiological responses to other people. It’s true

Table 1. A summary of the major changes in self or other-related traits and behaviors from the 1960s until present

Outcome	Changes over time	Citations
Self-esteem	Increasing over time in American children, high school students, college students, and general societal indicators.	DeWall, Pond, Campbell, Twenge, 2011; Gentile, Twenge, & Campbell, 2010; Konrath & Anderson, 2011; Konrath, Anderson, & Lau, 2011; Twenge & Campbell, 2001; Twenge, Campbell, & Gentile, 2011
Individualism	American college students have been more likely to endorse individualistic traits.	Twenge, 1997; Twenge, 2001
Narcissistic personality	Narcissism has been rising among American college students.	Twenge & Foster, 2008; Twenge & Foster, 2010; Twenge, Konrath, Foster, Campbell, & Bushman, 2008
Dispositional empathy	Empathic concern and perspective taking have declined over time among American college students, especially after the year 2000.	Konrath, O’Brien, & Hsing, 2011
Adult attachment style	The percentage of American college students who have dismissing attachment styles has been rising over time, especially since the late 1990s.	Konrath, Chopik, O’Brien, & Hsing, 2011
Moral reasoning	College students’ justifications for moral decisions have become increasingly self-centered.	Thoma & Bebeau, 2008
Community participation	Declines in social participation of all kinds, including in formal organizations and informal social gatherings.	Putnam, 2000

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that sometimes other people are stressful and difficult, but it is also true that: people in relationships live longer than single people, giving to others is associated with health benefits, and social interactions of all kinds help to keep people psychologically and physically healthier (Brown & Brown, 2006; Brown, Nesse, Vinokur, & Smith, 2003; House, Landis, & Umberson, 1988; Konrath, Fuhrel-Forbis, Lou, & Brown, 2011). Positive social interactions with close others can release bonding hormones such as progesterone and oxytocin and reduce cortisol, which taken together, can help to repair any negative effects of exposure to stress (Brown et al., 2009; Cosley, McCoy, Saslow, & Epel, 2010; Field, Hernandez-Reif, Quintino, Schanberg, & Kuhn, 1998; Smith, Loving, Crockett, & Campbell, 2009). In other words, social connection is good for individuals.

But the effects of healthy social connections extend beyond individual benefits to people, and to society at large. Imagine a society in which everyone was highly egotistical and were only concerned with caring for themselves. That society would not be very functional in the long-term, and many social institutions would collapse. The education system would be in even worse shape than it is today because childless people would refuse to pay school taxes to fund the education of other people's children. Non-profits would probably cease to exist because few would volunteer their time to help needy others without expecting some sort of personal benefit. And so on. Luckily, we are in no danger of having every single individual in the United States be a certified narcissist, but if the types of trends that I discuss below continue, there will be long-term implications for society, including for the imminent aging population in America, and for natural resource scarcity issues that are occurring all over the world.

A note on methods: Many of the studies that I describe rely on the method of cross-temporal meta-analysis (i.e. CTMA; Twenge, 2001). It is important to understand this method in order to accurately interpret the research presented in

this chapter. Essentially, a cross-temporal meta-analysis involves retrieving data (e.g. average self-esteem scores) from previously published or unpublished studies conducted in the past, and examining the effect of the year of data collection on the outcome measure.

There are some ground rules for a high quality cross-temporal meta-analysis. First, the *measure* of the trait or outcome must be reliable, valid, and widely used in the literature. The method is only as good as the measure that is used. In all research reported below, my colleagues and I focused on standard measures of self-esteem, narcissism, empathy, and attachment style. Next, the group of *participants* who are selected must be comparable over time. They should be a somewhat general group, and they cannot be selected for some reason such as being especially high or low on the measure, or for being from a clinical population. We focus on American high school and college students because many studies use them as participants, and the demographic distribution of such groups have not substantially changed over time (e.g. see Konrath, O'Brien, & Hsing, 2011). Finally, the *data analysis* is essentially a correlation between the year of data collection and the outcome of interest. It's a little bit more complicated than that because we use regression analyses, weight for individual sample sizes, and take into account the individual study standard deviations to address the ecological fallacy, but the simple idea is that we examine whether there are simple increases or decreases in traits, or if these changes are more complex (e.g. they begin at a certain year, or the outcome increases temporarily then decreases).

With a cross-temporal meta-analysis it is possible to argue that there have been *generational changes* in a given trait because we are comparing a specific group (e.g. 20 year old American college students) over time on a certain trait. Thus, if 20 year old college students in 1980 scored lower in self-esteem than 20 year old college students in the year 2000, we could reasonably argue that

this may be due to generational change. What we cannot know with such an analysis is whether 60 year old Americans in the year 2000 also have higher self-esteem scores than 60 year olds in the 1980s. So our ability to generalize outside of the specific group is limited. However, in the studies below there are times when other studies using different research methodologies can allow us to make more general conclusions.

Changes in Self-Oriented Traits and Processes

Self-esteem is defined as how positively or negatively people tend to typically see themselves. Trait self-esteem is assessed by asking people questions such as: “I’m a person of worth, at least on an equal basis with others” (Rosenberg, 1965). Having high self-esteem is generally seen as a desirable goal, but research evidence on its desirability is mixed. There are some people who believe that high self-esteem is the cure for all of society’s ills. For example, Nathaniel Branden, a psychotherapist best known for publishing his influential book *The Psychology of Self-Esteem* (Branden, 1969), saw self-esteem as uniformly positive: “I cannot think of a single psychological problem—from anxiety and depression, to underachievement at school or at work, to fear of intimacy, happiness, or success, to alcohol or drug abuse, to spouse battering or child molestation, to co-dependency and sexual disorders, to passivity and chronic aimlessness, to suicide and crimes of violence—that is not traceable, at least in part, to the problem of deficient self-esteem” (Branden, 1994, p. XV). Indeed, high self-esteem is associated with increased psychological health and well-being (e.g. lower depression and anxiety, and increased life satisfaction: Crandall, 1973; Diener, 1984; Tennen & Herzberger, 1987). Yet it has also been linked to defensiveness, unreasonable persistence on tasks, and even aggression at times (Baumeister, Smart, & Boden, 1996; Heatherton & Vohs, 2000; McFarlin, Baumeister, & Blascovich,

1984). So the desirability of high self-esteem is up for debate, and what most people can agree on is that either extremely high or extremely low self-esteem is problematic.

Changes in self-esteem over time in the United States would likely be of interest to people from both sides of the debate. There have been several cross-temporal meta-analyses conducted in order to investigate temporal trends in trait self-esteem (and general self-evaluations) in the United States. The patterns have been relatively consistent, finding that children, high school students, and college students have been showing increasing levels of positive self-regard from the late 1960s until the early 2000s (Gentile, Twenge, & Campbell, 2010; Twenge & Campbell, 2001, 2008; Twenge, Campbell, & Gentile, 2011). Fortunately, in the case of self-esteem, there have also been other methods used to examine its temporal trends. These other studies can help to address some of the limitations of the cross-temporal meta-analytic method. One limitation is that CTMAs can only track trends among *research participants*, who may not reflect the United States’ population more broadly. Another limitation is that CTMAs can only track changes in a trait since the trait began to be reliably measured, which means that the data go back to the late 1960s, at the earliest. This *limited time frame* may obscure more complex patterns such as rises and falls in self-esteem. In addition, CTMAs allow researchers to examine participants’ own *self-reported* views of themselves, but limits the scope of analysis to the individual, rather than society at large.

One study examined a form self-esteem or self-focus “at a distance” by counting the number of first person singular pronouns (e.g. I, me) in popular song lyrics from 1980 to 2007 (DeWall, Pond, Campbell, & Twenge, 2011). The researchers found that such self-focused pronouns had been increasing over time, which conceptually replicates the CTMA results. In addition, we have also been experimenting with alternative measures with broader sociological relevance. In

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one study we found that the use of the word “self-esteem” in published books has been significantly increasing from the 1900s to the year 2000, and that this increase is especially pronounced after 1970 (Konrath & Anderson, 2011). This effect occurs even when we control for the number of books published each year, which is also rising. Moreover, the opposite pattern exists for another self-related term with very different connotations: *self-control*. In current work we are examining the pattern of self-esteem usage in historical newspaper archives, and finding that self-esteem is becoming an increasingly popular phrase in the news, especially since the 1970s (Konrath, Anderson, & Lau, 2011). Although these at-a-distance measures have their own limitations, they nicely complement the other work, and taken together, there is evidence that American society is becoming increasingly interested in, and fixated on, self-esteem.

If the only societal changes were rising levels of self-esteem, this would not necessarily be problematic, but research has also found changes in individualism and narcissism across time among Americans. There are two central ways of perceiving the self: as more individualistic (or independent) or as more collectivistic (or interdependent; Singelis, 1994). Individualistic people tend to see themselves as unique and distinct from others, and emphasize their separateness, personal traits and abilities, and desire for freedom and independence. Collectivistic people tend to focus more on interpersonal connections to others, and have a greater sense of rootedness within social communities and structures, with a high value on maintaining harmonious social interactions rather than speaking their mind (Markus & Kitayama, 1991). In the United States, people on average tend to be relatively high in individualism or independence (Oyserman, Coon, & Kimmelmeier, 2002). Using the cross-temporal meta-analytic method, research has found that college students (males and females) reported increasing individualistic traits from the 1970s to the 1990s, being more likely to

endorse such self-descriptors as “independent,” “individualistic,” and having “leadership ability” (Twenge, 1997). There have been corresponding rises in self-reported assertiveness over the same time period (Twenge, 2001).

Perhaps even rising individualism and self-esteem would not be so bad in themselves, but these may both be symptoms of a more extreme problem. Dispositional (or non-clinical) narcissists have overly positive views of themselves, especially on traits such as intelligence and dominance (Campbell, Rudich, & Sedikides, 2002). Although at first narcissists appear to be charming and sociable, it quickly becomes apparent to relationship partners that narcissists are only interested in getting what they can for themselves, and then moving on when something better comes along (Campbell, 1999; Campbell, Foster, & Finkel, 2002; Foster, Shrira, & Campbell, 2006). Besides being lousy relationship partners, narcissists are also highly reactive to threat, and can become aggressive if someone questions their unrealistic views of themselves (Bushman & Baumeister, 1998; Konrath, Bushman, & Campbell, 2006). Narcissism also has larger implications for society in that it is associated with exploitative and unsustainable strategies in resource dilemma games (Campbell, Bush, Brunell, & Shelton, 2005). In other words, the personality trait narcissism is bad for relationships and is a signal of social disconnection.

Using the method of cross-temporal meta-analysis, my colleagues and I have found evidence that narcissism has been increasing among American college students from the early 1980s until about 2009, the latest year data were available (Twenge & Foster, 2008, 2010; Twenge, Konrath, Foster, Campbell, & Bushman, 2008). Today’s college students are more likely to agree with such statements as “*I always know what I am doing*,” “*If I ruled the world it would be a better place*,” and “*I will never be satisfied until I get all that I deserve*,” which are statements taken directly from the Narcissistic Personality Inventory (Raskin & Terry, 1988), the standard measure of narcissism

used in our cross-temporal meta-analysis. This is by far the change with the most serious potential relational and societal consequences discussed so far. Interestingly, the average narcissism score for college students in 2006 was nearly identical to the average narcissism scores of celebrities about to be interviewed for a radio program, also measured in 2006 (Young & Pinsky, 2006). College students' narcissism is so high that it rivals a group of well-known actors, singers, and musicians – now that is the very definition of an inflated sense of the self!

Changes in Social-Oriented Traits and Processes

Increases in self-focus would mean something different if they were also accompanied by increases in a focus on others. That is, I am not arguing that everyone should hate themselves or that it doesn't take a small dose of healthy narcissism to accomplish big goals. I'm suggesting that if people are so driven by their obsessive need for admiration and unwavering positive self-views, this may come at the expense of their ability to form healthy connections with others. Healthy self-confidence is different from inflated self-esteem or narcissistic self-focus because it leaves room for a genuine concern for others' desires and needs, which tend to get squashed when elephant-sized egos are in the room. Given the societal changes documented above, it seems likely that Americans' ability to socially connect will simultaneously be suffering.

Indeed, as early as 1995 Robert Putnam wrote an influential paper titled *Bowling alone: America's declining social capital*, in which he argued that Americans were becoming less involved in formal and informal social gatherings, including memberships in religious organizations, sports clubs, labor unions, and school-service associations (Putnam, 1995). As a result, Americans were losing their trust in others and motivation to be civically engaged. He later expanded this essay into a bestselling book that elaborated his theories

with even more evidence for these changes (Putnam, 2000). This book contains one of the most thorough records of the recent declines in social-oriented processes, and I recommend it to readers who would like more background on this topic.

Other relevant research examined the moral reasoning styles of students over time, finding changes that should not be surprising at this point. Moral reasoning is assessed by such instruments as the Defining Issues Test (Rest, 1979), in which participants read short stories that contain moral dilemmas of some sort, and they have to make a moral decision and justify it. The most well-known example of this is the Heinz dilemma, about a man whose wife has cancer and who has to decide if he should steal a drug that he cannot afford or allow her to die (Colby & Kohlberg, 1987). Both decisions violate moral laws, so no matter what participants decide, there is some conflict. What is of interest to researchers is how people justify their decision. It is possible for two people to both say that Heinz should not steal the drug, but for different reasons. One might say that Heinz shouldn't steal the drug because he could get in trouble and go to jail. This would be seen as a lower level of moral reasoning than someone who said that Heinz shouldn't steal the drug because if everyone in society stole things they couldn't afford, imagine how horrible society would be (Colby & Kohlberg, 1987). The first reason is more individually-focused than the second one, which focuses on the interests of society at large. Recent research has found startling declines in students' levels of moral reasoning over the past 20 years, and in fact, the most common type of moral reasoning among recent college students is focused on personal interests and punishment (Thoma & Bebeau, 2008).

Our recent research has examined changes in dispositional empathy among American college students. Empathy is a multifaceted construct, with both affective and cognitive components (Davis, 1983). The more affective component, *empathic concern*, represents people's tendencies to feel

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what others are feeling. So for example, if Julia breaks up with her obnoxious boyfriend, a friend with high empathic concern would feel and echo Julia's sadness and disappointment, and set aside her own possible feelings of relief or hopefulness about Julia's future. Empathic concern involves accurately reflecting others' emotional states, and being able to separate those states from one's own emotions.

The more cognitive component, *perspective taking*, represents people's tendencies to accurately imagine the world from another person's point of view. So, if Julia's friend is high in perspective taking, she should be able to imagine Julia eating dinner alone at night, thinking about whether or not she will ever find someone to settle down with and have a family, and having self-doubts about her attractiveness. It's as if Julia's friend can literally step into her mind and see things the way Julia does. She should be able to read Julia's body language and facial expressions and know how Julia is responding to the breakup. A friend who is low in perspective taking might be focused on all the possibilities for Julia's future and all the other potential partners out there. But if that is not what Julia is thinking about, then that is not accurate perspective taking.

Empathic concern and perspective taking usually go together: if someone is high in one, she will usually be high in another (Davis, 1983). However, this is not necessarily the case. It is possible for example to be high in perspective taking but low in empathic concern. That is, some people might be very good at reading others' emotions, but very bad at caring what others are feeling. This combination, while unlikely, is probably characteristic of sociopaths, who are able to get what they want through manipulation and charm.

When we conducted a cross-temporal meta-analysis to examine changes in empathic concern and perspective taking among American college students from 1979 to 2009, we found that both types of empathy were dramatically declining over time, about 40% on average when consid-

ered together (Konrath, O'Brien, et al., 2011). Moreover, we found that these declines really began around the year 2000, which is intriguing considering the dramatic changes in media use that were occurring at this same time. Since the students in our study were on average about 20 years old, this means that students born in the 1980s or later are much lower in empathy than students who were born in the 1960s and 1970s. Other research using nationally representative samples that better reflect the everyday American population finds that people who were born in the 1980s or later report having the lowest empathy of all Americans (O'Brien, Konrath, & Hagen, 2011). This pattern holds regardless of gender, ethnicity, or educational background.

Finally, there have also been changes in the most fundamental way that college students view others. Attachment research began by studying the mother-infant bond, and its importance to the later well-being of humans and animals (Ainsworth, 1979; Bowlby, 1977). Later researchers expanded beyond the early childhood years after noticing the similarities between mother-infant relationships and relationships between romantic partners or close friends (Hazan & Shaver, 1987). In fact, the early attachment relationship seems to shape the way people perceive their later relationships (Bowlby, 1988; Fraley & Shaver, 2000).

There are four different attachment styles, based on a combination of how people see themselves and how they see others (Bartholomew & Horowitz, 1991; Pietromonaco & Barrett, 2000). *Securely attached* individuals have positive views of themselves and others, and are thus comfortable with both intimacy and autonomy. People with *preoccupied attachment* styles have negative views of the self but positive views of others, and as such, they tend to be clingy and desperate in their relationships, ever fearful of abandonment because of their unworthiness. People with more *fearful attachment* styles have negative views of themselves and others, and although they want closeness with others, they are distrustful and

afraid of rejection so have trouble forming close bonds. People with more *dismissing attachment* styles have positive self-views, but negative views of others. These individuals agree with the statement “I am comfortable without close relationships” (Bartholomew & Horowitz, 1991) and not surprisingly, they have difficulty in maintaining such relationships (Pietromonaco, Greenwood, & Feldman Barrett, 2004). Importantly, people with predominantly dismissing orientations have high narcissism and low empathy (Diehl, Elnick, Bourbeau, & Labouvie-Vief, 1998; Gjerde, Onishi, & Carlson, 2004; Neumann & Bierhoff, 2004; Smolewska & Dion, 2005). Given this, we predicted (and found) that the percentage of American college students with predominantly dismissing attachment styles would be rising over time. Interestingly, we specifically found that this increase in dismissing attachment began in the late 1990s, which paralleled our results finding that the decline in empathy began around the year 2000.

Some potential causes: Taken together, there is a large body of evidence suggesting that young Americans (and especially college students) are becoming more socially disconnected, with some changes happening at a steady pace since the 1960s, and other changes seeming to accelerate around the late 1990s to early 2000 period. Why could this be? In none of our work were we able to clearly determine the causes of the social changes. Simply documenting them was the purpose of these papers. However, I think of this as kind of a detective story, and have a few guesses about the potential causes. In all of my speculating, I am very influenced by Bronfenbrenner’s ecological model that focuses on the different levels of societal influence (Bronfenbrenner, 1977), moving from the individual’s *microsystem* (family, religious setting, classroom, peers), to the *exosystem* (community, school, mass media), to the broader *macrosystem* (political systems, economics, culture, society). I also see the relationship between individual traits and behaviors, and culture, to be dynamic, with

broader societal changes affecting the individual, and the individual also affecting larger society.

In the microsystem, the closest sphere of influence to individuals, changes in family settings or practices in recent years could at least partially explain some of the increase in social disconnection. For example, there have been smaller family sizes in recent years. In the 1960s American families had an average of 2.38 children, but by the 1980s this had dropped to 1.85 children (U.S. Bureau of the Census, 2009). Although this seems like a small change, the numbers really reflect the increasing frequency of single-child families. It is only each family’s business how many children they decide to have, but perhaps one consideration in family planning might be the potential for siblings to help develop each other’s everyday empathy skills (Tucker, Updegraff, McHale, & Crouter, 1999).

Changes in the educational environment may also have some causal effect on individuals’ abilities to think outside of themselves. In the early 1980s, the self-esteem movement was in full force in schools all over the United States (Stout, 2000), and remnants of this still exist in today’s educational environment. The continual priority on making children feel like superstars, rather than giving them constructive feedback about their performance, likely has a negative effect on their ability to imagine that others might be as important as they are. There are a number of potential reasons for these changes at each of the levels of analysis, but I now turn to the potential role of media in causing them.

PART II: INCREASING CONNECTION

Young people across the world are increasingly disconnected from authority, from government, from all kinds of institutions that have been historically the foundations of society, because they are so interconnected through the internet, something that my generation can’t really understand. -Secretary of State Hillary Clinton, 2010

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Scholars, politicians, and lay people alike have been quick to blame the rise of the internet for the changes described above, and in particular, self-oriented and self-promoting “social” networking sites. The internet and social networking sites are seen as a hall of mirrors, magnifying the ego because of their increasing personalization, shallow interpersonal interactions, and short information life. In other words, there is some concern that the cost of a technologically mediated self (the “technoself”), is necessarily a decline in deep and meaningful social connections (Twenge & Campbell, 2009). But is this concern warranted? What evidence is there that certain types of media environments might be more toxic to our social selves?

There have been startling changes in the electronic media landscape from the middle of the 20th century until now. In the 1930s, the most popular forms of electronic media were movies, radio, and records, and children spent approximately 10 hours per week (1.4 hours per day) consuming these types of media, on average (Gutnick, Robb, Takeuchi, & Kotler, 2010). With the 1950s came the beginning of television: in 1950 only 10% of homes had a television set, but by 1960 90% of homes did, with the television on for an average of 6 hours per day in American homes (Gutnick, et al., 2010). The major change in the media landscape in the 1970s was the rise of cable television, which added an extra hour per day of television sets being turned on, and at the same time, television began to be widely viewed by babies for up to 2 hours per day (Gutnick, et al., 2010). The 1980s brought about home video games, VCRs, walkmen, early computers, and an extra hour per day of TV, up to 8 hours per day (Gutnick, et al., 2010). In the 1990s new media now included handheld video games, cell phones, and the internet. Research during the 1990s found that children (ages 8-18) were exposed to various types of media for 7.5 hours per day on average (Gutnick, et al., 2010). And the turn of the 21st

century brought with it even more screens with which to amuse ourselves: DVDs, better and faster computers and the internet, MP3 players, DVRs, smart phones, and tablet computers. By the 2000s, children were exposed to nearly 11 hours of media per day (Gutnick, et al., 2010). We are now more connected than we ever were before. Well then why are we more disconnected? Marshall McLuhan foresaw the rise of this “global village,” but his view was that electronic technologies would “render individualism obsolete” (McLuhan, 1962, p. 1). In fact, this is the empathy paradox – that as we are becoming more interdependent in a *global* sense we are becoming less interdependent within our *individual* lives.

What’s interesting to think about when considering these changes in electronic media, is that many of the societal changes described in Part I had already begun *before* the internet age. This suggests that heavy television viewing might be implicated in such changes. In fact, we are not the first to be concerned about rising narcissism and self-focus in society. It was a popular critique of American culture in the 1970s (Lasch, 1978; Wolfe, 1976). Although Lasch and Wolfe did not use fancy charts and tables to demonstrate their points as we do, their observations of increasing self-centeredness were remarkable, and sound very familiar to today’s ears. They cite a number of broad social, political, and economic causes of these changes, but do not place a large focus on the potential role of media in general, and television, in particular. Ironically, one type of media, namely film, pointed its accusing finger directly to the small screen. *Network*, a multiple Oscar-winning movie that was released in 1976 to critical acclaim, was a satire about a television network doing anything they could to get ratings. An especially stirring scene in it occurs when the head of the network news, Max, decides to leave his younger lover, Diana, who is in charge of programming, because of her social disconnection: “You’re television incarnate, Diana, indifferent to

suffering, insensitive to joy. All of life is reduced to the common rubble of banality – war, murder, death -- all the same to you as bottles of beer. And the business of life is a corrupt comedy. You even shatter the sensations of time and space into split seconds, instant replays. You're madness Diana, virulent madness, and everything you touch dies with you. But not me, not as long as I can feel pleasure, and pain, and love" (Lumet, 1976). This movie was suggesting by way of Max and its own absurdity, that television might somehow cause us to disconnect from our emotional lives.

Interestingly, nearly 20 years later with the publishing of his influential essay, Robert Putnam also pointed to television as one potential cause for lower social and community participation (Putnam, 1995).

Time-budget studies in the 1960s showed that the growth in time spent watching television dwarfed all other changes in the way Americans passed their days and nights. Television has made our communities (or, rather, what we experience as our communities) wider and shallower. In the language of economics, electronic technology enables individual tastes to be satisfied more fully, but at the cost of the positive social externalities associated with more primitive forms of entertainment. The same logic applies to the replacement of vaudeville by the movies and now of movies by the VCR (Putnam, 1995, p. 72).

Again, Putnam observed these changes in society years before the internet was widely adopted in American homes, which suggests that media may indeed play a role in rising disconnection, but not only new social media. Even with the rise of the internet, Americans' television watching (not just switched on televisions) is at an all time high (Gandossy, 2009). So although it is not the purpose of this chapter to review research on television and social disconnection, we cannot rule out the potential role of television in at least partially causing some of these changes.

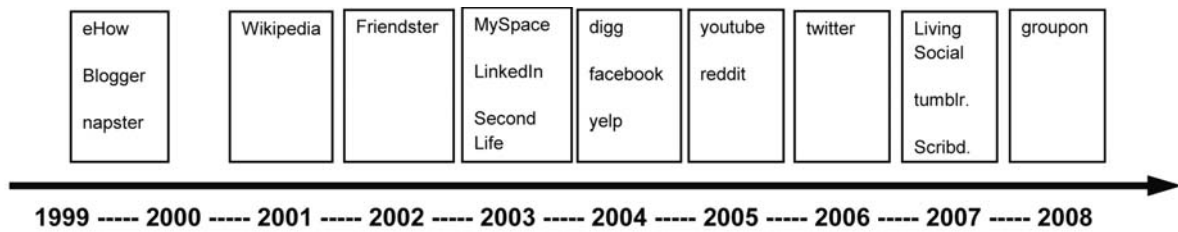
This current historical time period has much in common with the late 1960s and early 1970s. We are still in the middle of an unpopular war, there is much economic uncertainty and instability, oil prices are high and the environment is a concern, and we are grappling with a change in media that has so drastically altered our daily social routines that many people find it unsettling. This sense of unease began in the early years of popular computer use, with early critics asking questions such as "Will computers raise egocentrism to the status of a virtue?" (Postman, 1992, p. 17). People now routinely interrupt dinners and face-to-face conversations with cell phone calls and text messages, and just walking down the street is an anthropological experience of "man (and woman) with new technology." Joggers have little white nubs stuffed into their ears, bikers talk on the phone with one hand and steer with the other, fathers pushing strollers look like they are talking to themselves unless one notices the little black attachment coming out of their heads, coffee shops are filled screen-to-screen, with overflowing outlets and quiet, blank-faced patrons, and toddlers effortlessly crack passwords on their parents' iPhones to play games.

Theoretically, it is possible that the rise of *new social media*, could have some deleterious effects on our social selves. In fact, the major electronic media advances between the late 1990s and now have been largely in this domain (See Figure 1), which overlaps with when empathy began to decline and dismissing attachment began to rise among American college students. College students are typically quick to adopt new technology because they have ready access to resources and time, so it is not surprising that we would see negative effects of new technology on them first.

Social media is becoming America's habit (Nielsen, 2011). Currently it accounts for nearly one quarter of the total time spent online, with almost 80% of internet users regularly visiting some type of social media (including blogs). In fact, the website that consumes the most of

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Figure 1. The rise of new social media from 1999 – present



America's time is facebook, the most popular social media site at the printing of this book, with over 53 billion minutes of time (equivalent to over 100,000 years) spent on it in 2011 alone (Nielsen, 2011). In this next section I will discuss some theoretical reasons why social media might create increasing social disconnection, but also why that does not necessarily have to be the case. Finally, I will review the current research on new social media and social disconnection.

There are a number of reasons why new social media could encourage lower empathy and related traits. First, in face-to-face communication, we are exposed to a wide array of signals from conversation partners, from visual (e.g. clothing, facial expressions, posture, fidgeting, eye contact) to auditory (e.g. actual words, tone of voice, speed) to tactile (e.g. distance from self, touch) to chemical signals (e.g. olfactory cues, pheromones). It is likely that regular practice in this multisensory environment can help to hone our empathy skills. Because social interactions are so complex, we may need a number of different signals in combination to elicit compassion and motivate kindness toward one another. For example, if a friend is having a bad day, most of us can pick it up in an instant in person, even if she were to say "I'm having an awesome day." In person we would be able to detect the sarcasm in her voice and notice how slow she is walking and the tell-tale red rims around her eyes. Empathy is developed within these types of social contexts. But what if she expressed the same sentiment on facebook? It would be much more difficult to no-

tice that she was feeling dejected. Many advances in media come at the expense of one or more of our senses, suggesting that one key feature of the "technoself" is its continual evolution toward an *abstract asensorality*. And although new social media seem exciting in their potential for social connection, they leave out a lot of important social information about the person on the other side of the computer or device. Even video-chat programs like Skype, for all of their benefits, do not allow users to have direct eye contact, leaving them in awkward and slightly autistic social encounters in which they have to choose between looking at the camera (to give the other person eye contact from them) or looking at the other person on the screen (to the other person, it seems as though they are looking at something else).

Another reason why new social media might encourage less than empathic behaviors is that it allows users to be virtually anonymous. Even though most internet transactions can ultimately be traced back to all but the most skilled of internet users, there is still a powerful feeling of being anonymous. And research in social psychology tells us that this sense of anonymity can loosen people's sense of what is appropriate and responsible conduct, and cause them to behave in ways that they normally would not. In other words, the situation of being anonymous is compelling, and can cause a disinhibited state called "deindividuation" that can be potentially harmful to others (Kiesler & Sproull, 1992; Postmes & Spears, 1998; Weicher, 2006). This state of disinhibition, when coupled with the greater interpersonal and

physical distance that accompanies many online interactions, makes it easier to ignore the feelings of the interaction partner. One famous series of social psychology experiments found that the physically closer participants were to potential victims of their aggression (in this case, electrical shocks), the less likely they were to follow through with the shock (Milgram, 1965). When the victim is distant, “the victim’s suffering possesses an abstract, remote quality for the subject. He is aware, but only in a conceptual sense, that his actions cause pain to another person; the fact is apprehended, but not felt” (p. 63). When comparing anonymous to named online interactions, I am almost certain that the ones that involve people’s real names would be more civil and other-oriented than anonymous ones.

New social media (and the internet in general) might also dull our empathic abilities because they allow us to be inundated with information from all over the world, at all hours of the day and night. This information used to be restricted to what we saw when we watched television or read the paper, but now it can follow us everywhere. And although we have a lot of control over what we consume online, at the touch of our fingertips we can now be exposed to the suffering of the world, with the potential of being overwhelmed by it all (i.e. “compassion fatigue”: Figley, 1995). Even experts who encounter others’ pain on a daily basis, like doctors, are known to learn ways to emotionally numb themselves from others’ pain (Cheng et al., 2007). So it is possible that chronic overexposure to tragedies occurring around the globe can have numbing effects.

With the widening of our world also comes a narrowing of it, which Eli Pariser calls the “filter bubble” (Pariser, 2011). Unbeknownst to many internet users, popular search engines and social network sites use algorithms based on users’ prior behavior to filter their results so that they will be more likely to see information that suits their own personal interests. This occurs even when people are logged out of these websites, using different signals such as the type of web browser and com-

puter being used. This increasing personalization might seem like a convenience, but it is possible that this is simply creating an entire universe of the self. It would not be surprising if this “web of one” created even more self-centeredness in future years as the personalizing technology becomes more widely adopted and sophisticated.

Finally, one obvious reason why new social media can affect our empathic capacities is that they leave us with less time and energy available to give to others. Time is a limited resource, and time online is almost always time not being spent in person (or very low quality time, if it is in person). Whether or not the internet in itself is detrimental to our abilities to socially connect, anything that takes us away from the social world is likely to make such skills rusty, at best.

On the other hand, the “technoself” does not necessarily have to be a narcissistic one, but can have an identity that reaches beyond traditional social boundaries and into the realms of otherness more fluidly than ever before. In other words, new social media is not a good or an evil, but is a tool like any other than can be used for a variety of purposes, including more prosocial ones. “It is a mistake to suppose that any technological innovation has a one-sided effect. Every technology is both a burden and a blessing; not either-or, but this-and-that” (Postman, 1992, p. 4-5). In *Civilization and Its Discontents*, Freud (1930/2005) comments on the double-sided nature of new technologies, describing the happiness felt at hearing, whenever one wishes, “the voice of a child of mine who is living hundreds of miles away” on the telephone, but then quickly goes on to say that “if there had been no railway to conquer distances, my child would never have left his native town and I should need no telephone to hear his voice” (Freud, 1930/2005, p. 70-71). He aptly observed the tradeoffs that are associated with the introduction of new technologies, hinting at the sense of increasing sense of connection even while technology spread people (literally) further apart from each other.

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Still, I have personally experienced the prosocial potential of such technologies. I recently signed up for a walk for breast cancer in support of my student, whose mother had received a diagnosis that year. I also have another close friend who had been struggling with breast cancer for a couple of years, so I had other personal reasons to participate in the walk. The organization sponsoring the walk provided the option to post a message on one's facebook page, and receive donations directly through facebook. I wondered whether it would be possible to raise money this way, and tried it out. Well, it turns out that several of my facebook friends made donations, and within a short time (a few days at most) I had raised a few hundred dollars for the walk. I was stunned.

I encountered another example of how social networking sites can be used for surprisingly prosocial means on my way back from giving the talk that this chapter is based on. While waiting in Union Station in Chicago, I started chatting with a young woman and inevitably the conversation turned to where we were traveling and why. Jasmime³ did not fit the stereotype of an extreme altruist. She was dressed in baggy boys' clothes and had a lot of piercings – a kind of Lisbeth Salander type (the protagonist from the *Girl with the Dragon Tattoo*). She started telling me about a recent situation she had found herself in. One of her facebook friends, who was really a distant acquaintance from high school, had posted a status update saying that her brother was dying and needed a new kidney. Jasmime told me that she saw this posting and felt so bad for him that she offered to be tested to see if she would be a match. She was fully prepared to donate one of her kidneys to him if she was. It turned out that the man died before being able to receive a new kidney, but she had gone so far in the process that she became close to his family, and keeps in touch with them still. From her case, it seems as though social media might simply function to accentuate the traits that we already have. After

all, her friend had many other facebook friends, and Jasmime was the only one who offered to help after seeing that post.

New social media is especially promising for its wide accessibility and reach. People who used to be the passive audience are the new producers of such media, which gives average individuals more voice than they have ever had (Rosen, 2006). Users can choose to use this voice in whichever way they want, to exhibitionistically flaunt their egos, or to promote an important social issue or cause, with the potential for an actual audience. Also, as can be seen from the two anecdotes I shared, social media might not be good at forging deep bonds in the traditional sense, but they do capitalize on weaker bonds, or what one sociologist famously called “the strength of weak ties” (Granovetter, 1983):

Our acquaintances (weak ties) are less likely to be socially involved with one another than are our close friends (strong ties). Thus the set of people made up of any individual and his or her acquaintances comprises a low-density network (one in which many of the possible relational lines are absent) whereas the set consisting of the same individual and his or her close friends will be densely knit (many of the possible lines are present)... The weak tie ... becomes not merely a trivial acquaintance tie but rather a crucial bridge between the two densely knit clumps of close friends. (p. 201-202)

These weak links make it possible to organize into grassroots political movements and other such groups, many of which rely on recruitment by friends. If groups of best friends recruited each other, and no one had any weaker links, then any momentum begun for a specific movement would end within the group of friends. Weak links can help to spread ideas and movements from close network to close network, and thus have the potential to really make a difference (Granovetter, 1983). Both

of the anecdotes I gave relied on the strength of weak ties to commit small scale prosocial acts. But these ties also have larger potential, as many have observed, to make much more radical changes to social structures. Moreover, large scale prosocial responses can begin almost immediately after a disaster because of the speed that information is now disseminated, and because many people now use the internet to donate money. In addition, large scale cooperation does not necessarily require emotional bonds, as the success of Wikipedia evidences. There are many reasons why social media have the potential to increase our social connection, but unfortunately much of these new media are used for more frivolous purposes. The top youtube video of all time is currently Justin Bieber's Baby, with a total of 699,175,066 views (February 1, 2012). At 3 minutes and 45 seconds per view, this adds up to almost 5000 years of viewing time, and counting.

So is there research evidence that social media *causes* social disconnection? I next review the small body of current research examining whether social media use is indeed associated with high narcissism or low empathy, and the even smaller body of research that directly assesses these outcomes after an experimental social media exposure. Every single study that I am aware of that has measured the relationship between narcissism and social media use has found some sort of correlation between the two. For example, people who score higher on narcissism report more iPod usage, more text messaging, more social network and blog usage (e.g. posting pictures of the self, more frequent status updates and content posted), and a greater number of facebook friends (Bergman, Ferrington, Davenport, & Bergman, 2011; Buffardi & Campbell, 2008; Mehdizadeh, 2010; Ong et al., 2011; Poon & Leung, 2011; Saculla, 2010; Schwartz, 2010). They also seem to use social media for different reasons than people scoring low in narcissism, namely as vehicles for popularity, attention, self-promotion, self-isolation, venting about negative feelings, and

exhibitionism or showing off (Bergman, et al., 2011; Buffardi & Campbell, 2008; Mehdizadeh, 2010; Ong, et al., 2011; Poon & Leung, 2011; Ryan & Xenos, 2011; Saculla, 2010). There is also a link between facebook use and decreased societal-based moral reasoning (Saculla, 2010).

However, besides that these studies are largely focused on young adult populations, another problem with them is that they are correlational, which limits the potential interpretation of them. It is possible that certain types of social media usage can create increased narcissism, but it is also possible that people who are more narcissistic are simply drawn to these sites and use them the way that they would use any other tool – to self-enhance and self-promote. It is also possible that there is some sort of other variable that better explains the relationship between narcissism and social media use. Perhaps people who frequently use social media are from higher socioeconomic backgrounds, and so are people who score higher in narcissism. These findings might be obscuring some important explanation like social class. However, one experimental study that was presented at a recent conference (but remains unpublished) found that participants who were randomly assigned to view their MySpace pages had higher narcissism after doing so compared to participants who viewed other webpages (Freeman & Twenge, 2010). This is the only experimental study that I am aware of that directly addresses the role of new media in creating narcissism, and more research is needed before any conclusions can be made.

In terms of the relationship between self-esteem and social media usage, there are even fewer studies, and again, most of them are correlational. This research tends to find something dissimilar, that people with higher self-esteem spend *less* time on social network sites, find them less important and meaningful in their lives, and use them for less self-promoting reasons than people with lower self-esteem (Kalpidou, Costin, & Morris, 2011; Mehdizadeh, 2010; Sahin, Sari, & Aydin, 2011; Schwartz, 2010). This is surprising considering

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that narcissism and self-esteem are highly correlated in most studies (Bushman & Baumeister, 1998; Raskin, Novacek, & Hogan, 1991), which probably reflects the fact that both narcissists and people with high self-esteem see themselves as better than average on agentic traits (e.g. intelligence, dominance). However, what differentiates narcissism and self-esteem is that people with high self-esteem also see themselves as better than average on communal traits (e.g. empathy, caring), while people scoring high in narcissism do not (Campbell, Rudich, et al., 2002). It would be interesting to examine the *independent* effects of narcissism versus self-esteem (i.e. one controlling for the other) in predicting social network usage, but this has not yet been done. The only experimental study that I am aware of on the topic of self-esteem found that being randomly assigned to spend time on facebook increased participants' self-esteem (Gonzales & Hancock, 2011). Although this may be surprising when other studies show that people with low self-esteem use social media more, it may help to clarify the causal direction, suggesting that people with low self-esteem might prefer social media so that they can receive self-esteem boosts. Again, more research is needed before any conclusions can be made.

To my knowledge there have been no studies examining the direct link between social media usage and dispositional empathy. However, some studies demonstrate a link between social media usage and increased feelings of social connection with people who might have otherwise been memories in high school yearbook photos (Adkins, 2009; Ellison, Steinfield, & Lampe, 2007; Steinfield, Ellison, & Lampe; Valenzuela, Park, & Kee, 2009). Indeed, this seems to be one of the primary benefits of social networking sites, but this type of "weak tie" should not be mistaken for the close friendship bonds that are more likely to support the development of people's empathy. Although people can and do keep in touch via social media, the quantity of these connections likely affects their quality, and this change in quality

remains a potential explanation for at least some of the declines in empathy and rises in dismissing attachment among American college students. In fact, what might really be happening with the rise of new social media parallels what happens with the introduction of any new technology: "It is a certainty that radical technologies create new definitions of old terms, and that this process takes place without our being fully conscious of it... The old words still look the same, are still used in the same kinds of sentences. But they do not have the same meanings: in some cases, they have opposite meanings" (Postman, 1992, p. 8). It is possible that new social media are changing the very definition of the term *social connection*, such that these "weak ties" are now the primary form of it.

FUTURE RESEARCH DIRECTIONS

The literature review on the relationship between social media and social disconnection makes it obvious that much research still needs to be done. All of the studies described were published since 2007, and most of them in the last two years. Because this research is only at its infancy, I think it is important to think about how researchers and scholars might approach these questions thoughtfully and with caution. It is easy to conduct simple correlational studies, and these studies can provide important building blocks for future research, but it is too simple to suggest that the "technoself" directly causes low empathy or high narcissism, no matter how intuitively appealing it is to believe this. Scholars need to move from this simplistic type of thinking to first situate new media within the larger ecological contexts of families, schools, communities, politics, economies, and cultures. We next need to move beyond headline-grabbing accusations at specific types of social media (facebook is a popular target) and change the nature of our questions to ask 1) which types of media, 2) lead to which specific effects, 3) under which

contexts, 4) for whom, and 5) why? Longitudinal studies tracking media usage over time to examine their long-term effects are needed. Researchers pursuing these lines of inquiry could benefit from a close examination of the media and aggression literature when designing their studies (Huesmann, Moise-Titus, Podolski, & Eron, 2003). A major benefit of longitudinal studies is that they occur within people's natural contexts, so the real-world implications are more apparent. However, basic research is also needed that will directly examine the immediate social and cognitive effects of social media usage, using the 5 questions approach I describe above. We are facing serious changes in the way that we live our lives, and it is important to understand what their short-term and long-term effects might be. Regardless of whether or not researchers pursue these questions, babies born today are part of a great social experiment, examining whether traditional forms of socializing are the glue that holds society-at-large together. It would be much better to anticipate any problems that might occur as a result of major advances in media, rather than to face the future unprepared. In the words of Neil Postman, "When we admit a new technology to the culture, we must do so with our eyes wide open" (1992, p. 7).

CONCLUSION

There have been remarkable changes in social traits and behaviors, and in new media, in recent years. Given that these two changes are occurring in parallel, it is tempting to conclude that new media has caused increased social disconnection. But I hope that this chapter has made it clear that while this remains a possibility, there is not currently enough information to know for certain the effects that increasing electronic connection will have on our abilities to socially connect. Until more research is conducted, we can perhaps be content to complain about the youth, because we now have such cold hard facts to support our

pre-existing beliefs about them. But we will have to take pause when it comes to blaming "these newfangled contraptions" for "kids these days" without further evidence.

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KEY TERMS AND DEFINITIONS

Adult Attachment Style: These are fundamental ways that individuals view others, and are divided into positive versus negative views of the self and others. People with positive views of the self and positive views of others are described as having *secure attachment styles*, which means that they tend to be good at balancing their own needs with the needs of relationship partners. People with negative views of the self but positive views of others have a *preoccupied attachment style*, and tend to be overly clingy and anxious in relationships. People with positive views of the self and negative views of others have a *dismissing attachment style*, and tend to avoid deep interpersonal bonds. Finally, those with negative views of the self and others have *fearful attachment styles*, desiring to have relationships with others but not being trusting enough to engage in them. See Bartholomew & Horowitz (1991) for more information.

Correlational Study: A correlational study (also known as a cross-sectional study) is a research method in which participants are asked to complete a series of questionnaires or measurements at a single time point. For example, participants may be asked to complete a standardized measure of narcissism and also asked questions about their social network usage. Although these types of studies can be useful, they make interpretations about causality difficult. First, it is impossible to determine the direction of causality with such studies. For example, does social network usage cause narcissism to rise, or do people who score higher in narcissism simply use these types of technologies more? Second, correlational studies suffer from the third variable (or confound) problem. For example, it is possible that there is a correlation between social network use and narcissism because people from higher income economic backgrounds are higher in narcissism and also use such technologies more frequently. In other words, income could best explain this correlation.

Cross-Temporal Meta-Analysis: A cross-temporal meta-analysis (CTMA) is a research method popularized by social psychologist Jean Twenge in which researchers track scores on standardized psychological tests over a period of time (usually several decades). In order to be effective, scores must be taken from widely used and highly valid measures, from similar populations across all time periods (e.g. college students), and from both published and unpublished sources. CTMAs can examine cohort effects because they compare similar-aged people at one time point (e.g. 1980) to similar-aged people at another time point (e.g. 2010).

Dispositional Empathy: Also known as trait empathy, dispositional empathy is the tendency for people to imagine and experience the feelings and experiences of others. Researchers typically discuss dispositional empathy in contrast to state or situational empathy, which is an immediate response to a specific eliciting situation. Dispositional empathy is typically divided into more cognitive (e.g. Perspective Taking) and more affective or emotional (e.g. Empathic Concern) components. Moreover, most researchers distinguish between more other-oriented empathic traits and states compared to more self-oriented ones (e.g. Personal Distress). See Davis (1983) for more information.

Experimental Study: Experimental studies involve the random assignment of participants into different groups (e.g. experimental, control) in order to determine the causal effect of a certain condition (independent variable) on a certain outcome (dependent variable). An example of an experimental study on the current topic would be to randomly assign some participants to spend 10 minutes on their facebook page (experimental treatment), and the other participants to spend 10 minutes on other websites (control group). Experimental studies are considered the gold standard in social psychological studies because researchers are able to determine causal effects with more confidence than when using any other research method.

Individualism: Individualism (or independent self-construal) is the tendency to see oneself as a unique individual, who is distinct and separate from others. Typically people scoring high in individualistic traits value assertiveness, achievement, and personal abilities. Individualism is usually discussed in contrast with collectivism (or interdependent self-construal), which is the tendency to see oneself as more interconnected with others and part of larger relational and group contexts. Western cultures are typically found to be more individualistic compared to Eastern cultures, which are more collectivistic.

Longitudinal Study: This is a type of research where the same group of participants is followed for a period of time. Longitudinal studies (also known as panel studies) allow researchers to make inferences about the direction of causality because one variable (e.g. social network usage) is measured before the other one (e.g. narcissism). However, these types of studies still leave open the possibility for third variables, or confounds, that might better explain why a certain relationship exists.

Narcissistic Personality: Narcissism involves an inflated sense of self-worth (i.e. grandiosity) combined with a devaluation or disinterest in other people. It is a personality trait that varies in normal (sub-clinical populations), and as such, the narcissistic personality is distinct from the clinical disorder of Narcissistic Personality Disorder. Although it is likely that those with NPD score high on measures of the narcissistic personality, the disorder is more severe in terms of day-to-day functioning (e.g. at work, in relationships) than the trait.

New Social Media: New social media are defined as networked (i.e. Internet-based) technologies that allow users to interact with other people in some way, whether in real-time or after some sort of delay. Not all social media exist for the sole purpose of social interaction; many exist for some other purpose (e.g. to create knowledge) and allow for social interaction in pursuit of that goal. These media are characterized by their relatively open access (most are free to join), user-generated content, high user controllability and editability, and their usually instantaneous nature.

Self-Esteem: Self-esteem involves people's global evaluations of themselves and their deservingness or worthiness. People who have high self-esteem see themselves as having intrinsic worth, at least as much as anyone else. They are confident, assertive, and have a positive view of others. On the other hand those with low self-esteem see themselves in a more negative light, and exhibit low confidence across many domains in their lives.

ENDNOTES

- ¹ This was taken from an article in the Dallas Morning News, in 1926, referring to “flappers” (Richardson, 1926).
- ² These adjectives were describing the relatively new practice of reading novels (“A censure on the present reigning taste for novels and romances, and how to cure it. London Magazine.,” 1749).
- ³ First name used with permission.