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Social Media, Social Kids: Sociocultural Implications of 21st Century Media for

Development in the Preteen Period.

A dissertation submitted in partial satisfaction for the requirements of the degree of

Doctor of Philosophy in Psychology

By

Yalda Tehranian

2013

ABSTRACT OF THE DISSERTATION

Social Media, Social Kids: Sociocultural Implications of 21st Century Media for

Development in the Preteen Period

by

Yalda Tehranian

University of California, Los Angeles, 2013

Professor Patricia M. Greenfield, Chair

Sociocultural theory emphasizes the role of culture and society on individual development (Davydov, 1995; Vygotsky, 1978). In the 21st century, media have become an essential feature of society, with the current generation of youth being the first to be defined by technology and innovation (Gardner, 2013). An examination of television, a media that can reflect cultural trends, found that the value of fame was the top portrayed value (out of a list of 16 values) in 2007, while it was near the bottom of the list in the years 1967, 1977, 1987 and 1997. During the same time period, the value of community feeling had become less visible, dropping from number one and two to number 11 in 2007 (Uhls & Greenfield, 2011). A follow up study with focus groups of fourth and sixth grade children in LA found that preteens were aware of the messages about fame in TV content, and that online media practices reinforced these messages (Uhls & Greenfield, 2012). Subsequent research using a survey with a large geographically diverse sample (N=315) found that television watching and social networking jointly predicted the value of individualism, constructed as future aspirations for fame, financial success, status and image. Collectivism did not hold a relationship with media. A last study, a field

experiment with an intervention and matched control group, found that eliminating

screens for five days improved preteens emotion understanding. Taken together, these

studies demonstrate that 21st century media dramatically influence social and emotional

development. Implications are that educators, parents and policy makers should educate

youth about the impact that media has on their lives, while particular care should be taken

to create opportunities for face to face social interaction as frequently as possible.

The dissertation of Yalda Tehranian is approved.

Barbara Lawrence

Jim Stigler

Eran Zaidel

Patricia M. Greenfield, Committee Chair

University of California, Los Angeles

2013

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Acknowledgments

Two extraordinarily brilliant women are responsible for my returning to school to get my PhD. The first is my mother Dr. Mina Bissell, who was enthusiastically supportive from the get-go. The second is Dr. Patricia Greenfield, who knew me from my previous career in the movie industry, and was willing to take on a student outside of the norm. Without Patricia, I would likely still be a struggling independent movie producer. The Greenfield lab, with its broad mixture of students and collaborative spirit, enveloped me with its warmth. Her generous mentorship was life transforming.

The rest of my committee provided inspiration and intellectual engagement in my many areas of interest. Jim Stigler said a meaningful statement to me early on, that academics were lucky to be able to study what interests us, what other career affords that kind of intellectual freedom, certainly not the life of a movie executive? Jim's ability to think big, be entrepreneurial and see outside the box are a few of the many things I appreciate. Barbara Lawrence helped with my NSF paper, which clearly made a difference since I received honorable mention. It is wonderful to acknowledge an interest in business, as evidenced by my MBA, by having her on the committee. And Eran Zaidel and I engaged in fascinating conversations about film and the brain. His passion for storytelling and its power to captivate inspires me to keep storytelling in my future.

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EDUCATION

2011   MA, Developmental Psychology, UC Los Angeles
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1987   B.A. French Literature, UC Berkeley

GRANTS AND AWARDS
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- Career Redevelopment Grant, American Association for University Women, (2011-2012)
- National Science Foundation Graduate Fellowship, Honorable Mention (2011)
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- Travel Award, SRCD (2011, 2013)

PUBLICATIONS

Uhls, Y. T., Espinoza, G., Greenfield, P. M., Subrahmanyam, K., & Smahel, D. (2011). Internet and other interactive media. In B. A. Brown & M. Prinstein (Eds.), *Encyclopedia of Adolescence*. Oxford, UK: Elsevier.

Uhls, Y. T., & Greenfield, P. M. (2011). The rise of fame: An historical content analysis. *Cyberpsychology*.

Uhls, Y. T., & Greenfield, P. M. (2012). The value of fame: Preadolescent perceptions of popular media and their relationship to future aspirations. *Developmental Psychology*.

Subrahmanyam, K., Michikyan, M., Clemmons, C., Carillo, R., Uhls, Y. T., & Greenfield, P. M. (In press). Learning from paper, learning from screen: Impact of screen reading and multitasking conditions on reading and writing among college students. *International Journal Of Cyber Behavior, Psychology and Learning*.

SELECTED PRESENTATIONS AND OTHER PUBLICATIONS

Uhls, Y. T, (2103, April 19). *Values and New Media: How Social Media Relate to Preteen Values*. Presented at the Society for Research on Child Development, Seattle, Wa.

Uhls, Y.T. (2011,) *From Texting to Social Networking Sites to Virtual Worlds: Examining Youth Media Practices*. Presented at the Society for Research on Child Development, Montreal, Candada.

American Museum Association (2010). *Applying lessons from media to encourage museum participation.* Los Angeles, Ca.

Uhls, Y.T. & Subrahmanyam, K (2010). [Review of the book *Hanging Out, Messing Around, and Geeking Out: Kids Living and Learning with New Media*]. *Journal of Children and Media 4,* 484-489.

Uhls, Y.T. & Greenfield, P (2009) Adolescents and Electronic Communication, *Education.com*,
http://www.education.com/reference/article/adolescents-online-social-networking/,
reprinted – *Psychology in Action Newsletter,* translated into Spanish and distributed to
2000 middle school parents in Los Angeles.

Uhls, Y.T. (2010) Has Bullying Gone Digital? Cyberbullying Facts *Psychology In Action.org.*
Reprinted for *At Issue: Cyberbulling*, Rochester, MI: Cengage Learning and for Paxen Learning.

OTHER NOTABLE DISTINCTIONS

- Invited Participant, National Science Foundation conference, *The Informed Brain the Digital World*, Irvine, Ca. 2012.
- Invited Participant. McArthur funded conference. Chair Mimi Ito. *Virtual Worlds*. Irvine, Ca. 2010.
- Awarded consultancy grant Hewlett-Packard, 2012-2013.
- Expert Blogger, Huffington Post
- Featured Expert – Kids in the House
- 2010- 2012, Co-President of Psychology in Action, http://www.psychologyinaction.org, UCLA student run organization that disseminates research to communities of interest, outside of academia.
- Named one of the top 100 people in Hollywood by Fade In Magazine
- Mentioned in Robert Rodriguez book REBEL WITHOUT A CREW and in Steve Buscemi's book MY FIRST MOVIE

RELEVANT EMPLOYMENT HISTORY

COMMON SENSE MEDIA   2011-present

Regional Director. Opened the regional office of a national non-profit. Responsible for current office staff of 3 people and revenue of $250,000 a year. Brought in $100,000 grant. Created a yearly fundraising event called GameOn, which highlights positive game oriented activities that are engaging and offer learning. Supervise local advisory council. Interface with entertainment community, heads of independent and public schools, parents and policy makers to advance the goals of media literacy and to promote national efforts for outreach and development.

GOOGLE   2006- 2008
Consultant. Helped create and implement the Santa Monica Speaker Series, a series of speaking events that brought together leaders in the entertainment industry to share their unique perspective on the industry, the creative process and
technology's role in the rapidly changing world.

MGM PICTURES   1997- 2000
Senior Vice President of Production. Supervised multimillion-dollar films from initial stage to final distribution. Worked with external writers, directors and actors and in-house marketing and distribution executives.

Introduction

In the United States in the 21st century, children and adolescents spend more time looking at screens than they do anything else besides sleeping (Rideout, Foehr, & Roberts, 2010; Gunn & Donahue, 2008); even young children, from 0- to 8-years, spend a significant amount of time using digital technology (Common Sense Media, 2013; Gutnick, Robb, Takeuchi, & Kotler, 2011). Beginning early in development, children learn from watching others and through social interaction. Sociocultural theories suggest that children learn in the context of their social and cultural environment (Davydov, 1995; Meadows, 1998; Greenfield, 2009a; Greenfield, 2009b; Vygotsky, 1978). Because media are in children's learning environments from early on, they are an important influence on burgeoning social cognition beginning at a very young age, continuing through adolescence and beyond (Greenfield, 2009a; Rideout et al., 2010). Moreover, media connects to salient and important developmental tasks in adolescence such as social learning and identity formation (Arnett, 1995; Davis, Weigel, James, & Gardner, 2008; Subrahmanyam & Smahel, 2010).

During the ages between late childhood and early adolescence, children change in significant ways, as they undergo critical developmental stages (Eriksen,1959). Additionally, social learning through interacting with peers and others outside of the family becomes of paramount interest (Crick & Dodge, 1994; Erdley & Asher, 1999; Blakemore, 2010). Children at this particular age are the most avid consumers of media, using them an average of 8:40 hours a day, seven days a week (Rideout et al., 2010). Driving much of their media use is mobile technology, a new feature of the environment,

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and the fastest growing technology of all time (Xlane; The Economist, 2009); this technology enhances children's ability to consume media and connect with their peers anywhere and anytime (Neilsen, 2009). Accordingly, peers, already a significant socialization agent, and media usually go hand in hand (Ito et al., 2009), during a period when children begin to access media without the mediating influence of adult (Arnett, 1995).

This astonishing change in the learning environment of preteens, the first generation to be defined by technology and innovation (Gardner, 2013) impacts development and is the focus of my dissertation, which consists of four studies. The first inquiry examined television, an older form of media that reflects culture, and looked to capture change over time, to determine whether a change in values was reflected in this medium. Published in 2011, we developed a new kind of content analysis to look at messages about values over a fifty-year period (Uhls & Greenfield, 2011), finding that fame was the top portrayed value (out of a list of 16 values) in 2007, while it had been near the bottom of the list in the years 1967, 1977, 1987 and 1997. During this same time period, the value of community feeling became less visible, dropping from number one and two in previous decades to number 11 in 2007. The second study, published in 2012, used qualitative (i.e. focus groups with 20 fourth and sixth grade children in Los Angeles) and quantitative methods (i.e. measure of aspirations), to determine whether preteens were aware of the messages that we had found to be prevalent in TV content targeted to their age group, and if so, how they interpreted them. We also asked whether children's online media practices reinforced TV messages targeted to them (Uhls & Greenfield, 2012). Finding a positive association, we followed up with a larger, more geographically diverse, sample in the form of an online survey with 315 children. The large sample size allowed us to use regression to find

associations between value systems and specific media practices, as well as to confirm the results of our focus group study with youth who live outside of Los Angeles.

Given their extensive exposure to screens, children may spend less time in face-to-face communication. The last study in this dissertation took an experimental tack to determine whether completely eliminating screens in a group of sixth grader's day-to-day environment over a period of five days would affect their ability to understand emotion. The research question asked whether extensive screen time leads to a possible reduction in face-to-face communication, which, in turn, negatively affects children's ability to understand non-verbal emotional cues in facial expressions and social situations. To test this question, a field experiment was devised using a pre and post intervention along with a matched control group on all sociodemographics. The experimental group attended an outdoor nature camp in which face-to-face peer interaction was reinforced through the elimination of screen-mediated communication.

The learning environment for children today is saturated with media. Accordingly, psychological research should contribute to the study of how media impact development. These four studies contribute to the field by demonstrating the significant influence of media and technology on the social development of preteens.

The Rise of Fame: An Historical Content Analysis (as submitted for publication)

Abstract

Recent proliferation of TV programming for the tween audience is supported on the Internet with advertising, fan clubs, and other online communities. These Internet tools expand TV's potential influence on human development. Yet little is known about the kinds of values these shows portray. To explore this issue, a new method for conducting content analysis was developed; it used personality indices to measure value priorities and desire for fame in TV programming. The goal was to document historical change in the values communicated to tween audiences, age 9-11, who are major media consumers and whose values are still being formed. We analyzed the top two tween TV shows in the U.S. once a decade over a time span of 50 years, from1967 through 2007. Greenfield's (2009a) theory of social change and human development served as the theoretical framework; it views technology, as well as urban residence, formal education, and wealth, as promoting individualistic values while diminishing communitarian or familistic ones. Fame, an individualistic value, was judged the top value in the shows of 2007, up from number fifteen (out of sixteen) in most of the prior decades. In contrast, community feeling was eleventh in 2007, down from first or second place in all prior decades. According to the theory, a variety of sociodemographic shifts, manifest in census data, could be causing these changes; however, because social change in the U.S. between 1997 and 2007 centered on the expansion of communication technologies, we hypothesize that the sudden value shift in this period is technology driven.

Introduction

"In the future, everyone will be famous for fifteen minutes" (Andy Warhol, 1968).

Over forty years after this famous quote, Andy Warhol's prediction seems to have come to pass. Internet platforms such as online video sharing sites, online publishing websites and social networking sites allow nearly anyone to connect with a virtual audience of friends and strangers, giving everyone the potential for fame. Hollywood has always glamorized being rich, successful, and famous; however, in the past few years, a plethora of shows popular with tweens that feature extraordinarily successful teenage protagonists have been created (Martin, 2009). These shows then become part of supersystems (Kinder, 1991) that extend across multiple media, including web-based advertising, YouTube, online communities such as fan clubs, and video games (both online and offline). The present study aimed to document that this emphasis on fame in tween TV, all the more powerful because of its multimedia extensions, constituted a shift in values from earlier decades.

Promoted by the rapid growth of technology, supersystems surrounding popular TV characters are ubiquitous and global (Buckingham, 2007a). An example is the tween TV series, Hannah Montana, one of the shows analyzed in the present study. Hannah Montana, with a global audience of over 200 million, yielded 31,600,000 hits on Google and 727,000 videos on YouTube on January 31, 2011. It has also spawned a website, online fan club, and online video game site. Adding to its online presence, Miley Cyrus, the star of Hannah Montana, is at the center of online communities, notably fan clubs.

Typing "Miley Cyrus fan club" into the Google search box yielded 1,370,000 results in a Google search on February 1, 2011.

Indeed, in the last few years, children surpassed adults as the number one consumers of online video; YouTube.com, Disney.com and Nick.com are children's (age 2-11) top three on-line video destinations (Nielsen, 2008). Both Disney.com and Nick.com effectively act as marketing sites for the programming on their cable channels, with video, text and game playing devoted to their products (disney.com, nick.com, 2011). YouTube, a consumer-driven video sharing site, can also serve to highlight popular TV characters and actors (e.g. inputting "Miley Cyrus" in YouTube search box returned 987,000 results on February 7, 2011). As such, in the current media saturated environment, tweens are exposed to popular TV characters not only while watching TV programming, but potentially even more intensively and interactively while on the Internet. The Internet thus provides another all-encompassing platform to cultivate children's interest in television programming.

New communication tools, moreover, increase access to TV programming. The latest report by the Kaiser Family Foundation, which has measured media consumption every five years since 1999, found that, in 2009, youth spent nearly an hour a day watching TV content on platforms other than a traditional television set, including Internet, cell phones and Ipods. In a typical day, 59% watched live TV, while the remaining 41% accessed TV in a variety of different manners (Rideout, Foehr, & Roberts, 2010). Popular television programs are often available to watch online within a day of airing on websites such as Hulu, Netflix or YouTube; other sites such as

clicker.com aggregate and organize the vast amounts of online TV content from these websites and others (hulu.com, netflix.com, clicker.com, 2011). TV shows are also available 24/7 on computers, digital recording devices, and mobile devices, allowing one to watch TV from nearly anywhere in the world where one can access the Internet (Uhls, Espinoza, Greenfield, Subrahmanyam, & Smahel, 2011). Because of this kind of proliferation, synergy, and cross-media convergence, TV content often saturates the media environment on a multitude of platforms.

Characters like Hannah Montana also reach beyond the United States. U.S.-based TV companies that create children's programming for their cable channels (i.e., Disney Channel, the home of Hannah Montana, and Nickelodeon), dominate the children's market in many countries, running more than thirty branded children's channels in Europe (Buckingham, 2007a). These US corporations work hard to reach audiences everywhere, as this quote from Bob Iger, CEO of Walt Disney, demonstrates: "reaching 'dramatically and deeply,…' has allowed Disney to, '...enter the hearts and minds of people all over the world" (Iger, 2007). Hence, the results of our historical content analysis may have international significance. Clearly, the online presence of these shows greatly magnifies their global presence.

Are successful teens portraying rich and famous lifestyles and values on television aimed at a young audience a new phenomenon? Has culture change in the United States expanded the importance of individualistic values on TV shows, notably fame and wealth, in recent years? Has it reduced the importance of communitarian

values? To answer these questions, we examined the values of the most popular American television shows targeted to tweens every ten years for the last five decades.

The Theoretical Framework

Greenfield's Theory of Social Change and Human Development posits that, as learning environments move towards high technology, as living environments become increasingly urbanized, as education levels increase, and as people become wealthier, psychological development moves in the direction of increasing individualism, while traditional, familistic, and communitarian values decline (Greenfield, 2009a; Lerner, 1958; Manago & Greenfield, 2011). According to the theory, socio-demographic shifts drive changes in cultural values, which, in turn, alter the learning environment; a changed learning environment, in turn, transforms individual development (Greenfield, 2009a).

In the United States over the last five decades, the environment has, in fact, become more urban (U.S. Census, 1990; U.S. Census Bureau, 2000) while household income has risen (ClearPictureOnline.com, 2008) and the rate of university attendance has climbed steeply (Brock, 2010). Although technology has developed and spread over the last fifty years in the United States (Howe, 2010), the rise has been particularly sharp over the last decade. In this period, the use and availability of the Internet and digital media have substantially grown (Rideout et al., 2010; Uhls et al., 2011). As such, media technologies have become an ever more important part of the informal learning environment (Greenfield, 1984; Greenfield, 2009b).

Greenfield's theory predicts that these sociodemographic shifts will produce ever more individualistic values, accompanied by a decline in communitarian values. A corollary is that these value shifts will be manifest in popular television shows that are a

key component of the learning environment of tweens. Because fame and personal wealth are highly individualistic values, we expected an increase in their portrayal on popular TV over the decades, along with a decrease in the portrayal of communitarian values such as community feeling and tradition.

While a belief in individualism is as old as the American nation, the belief began to move from the political into the personal realm in the 1960s (Yankelovich, 1998). Most relevant to the present study, Putnam, observing American behavior in the decades since the sixties, documented the augmentation of individualistic values and the diminution of communitarian values (Putnam, 2000). We thus chose to examine shows over a period of 50 years, as this design allowed us to examine television programming over an extended period of social change (Baumeister, 1987; Lasch, 1991). In contrast to most content analyses of TV programming aimed at children and youth, even the rare longitudinal study, (Browne, 1998; Byrd-Bredbenner, 2002), we wanted to investigate sociohistorical change in potential media influences.

The existence of such change was reinforced by survey evidence of cultural shifts in behavior and values in recent decades in the United States. For example, a meta-analysis of 85 samples of U.S. university students over a period from 1979 to 2006 revealed that narcissistic personality traits increased 30% (Bandura, 2001). In the same period of time, U.S. students gained a greater desire for money (Dey, Astin, & Korn, 1991; Twenge, Campbell, Hoffman, & Lance, 2010). Conversely, a meta-analysis of 72 studies from 1977-2009 revealed that empathy levels dropped over 40% with the biggest drop after the year 2000 (Konrath, O'Brien, & Hsing, 2010). The valuing of tradition has also decreased across the generations (Henrich, Heine, & Norenzayan, 2010; Rozin,

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2003). We expected these generational differences to be transmitted to tweens in the

informal learning environments of popular TV programs aimed at this audience and

omnipresent on the Internet.

Media Socialization During the Tween Years

A key developmental task during the tween years, age 9-11, is to form a belief system

that integrates the many messages communicated via a variety of socializing agents

including parents, school and media (Eder & Nenga, 2003; Harter, 1990). Social models

provided by the entertainment environment of mass media convey a large amount of

information about human values, styles of thinking, and behavior (Bandura, 2001).

Characters on TV influence people in a wide variety of domains including work (Hoffner

et al., 2006; Hoffner, Levine, & Toohey, 2008; Gerbner, Gross, Morgan, & Signorelli,

1979), moral values (Rosenkoetter, 2001) and family life (Gerbner, Gross, Morgan, &

Signorelli, 1980; Comstock & Paik, 1991). Pertinent to the present study, university

students in the U.S. identified more with TV characters perceived to have higher paying

jobs and higher status than with characters who held less glamorous jobs (Hoffner et al.,

2008). Accordingly, it is likely that tweens observing teenage characters with high status

jobs that emphasize public recognition and material success will aspire to be like these

social models.

Today, in the United States, young people spend more time using media than

nearly any other activity except sleep (Gunn & Donahue, 2008). The Kaiser study found

that, in 2009, American youth, age 8 - 18, spent an average of nearly seven and one-half

hours a day, seven days a week with media, defined as television, music, computer, video

games, print, and movies. Tweens especially love media (Rideout et. al, 2010).

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Marketers and television programmers correspondingly focus their efforts on this demographic, creating content and products that "speak" directly to tweens (Buckingham, 2007b). Given the media-saturated environment that many tweens live in, it is likely this milieu has a large influence on the development of value priorities (Rohan, 2000). It is thus critical to understand what messages are being communicated through media during this important period of late childhood and early adolescence when media use is so high.

A New Method for Content Analysis

While numerous content analyses have examined violence, sexual content and even physical affection in media targeted to children (Ward, 1995; Wilson et al., 1998; Calliser & Robinson, 2010), to our knowledge an assessment of the depiction of aspirational values in TV content has not been conducted. Values, often embedded in overall themes or in choices that characters make, are diffuse, implicit, and require personal interpretation; they are therefore difficult to quantify through categorizing discrete behaviors. For example, it would be rare for a character in a television show to declare, "I value such and such" or "I aspire to this." Content analysis methods traditionally interpret communication through categorization of molecular and discrete behaviors (Krippendorff, 2004). Testing a few coding schemes led to the conclusion that traditional content analysis would not work. Instead, we developed a new method that utilized a large sample of participants rather than a few researchers to assess the programs.

This method was also innovative in utilizing personality measures to assess content. We asked participants, recruited from online sites, to answer survey questions regarding how central, or important, certain values, drawn from a well-validated

personality index (Kasser & R. M. Ryan, 1996) were to textual descriptions of popular television shows for tweens. Our interest was in value priorities (i.e., the relative importance of each value in a list of aspirations) and how these priorities changed throughout five decades. We also utilized a list of desire-for-fame characteristics (Maltby et al., 2008) by asking participants if the main character in each show exhibited the characteristics. Again the interest was in how modeling a desire for fame in media content could have changed over the decades.

Hypotheses

Given our theoretical framework (Greenfield, 2009a), historical shifts in communication technologies, along with shifting sociodemographics, values, and behavior in the United States, led us to predict that fame, financial success, and other individualistic values would have become increasingly central in popular TV over the last fifty years, while communitarian values (e.g., community feeling, tradition) would diminish in importance over this same period of time. As a corollary to the predicted increase in the importance of fame, we also hypothesized that characters in the shows would manifest an increasing desire for fame over the decades, with the highpoint reached in 2007.

Method

Measures

Values. The list of values was culled from a personality index developed to measure a participant's personal aspirations (Kasser & Ryan, 1996). This scale, validated with both

adults and adolescents in over 17 countries, corresponds and builds upon Schwartz' list of value types (Schwartz & Bilsky, 1987). A total of 17 values were rated on a 4-point scale ranging from 1 (Not at all important) to 4 (Extremely important) with an additional choice of "Not applicable." Supplementary values not on the index were included, such as fame and achievement, in order to test the specific hypothesis in question. Each value also had a short description written by this study's first author. A full list of values, along with their description, is in Table 1.

Desire for Fame. To assess how much the main character in each show appeared to desire fame, we used a recently developed list of traits that individuals who desire to be famous are thought to exhibit (Maltby et al., 2008). The seven characteristics were ambition, glamour, meaning derived through comparison with others, psychological vulnerability, attention seeking, conceitedness, and social access. We added three additional qualities that we believed to be characteristic of those who desire fame: materialism, extraversion, and performing in front of others, making ten characteristics in all. The ten characteristics were rated on a 3-point scale: 1 Not at all present, 2 Somewhat present, and 3 Present. "Not applicable" was a fourth alternative.

Background Knowledge of Shows. After completing the evaluation of the shows, participants were asked how well they knew each of the tested TV shows. Participants had a choice of four answers: Don't Know Show, Watched Once, Familiar, and Avid Fan. This show-specific background knowledge was considered a control variable; we wanted to make sure that differences among the decades in value ratings were not a function of

differential show knowledge. From this measure, we could relate show knowledge to participant ratings, in hopes of ruling out program familiarity as a factor in the ratings.

Participants

A request was placed for survey participants on Craig's List, Facebook, and the Children's Digital Media Center@LA website for approximately six weeks. In this time period, a total of 60 adults living in the United States completed the questionnaires. Out of the forty two participants who provided their gender, twenty six were female. Of the twenty-one who provided information about their ethnicity, seventeen were European American while the remaining four were African American, Asian American, Native American, and Latino, with one from each ethnic group. Forty-one participants indicated their age and of these, the average age was 39, with a range of 18-59 years, with seven under 25, seven between 25-35, 13 between 36-45 and 14 over 45. Because of this age range, our sample included participants who grew up, and even were tweens, in most of the decades from which shows were drawn; hence, familiarity with the tested TV shows was not concentrated in a single decade, but distributed rather evenly over the decades being assessed.

Sampling Shows

For each of five decades, we selected the two most popular shows in a given year for the tween audience in the United States, as judged by Nielsen ratings. Popularity was considered a good index of cultural significance. Nielsen ratings were obtained for 1967, 1977, 1987, 1997, and 2007. Selecting two TV shows per decade for five decades yielded a total of ten shows. Table 2 lists the ten TV shows and the sources of the Neilsen ratings.

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For the first two decades, ratings for popular shows were not broken down by age, but, because at this point in history, families usually owned only one television; thus the likelihood was that tweens watched the shows with their parents. For the last three decades, as televisions multiplied in households and audiences became more segmented (Xlane and The Economist, 2009), Nielsen ratings were available for the tween age group. The TV programs selected as stimuli (1) were the most popular ones with youth from 9 to 11 years of age (this was the age breakdown offered by Neilsen for the last three decades) and (2) aired for more than one season, in order to assess popular programming that represented more than a single year out of the decade sampled.

Construction of the Surveys

We located textual summaries on the website TV.com, the largest database we could find about TV programming, of every measured show over the fifty-year time period. Participants were provided two descriptions for each TV show: the first textual description, ranging from 125-300 words, described the show over its entire run of several seasons; the second textual description, ranging from 200-800 words, summarized one sample episode on one particular date. The episode chosen was the first with a full description (i.e. more than two sentences) in the year measured. The full show and episode descriptions are available on http://www.tv.com by searching for the show title. Unfortunately, space precludes presenting the full set of stimuli that were made available to our participants. However, Table 3 provides a sense of the stimuli by presenting the global show description and description of the episode selected for the study for one 2007 show, American Idol.

Textual descriptions of the TV series plus one episode from each show constituted the most ideal set of stimuli because this procedure eliminated the repetition that would have occurred had we asked a few research assistants to assess a whole season of shows. Such repetition would have made independent judgments of each episode impossible. By shortening the amount of time required to assess the shows, our method also allowed us to base assessments on 60 raters rather than just a few research assistants.

After pilot testing one survey with textual descriptions of all ten shows, we determined that the survey would take too long and that most participants would abandon the questionnaire before finishing. We therefore divided the survey in half, randomly drawing one show from each decade for Survey 1 and utilizing the remaining show from the same decade for Survey 2. The descriptions of the shows and their corresponding episodes, were placed in random order on each survey (i.e. not ordered according to time). Thus each survey was exactly the same except for the specific shows (see Table 2 for a list of shows in each survey). Because each survey utilized a different TV program from the same year, we felt that the same pattern of results replicated across the two surveys could provide greater generalizability of the findings than one survey alone.

Procedure

The recruitment statement posted online offered participants the chance to be entered into a drawing for five DVDs in exchange for taking the survey. Each participant was randomly offered one of the two surveys. After clicking on a link to the survey, the participants read an informed consent form; they indicated assent by continuing with the survey. They then were asked to read textual descriptions of the five shows, as well as

one episode description per show, and to answer the questions with the information they were given. Given that we could not control whether a participant used prior knowledge of a particular show and that this knowledge could enrich understanding of a program's conveyed values, we told participants that they could draw on this knowledge, if available, to answer the questions. We later measured this knowledge in order to assess its impact on the ratings.

After reading the show and episode descriptions, participants were asked the same four questions about each of five shows, one from each decade; two questions were free-form text boxes and two were fill-in-the-bubble Likert scales. The first text box asked participants to write what they believed to be the main theme of the program; the next text box asked the same question about the specific episode described. These questions were intended to help the participant to think critically about the show. The next question asked participants to rate how important each of 17 values were to the show; if they did not feel that the value was relevant, they were given the option to answer "Not applicable." The last question asked them to consider the same show and episode descriptions to indicate how central each of a list of 10 personality characerics was for the main character or group of main characters. After answering these questions about each of the five shows, participants were asked how familiar they were with the ten measured TV shows. Finally, basic demographic data were collected. Participants were then thanked for their help and told to email the researcher if they wanted to be entered into the DVD drawing.

Analysis

We combined data from the two surveys for each year in the five decades (i.e. two TV shows from 1967 represented 1967 and so on) and ranked the values in order of importance for each year. Given our interest in value priorities, that is, how important each value was compared to the other values on the list, we controlled for individuals' yearly grand means, by measuring the difference between each individual value rating and that individual's grand mean for the decade.

Unfortunately, due to a problem with the survey platform, participants' ratings for the importance of universalism in the 1967 show on Survey 2 were missing, so this variable was not used in the analyses. The relative mean importance for each of the remaining 16 values was then ranked from furthest above individuals' yearly grand mean to furthest below for each decade (i.e. how far above or below each value was relative to the participant's average for that year).

To test for significant differences between the decades, we ran a repeated-measures analysis of variance that treated decade as a five-level independent variable (i.e. each year represented a level) and survey (Survey 1 or 2) as a between-subjects variable. Participants' absolute rating of importance for each value under consideration was the dependent variable. If the participant answered "Not applicable," this answer was treated as missing data and left out of the analysis. In cases where we found a significant interaction between survey and decade, we ran a separate ANOVA for each survey.

For the characteristics indicating a character or characters' desire for fame, as with the values, we carried out a repeated-measures analysis of variance, treating decade as a

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five-level independent variable and survey (Survey 1 and 2) as a between-subjects

variable. The dependent variables were the seven characteristics identified by Maltby et

al. to measure a person's implicit desire to be famous and the three variables we added:

materialism, extraversion, and performing in front of others; a separate analysis was

carried out for each characteristic. In cases where the interaction between survey and

characteristic was statistically significant, we also examined the main effect of decade for

Survey 1 and 2 separately, as we did for the value analysis. If the main effect of decade

was significant for each individual survey, we concluded that the effect of decade was

robust and not affected by which survey the participant took.

Results

Value Change in Popular Tween Television from 1967 to 2007

As predicted, fame, financial success, and other individualistic values, notably

achievement, rose in importance across the decades. Fame, the main focus of the study,

made the most dramatic shift. Table 4 shows that fame rose from the bottom of the value

rankings in 1967 (number 15 out of 16) to the top value in 2007. Financial success also

rose in importance, as predicted; it was ranked 12th in 1967, rising to fifth in 2007. Two

other individualisitic values showed a major increase in relative importance:

Achievement rose from tenth place to second place across the decades, while physical

fitness moved from sixteenth place to ninth place. In contrast, communitarian values, as

predicted, declined in relative importance over time. Three communitarian values –

community feeling, tradition, and benevolence – showed sharp declines in relative

importance from 1967 to 2007 (Table 4). Community feeling started out as the top-

ranked value in 1967 and fell to number 11. Tradition was ranked fourth in 1967 and fell

to 15th place in 2007. Benevolence went from second place to 12th place across the

decades. Of all the values assessed, these three showed the largest decline in relative

importance from 1967 to 2007.

Figure 1 provides a graphic example of this pattern. It shows how community

feeling, the value that was top in 1967, and fame, the value that was top in 2007, flip in

2007, with fame for the first time above the yearly grand mean and community feeling

below.

In order to assess the statistical significance of the historical change in the relative

importance of values, we carried out repeated measures analyses of variance. Here the

dependent variable switched from relative rankings to absolute ratings in order to have

scores that could be compared across time. The increasing relative importance of the

individualistic values of fame, financial success, achievement, and physical fitness shown

in Table 4 was confirmed by statistically significant changes over time revealed in the

repeated measures ANOVA (Table 5). Similarly, the declining importance of the

communitarian values of community feeling and tradition shown in Table 4 was

confirmed by statistically significant changes over time revealed in the repeated measures

ANOVA (Table 5). These five variables showed significant change over time not only as

a main effect (both survey forms together) but also for each survey individually, even

when there was a significant interaction of survey and decade. Benevolence showed

significant overall decline over the decades, but there was a significant interaction

between survey and decade, and the change was statistically significant only for Survey 1.

Historical Change in Main Characters' Desire for Fame in Tween Television from 1967 to 2007

Historical change in the seven traits from Maltby et al.'s (2008) desire-for-fame list (ambition, comparison to others, attention seeking, conceitedness, social access, psychological vulnerability, and glamour), as well as our three added dimensions (materialism, extraversion, and performing in front of others) was assessed across the five decades. Participants answered if the quality was present, somewhat present, or not at all present, in the main character or group of characters, with an option for "not applicable." Confirming our hypothesis, participants rated each component of desire for fame most present in 2007 (Table 6).

Repeated measures analysis of variance showed that, for nine of the ten personality traits, the change was statistically significant across the decades, in both the combined surveys and each survey individually (Table 7). In accord with our hypothesis, desire for fame was considered most present in the main character or group of main characters in the 2007 shows than in shows of past decades.

Control Analyses: Age and Show Knowledge

To see whether differential show knowledge on the part of different cohorts might have accounted for the results, we first correlated age and show knowledge for each decade. (Show knowledge in this analysis was an average of the two shows rated in each decade.) There was a significant correlation between age and show knowledge for every

decade except the most recent, a decade in which every age group could potentially have equal access to the shows. For the older shows (1967 and 1977), the correlation was positive (1967: r = .595, p < .001; 1977: r = .451, p = .003, two-tailed tests), indicating that older participants had greater knowledge of the shows from the two earliest decades. For the newer shows (1987 and 1997), the correlation was negative (1987: r = -.333, p = .033; 1997: r = -.398, p = .010), indicating that younger participants had greater knowledge of the shows from later decades.

Because age affected show knowledge, which might, in turn, affect value ratings, we correlated age with ratings of all of the values in every decade that had shown significant changes over the decades: fame, financial success, achievement, physical fitness, community feeling, and tradition. There were a only a few significant correlations: fame ratings were negatively correlated with age in 1977 (r = -.351, p = .031) and 1987 (r = -346, p =.039), indicating that younger participants gave higher ratings to the fame value in these two measured years. Achievement ratings were negatively correlated with age in 1967 (r = -.377, p = .015), indicating that younger participants gave higher ratings to the achievement value for this decade. Similarly, ratings of physical activity were negatively correlated with age in 1967 (r = -.501, p =. 002), indicating that younger participants gave higher ratings to physical activity. In order to be conservative, we then used age as a covariate in the analyses of these three values, fame, achievement, and physical activity, and reran the repeated measures analyses of variance with age as a covariate. The historical rise in the presence of fame, achievement, and physical activity, shown in the repeated measures analyses reported above and also in

Table 5, remained significant, and there were no significant interactions with age in the repeated measures analyses of covariance for ratings of these values.

We also took another approach to considering whether historical differences in show knowledge could be driving the historical changes in program values our participants identified in tween television. The pattern over the decades for show knowledge is presented in Figure 2. This pattern differs from the historical pattern for either the individualistic or the communitarian values portrayed on popular TV shows. Compared with other decades, 2007 is in the middle of the range for show knowledge (i.e. greater knowledge of the 1967 and 1977 shows than of the 2007 shows; less knowledge of the 1987 and 1997 shows than of the 2007 shows). In contrast, the 2007 shows are at the extremes of the historical distributions for the variables of interest: individualistic values have their greatest importance in 2007, while communitarian values have their lowest importance. These discrepant distributions of show knowledge and the variables of interest provide additional evidence that the findings concerning value change over the decades cannot be attributed to differential show knowledge.

Discussion

Historical Change in Portrayed Values and in Sensitivity to those Values

The results confirmed our hypotheses. Fame became more important in tween television over time, going from number 15 or 16 in every other decade to first in 2007. There was also evidence in the correlations of fame ratings with age that younger cohorts were more attuned to the value of fame in a given situation than older ones: for the 1977 and 1987 shows, younger participants rated fame as a more important value than did

older participants. This is an example of what Markus and Kitayama (1997) conceptualize as the mutual constitution of culture and psychological processes. That is, the newest television shows are cultural products that embody and portray the value of fame; and, at the same time, the interpretive processes of younger participants, exposed to this type of cultural product at more impressionable ages, project the value of fame on older television shows more so than do older participants, who have not been exposed to cultural situations emphasizing fame so early in life. The same kind of analysis is applicable to the two other individualistic values, achievement and physical activity, in which there is not only an historical rise over time in their cultural importance, but also a significant tendency for younger cohorts to be more attuned to these values. Thus not only do the values embodied in television shows change over the decades, but also the people watching them evolve in consonant directions.

Community feeling was ranked as one of the most important values in popular TV shows for every decade except 2007, when it was ranked eleventh out of 17. This reversal in the importance of the two values paints a picture of fairly dramatic change in 2007 in value priorities as depicted in Figure 1. As predicted, financial success showed the same pattern as fame, although the increase in 2007 was not as sharp. Similarly, other communitarian values - benevolence and tradition - showed the same pattern as community feeling, with a sharp drop in importance between 1967 and 2007.

Overall, the pattern of results provides new empirical support for Greenfield's (2009a) Theory of Social Change and Human Development. The theoretically based prediction was that the importance of fame, wealth, and other individualistic values in tween television in the United States would rise as the society became richer, more

urbanized, more educated, and more technological; however, the rise did not follow the gradual rising pattern of the first three of these sociodemographic variables in these decades. Nor did the predicted decline in communitarian values show a gradual decline through the decades. Instead, there was stability in the relative importance of these values between 1967 and 1997, followed by sudden shifts in the decade between 1997 and 2007. These shifts were correlated with the explosion of communication technologies from the late 1990s into the new millennium. This temporal correlation gives rise to the possibility that technology was the most important cause of these changes in value priorities.

What is the evidence for the explosion of technology during this time period? From 1999 to 2009, children's access to home Internet doubled to a penetration of 84%, as did access to high-speed Internet. Ownership of digital devices also grew rapidly, with ownership of an Ipod or other MP3 player increasing fourfold to 76% (Rideout et al., 2010). These changes are not isolated to the United States: home access to the Internet was recently reported in the European Union for 85% of children, age 9-16 (EU Kids Online, 2010). Internet access and ownership of digital devices were not the only changes in the learning environment due to technological advances. New, rapidly growing applications such as YouTube, MySpace and Facebook were created within the last decade (Uhls et al, 2011; Xlane and The Economist, 2009). These sites grew rapidly; two billion videos a day are watched on YouTube around the world, and Facebook currently has 500 million users (Uhls et al., 2011). On these kinds of website, one can broadcast oneself to an invisible audience - totally anonymously on YouTube; and filled with "friends," many of whom are but casual acquaintances, on Facebook. Indeed, social networking sites give emerging adults the potential for and, often, subsequent aspirations

for a larger audience (Xlane and The Economist, 2009; Manago, Graham, Greenfield, & Salimkhan, 2008). An ethnographic study of youth practices with new media found that today's youth are quite familiar with the concept of the YouTube celebrity, and discourses of fame exist around new media technologies (Ito et al., 2009), while a recent focus-group study with tweens found that fame had become the number-one aspirational value, in comparison to others studied in the present research (Uhls & Greenfield, under revision).

The Trend Continues

The trend we identify in the present quantitative study has continued with more recent television programs aimed at this same age group: in Big Time Rush, which debuted in 2009, a group of Minnesota teens are discovered and then become the latest chart-topping boy band; in True Jackson, which debuted in 2008, a fifteen year old girl is the vice president of a fashion company, replete with office, assistant and expense account. In addition to True Jackson, six other of the top ten television shows for age 9-14 in 2009 feature teenage characters with successful careers in different arenas such as television, music, and fashion (about.com, 2011). In 2009, an article in the Los Angeles Times suggested that the majority of fictional programming targeted to tweens focuses on the lure of achieving celebrity at a young age (Martin, 2009). It is worthwhile to note that all of these shows have aired since the data were collected for this study. In an even more recent example, a recently announced American reality TV show, hosted by the former American Idol judge Simon Cowell, will offer contestants as young as 12 the chance to compete for a $5 million dollar recording contract (Kaufman, 2011).Moreover, the success of these adolescent characters includes other arenas such as the Internet. For

example, one of the most popular current shows is iCarly, about a teenage girl who lives alone with her older brother and who runs a very popular web show with her best friend. Nor is this kind of content restricted to television. Indeed, iCarly is in part a tween reality show, featuring an online podcast talent show to which the audience can submit their own segments. In addition, with popular video games such as Guitar Hero, where one's avatar is a rock star, or on-line sites such as Stardoll.com, where the site states what it is about under its logo – "fame, fashion and friends", content developers are providing tools with these types of message embedded in the design.

Television content providers may believe that they are merely reflecting the day-to-day values and desires of children as this quote by Dan Schneider, creator of the popular tween shows iCarly and Victorious, indicates: "If there is anything I've learned about kids today -- and I'm not saying this is good or bad -- it's that they all want to be stars" (Martin, 2009). Yet, like the debate over nature and nurture, the likelihood is that TV content and cultural values interact and affect each other. In either case, media content providers must be cognizant of the messages they are sending young people, and research must continue to describe objectively what the content portrays.

Limitations of Current Study

This study examined only one year in each decade. In order to be certain that the results truly represent each decade, it would be ideal to test more shows per decade, spread out over several years. Given that it was already difficult to have participants answer questions about just five shows without abandoning the survey, it may be difficult to achieve reliable results without participant fatigue. However, note that the two shows

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most popular in 2007 were still popular in 2009. It is entirely possible that the popularity of shows representing the other decades also had longevity beyond the two years required for inclusion in the survey.

Future Directions

Given that values for fame are indeed prevalent in popular TV and furthermore that a lifestyle of enormous success, wealth and renown is depicted as normative for adolescent characters, research must explore how this could affect development. Therefore, our future research will examine the developmental implications of this focus on fame and other extrinsic aspirations in this important learning environment. It is one thing to know that the content has changed, but until one measures the target audience and begins to examine how they interpret the messages in these programs, it will be difficult to know if and how youth values are affected. A full program of research, using methods such as qualitative focus groups, correlational surveys, and experimental manipulations, would be ideal fully to explore the mechanisms involved. We have begun on this path with a focus-group study of tweens (Uhls & Greenfield, under revision) This study also expands the consideration of fame-oriented media practices to YouTube, perhaps the most important media tool promoting the value of fame to children and tweens.

Once designed, the method created for this content analysis was relatively easy to administer and could take advantage of the relatively easy recruitment of undergraduate participants. This method could be used for a number of other content analyses examining many different thematic arenas portrayed in media. For example, how is

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academic learning portrayed in popular shows?   If research found that school was portrayed as boring, or exciting only for children who were not popular, this portrayal might have a negative influence on academic motivation for many children.

Implications

The changes in multimedia content and the possibilities for the interactive construction of fame on YouTube may have a measurable impact on the goals and desires of emerging adults. Reynolds et al (2006) tracked changes in high school students' educational and occupational plans over twenty-five years and found that in the later decades, senior students' ambitions outpaced what they were likely to achieve (Reynolds, Stewart, MacDonald, & Sischo, 2006); fame may be one of those ambitions. In so far as fame in and of itself is an unrealistic ambition disconnected from academic achievement, it could undermine motivation to succeed in school and thus result in dissatisfaction later in life (Buckingham, 2007a; Kirst & Venezia, 2004). Moreover, aspirations for material wealth and fame have been found to correlate with lower well-being (Kasser, Ryan, Couchman, & Sheldon, 2004; Kasser & Ryan, 1993; Kasser & Ryan, 1996). Future research can subject these implications to empirical test.   Children during the preadolescent and adolescent years are wrestling with moral and identity development (Hart & Gustavo, 2005; Massey, Gebhardt, & Garnefski, 2008). Media, ever prevalent in the lives of today's youth, are an important source of information for their developing concepts of what the world outside their immediate environment is all about. However, early adolescents are not watching characters in everyday environments; instead they are watching and likely identifying with youth who have enormously successful careers to the point of becoming famous. If tweens observe characters they admire succeeding and

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achieving wide public recognition and material success with little effort or training, they are likely to believe that this success is entirely possible and easy to achieve. This is an important issue for future research.

Author Note

ASPIRATION	DEFINITION
Self-Acceptance	To accept oneself
Community Feeling *	To be part of a community
Financial Success	To make money
Physical Fitness	To be in shape
Popularity	To have everyone like him or her
Image *	To uphold reputation
Fame	To be famous
Power	Being in control of others
Achievement	Being very successful
Hedonism	Seeking pleasure as a number-one priority
Universalism *	Everything being connected
Benevolence	Being kind/ helping others
Tradition	Doing things as in the past
Conformity	Doing the same as everyone else
Security	Being safe
Spiritualism	Looking for meaning beyond oneself
Self Centered	Focused on self as center of everything

Table 1 List of Measured Aspirations
Note: List of values culled from Kasser and Ryan Aspiration Index (1996a). Definitions written
by first author. In cases with stars, definitions are somewhat different than those used for the
Aspiration Index.

	1967	1977	1987	1997	2007
Survey 1	Andy Griffith	Laverne and Shirley	Growing Pains	Sabrina the Teenage Witch	American Idol
Survey 2	The Lucy Show	Happy Days	Alf	Boy Meets World	Hannah Montana

Table 2
Shows Measured

Note: Source of Nielsen ratings: 1967 and 1977: wikipedia.com and fiftiesweb.com; 1987 and 1997: CBS records; 2007: usatoday.com and cable360.net.

AMERICAN IDOL - 2007	SHOW SUMMARY: This is **American Idol** the musical reality series following three judges, Simon Cowell, Randy Jackson (II), Paula Abdul,and as of season 8,Kara DioGuardi, along with host Ryan Seacrest around the United States in search of the next American Idol, a pop star that truly shines above all the rest. With help from the viewers, they will decide from thousands of participants who will walk away with a record deal and the fame and fortune that is sure to come along with it. American Idol was started as a spinoff of Pop Idol, a U.K. series with the same general format and also featuring Simon Cowell as a judge. It has since emerged as hit series in its own right, propelling FOX to the top of television rankings, inspiring various merchandise, and launching the careers of many hit-stars. This show also lead to a short-lived spinoff with younger singers called American Juniors. SAMPLE EPSISODE: Her name is Jessica, who in real life is a makeover artist transforming the common woman into a sultry sexy number. Tonight she wanted to impress the judges who I call "The Bad Four", that is: Simon, Paula, Randy and Jewel. Tapping into a deep inner peace, Jessica consciously calmed her jumpy nerves as she prepared to perform. But she didn't have the "it." And then there was Jesse. During his audition, he dashed out for a sip water, but all three of his sound bites were flatter than a Plasma TV. During his exit interview, he blamed the judges for not appreciating his singing abilities. Denise dazzled the judges with voice, strength and determination. With a gold pass in her hand, she is flying to Hollywood . She came to America with two teddy bears and a guitar. But more than that, she came with a dream. A dream that somewhere someday she would be a singer. And tonight Columbian Perla earned herself a ticket to Hollywood where her dreams may come true. cowboy hat and silver belt buckled Mathew was quickly gunned down. Navy specialist Jarrod. He made it on to Hollywood. He is representing the sailors of USS Ronald Reagan Strike Group. How about the good hearted boss who flew his secretary, Dana and her sister from California just for her one and only shot. But Dana who dazzles the office staff didn't dazzle The Bad Four. And no matter how much we wish we could, we cannot get the frightening sight of Jason's singing while juggling two feathered sticks. When done with that, he did a tap dance. Oh well. Self-proclaimed "I'm American Idol's super biggest fan" Brenna yelped and barked her way through some words. Finally we had Josh, a rocker with his own band. Given a second chance to impress The Bad Four that he was more than a one-dimensional growler, he failed.

Table 3 Sample of stimuli for a 2007 show Source: TV.com

Value	1967		1977		1987		1997		2007	
	Means	Rank	Means	Rank	Means	Rank	Means	Rank	Means	Rank
Fame	-0.44	15	-0.42	13	-0.59	15	-0.44	15	1.07	1
Achievement	-0.08	10	-0.45	14	0.12	8.5	-0.08	10.5	0.97	2
Popularity	0.39	5	0.46	5	0.25	7	0.39	6	0.87	3
Image	0.64	3	0.64	2	0.32	4	0.64	3	0.83	4
Financial Success	-0.16	12	-0.48	15	-0.14	10	-0.16	12	0.77	5
Self Centered	-0.05	9	-0.14	10	0.53	3	-0.05	9	0.73	6
Power	-0.08	11	-0.17	11	0.38	5	-0.08	10.5	0.49	7
Self Acceptance	0.45	6	0.58	3	1.06	1	0.59	5	0.04	8
Physical Fitness	-0.91	16	-0.36	12	-0.59	16	-0.91	16	-0.03	9
Hedonism	-0.33	14	0.08	9	-0.30	13	-0.41	14	-0.06	10
Community Feeling	1.20	1	0.93	1	1.01	2	1.20	1	-0.10	11
Benevolence	0.67	2	0.39	7	0.38	6	0.67	2	-0.26	12
Conformity	0.06	8	0.43	6	-0.33	14	0.06	8	-0.79	13
Security	0.31	7	0.27	8	0.12	8.5	0.31	7	-0.96	14
Tradition	0.59	4	0.52	4	-0.20	11	0.58	4	-0.99	15
Spirtualism	-0.33	13	-0.53	16	-0.22	12	-0.33	13	-1.03	16

Table 4

Rankings of Values by Decade, Ordered According to 2007 Ranks.

Note: Data originally rated from 1 (not at all important) to 4 (extremely important).
Means represent distance from grand mean for each decade.

Table 5
Repeated Measures Analysis of Variance: Values

| | Combined surveys | | | | Survey 1 | | Survey 2 | |
| | Decade | | Interaction of survey and decade | | Decade | | Decade | |
Value	F(df)	p	F(df)	p	F(df)	p	F(df)	p
Fame	69.2(4,104) n=28	.000	5.0(4, 104)	.001	42.9(4, 52) n=14	.000	31.9(4, 52) n=14	.000
Achievement	37.0(4, 148) n=39	.000	8.5(4, 148)	.000	24.2(4, 72) n=19	.000	20.9(4, 76) n=20	.000
Financial success	33.3(4, 128) n=34	.000	20.0(4, 128)	.000	31.1(4, 60) n=16	.000	23.1(4, 68) n=18	.000
Physical fitness	13.7(4, 104) n=28	.000	2.0(4, 104)	.108	6.9(4, 48) n=13	.000	8.7(4, 56) n=15	.000
Community feeling	7.6(4, 144) n=38	.000	6.5(4, 144)	.000	10.2(4, 76) n=20	.000	4.4(4, 68) n=18	.003
Benevolence	29.0(4, 128) n=34	.028	8.1(4, 128)	.000	12.8(4, 68) n=18	.000	.7(4, 60) n=16	.613
Tradition	11.6(4, 128) n=34	.000	7.0(4, 128)	.000	6.6(4, 72) n=19	.000	11.8(4, 56) n=15	.000

Note: *N* varied from value to value due to missing data.

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Table 6

Ten Dimensions of Fame: Rise in Importance from 1967 to 2007

Value	1967		1977		1987		1997		2007	
	M	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*
Ambition	1.54	0.71	1.57	0.75	1.68	0.77	1.88	0.87	2.73	0.49
Comparison to others	1.90	0.69	2.00	0.76	2.22	0.72	2.18	0.69	2.65	0.60
Attention seeking	1.92	0.87	2.13	0.75	2.13	0.81	1.82	0.75	2.90	0.31
Conceitedness	1.60	0.74	1.78	0.70	2.00	0.82	1.68	0.79	2.59	0.70
Social access	1.71	0.82	2.00	.084	1.60	0.74	1.88	0.80	2.88	0.39
Psychological vulnerability	1.81	0.79	2.11	0.71	2.32	0.75	2.18	0.72	2.45	0.65
Glamour	1.63	0.73	2.00	0.82	1.43	0.77	1.72	0.78	2.88	0.33
Materialism	1.52	0.77	1.89	0.85	1.76	0.82	1.70	0.76	2.57	0.65
Extraversion	2.35	0.73	2.35	0.73	2.05	0.79	2.04	0.84	2.78	0.47
Performing in front of others	2.00	0.85	2.15	0.79	1.73	0.78	1.80	0.81	2.94	0.24

Note: Ratings of presence of characteristic from 1 (not present) to 3 (present).

Table 7

Repeated Measures Analysis of Variance: Importance of Ten Dimensions of Fame for Main Characters

| | Combined surveys | | | | Survey 1 | | Survey 2 | |
| | Decade | | Interaction of survey and decade | | Decade | | Decade | |
Value	F	p	F	p	F	p	F	p
Ambition	31.2	.000	10.1	.000	30.2	.000	13.0	.000
Comparison to others	9.3	.000	3.5	.001	13.2	.000	1.3	.278
Attention seeking	24.0	.000	10.3	.000	15.5	.000	9.7	.000
Conceitedness	19.7	.000	11.2	.000	32.9	.000	3.6	.009
Social access	34.5	.000	5.8	.000	25.0	.000	16.0	.000
Psychological vulnerability	8.4	.000	8.2	.000	12.3	.000	4.7	.002
Glamour	39.7	.000	5.6	.000	24.3	.000	21.1	.000
Materialism	18.3	.000	11.8	.000	24.4	.000	7.1	.000
Extraversion	10.7	.000	2.0	.096	5.6	.000	8.0	.000
Performing in front of others	39.8	.000	7.9	.000	23.2	.000	24.7	.000

Note: Ratings of the importance of ten dimensions of fame for main characters from 1 (Not at all present) to 3 (Present). For combined surveys and interaction: $N = 44$; $df = 4, 168$; for Survey 1: $N = 23$, $df = 4, 88$; for Survey 2: $N = 21$, $df = 4, 80$.
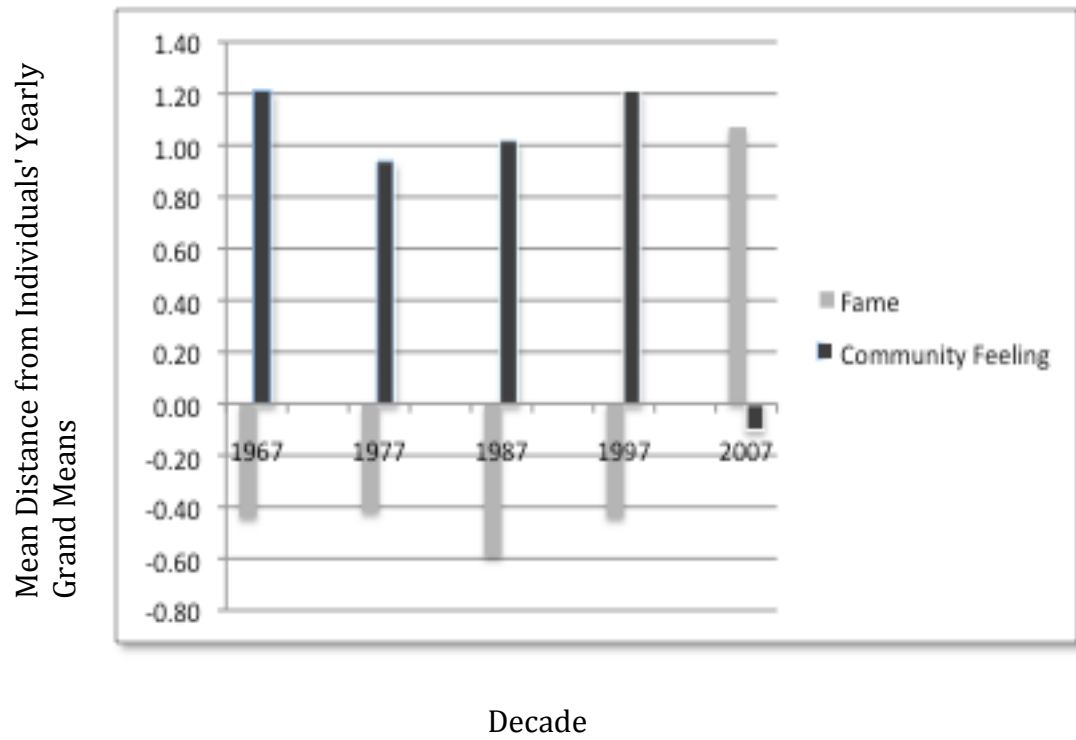
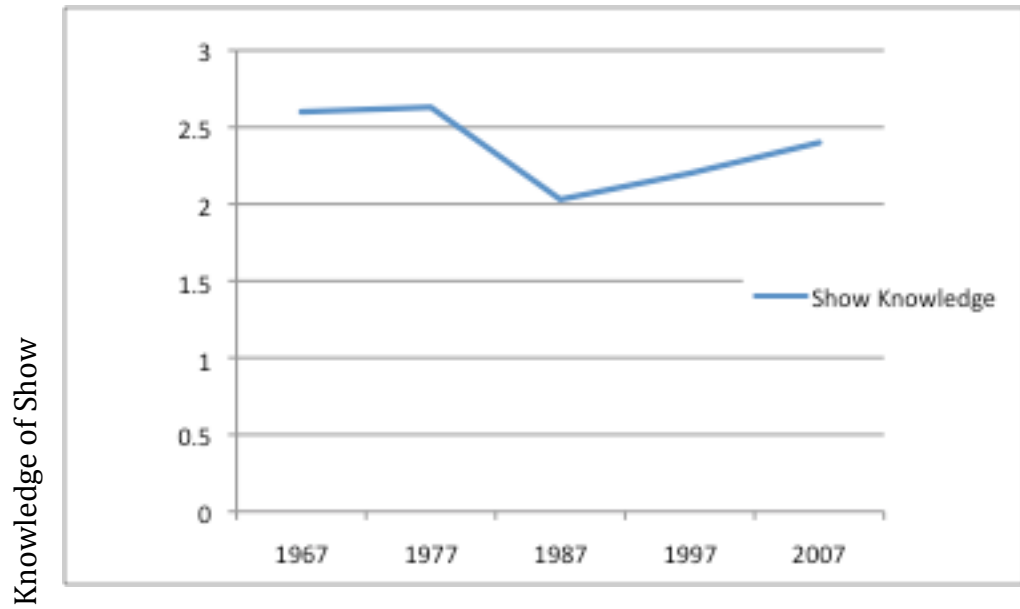Figure 1. Distance from yearly grand mean across five decades: fame and community feeling.

Figure 2: Ratings of show knowledge across five decades, from 1 (Don't know show) to

4 (Avid fan).

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The Value of Fame: Preadolescent Perceptions of Popular Media and Their Relationship to Future Aspiration (as submitted for publication)

Abstract

In line with Greenfield's (2009) Theory of Social Change and Human Development, current popular preadolescent TV shows suggest that fame, an individualistic goal, is an important and achievable aspiration (Uhls & Greenfield, 2011). Such messages may be particularly salient for preadolescents, ages 10 to 12. This study used focus groups and mixed analytic methods (qualitative and quantitative) to examine how popular media, passive and interactive, are interpreted by preadolescents and how their interpretations relate to their media practices and future goals. Quantitative analysis revealed that fame was the number-one value, selected as the most important value for participants' future goals significantly more frequently than expected by chance. Qualitative analysis of focus-group discourse suggested that (1) youth absorb messages in their media environment regarding fame as a future goal and (2) their interpretations of these messages highlight the importance and value of public recognition. Enacting the value of fame, the majority of preadolescent participants use online video (e.g., YouTube) to seek an audience beyond their immediate community.

In this paper, we provide evidence that the value of becoming famous is the major aspiration of children from ten to twelve years of age. Our theoretical framework is Greenfield's (2009) Theory of Social Change and Human Development, with which we begin. Next, we review both TV and interactive media, showing how these media have, in recent years, come to model and encourage both the value of fame and its expression in the public display of self. Placing our study in historical context, we conclude our introduction with evidence that adolescents and young adults have, over the decades, become more focused on the self, unrealistically ambitious, and oriented towards material success – all individualistic values that resonate with the value of fame. Our data come from focus groups concerning children's experiences with television and interactive media, notably YouTube and social networking sites. We examine the focus-group discussions for evidence related to the twin desires for fame and for an audience.

The Theoretical Framework

Greenfield's Theory of Social Change and Human Development (2009) predicts that, as learning environments move towards more complex technology, as living environments become increasingly urbanized, as education levels increase, as commerce develops, and as people become wealthier, psychological development should move in the direction of increasing individualism. As a value system, individualism prioritizes the independent action of the individual, as well as the development and expression of individual character and personality (Stein & Urdang, 1966; TheFreeDictionary, n.d.)

According to the Theory of Social Change and Human Development, sociodemographic shifts drive changes in cultural values, which in turn alter the learning environment; a changed learning environment in turn transforms individual development.

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There is accumulating empirical evidence that individualistic values and independent behavior augment with increases in urbanization, formal education, commercial activity, and technological development (Greenfield, 2004; Greenfield, Maynard, & Martí, 2009; Manago & Greenfield, 2011; Uhls & Greenfield, 2011). For example, in a Maya village, the influence of commercial activity transformed weaving apprenticeship; learners became more independent as the function of weaving changed from clothing the family (subsistence) to participation in textile commerce (e.g., selling one's weavings) (Greenfield, Maynard, & Childs, 2003). In the area of technology, the development of a local taxi service in the same village increased independent action by allowing both passengers and drivers to travel in private rather than group vehicles (Greenfield, 2004). When one is able to satisfy needs – e.g., shopping – by interacting with the Internet, one is able to function more independently of other people.

Over time in the United States, the population has, in fact, become more urban, more educated, and wealthier (Bureau of the Census, 1943, 1983, 1992; ClearPictureOnline.com, 2008; U.S. Bureau of the Census, 1983, 2004; U.S. Census Bureau, no date). However, the most rapidly changing sociodemographic element in recent decades has been communications technology, especially the Internet. In the United States, the population using the Internet grew 157% between 2000 and 2011 (Miniwatts Marketing Group, 2011). For young people age 8 to 18, computer use has grown 300% in the last decade, increasing from less than one half-hour a day to nearly one-and-a-half hours a day (Rideout, Foehr, & Roberts, 2010). According to Greenfield's theory, although each sociodemographic element is in principle equipotential, the element undergoing the most rapid change in a given period becomes

the driver of value transformation and shifting developmental trajectories (Greenfield, 2009). At present, in the U.S., this element is interactive communication technologies.

According to the theory, the increased development and spread of these communication technologies should drive cultural values and learning environments in an individualistic direction. A desire for fame, the focus of this study, is by definition a strong manifestation of an individualistic value system. It represents the extreme of wanting to stand out, an accepted component of individualism (e.g., Owens, 2008). For present purposes, our definition of a desire for fame is motive or behavior to seek either positive or negative public recognition on a large scale beyond one's immediate network of friends, community and family, independent of accomplishments in a specific endeavor.

The synergistic relationship among wealth, individualistic goals, technology, and a desire for fame emerges in cross-cultural data. Adolescent boys from the wealthiest countries (United States, Netherlands, Norway, and Switzerland) draw their ideal man as a man relaxing or playing sports – enjoying personal pleasures, a component of an individualistic value system. In contrast, boys from poorer countries such as Sri Lanka typically draw their ideal man as a man with adult responsibilities such as work (Gibbons & Stiles, 2004). Most relevant here, "The heroes for the boys from the wealthy countries tended to be sports stars and media celebrities" (Gibbons & Stiles, 2004, p. 227). The authors attribute this phenomenon to the high media exposure of teen boys from wealthy countries. Exposed to video games, television, and action films, boys from wealthy countries become impressed by fame. While there may be a small number of famous people in poorer societies that emphasize extended family rather than the individual

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(Greenfield, 2009), the phenomenon at issue here is the mass diffusion of this goal and its early socialization through mass media.

The Historical Transformation of Media as Learning Environments

In the United States, television, the most popular medium with children and adolescents and a potent influence on attitudes and behavior (Bandura, 2001; Rideout, Foehr, & Roberts, 2010), is a learning environment whose nature has shifted as communication technologies have expanded. As predicted by the Theory of Social Change and Human Development (Greenfield, 2009), central values portrayed on the most popular preadolescent shows have changed over the last five decades in an individualistic direction from community feeling to fame (Uhls & Greenfield, 2011). Content analysis revealed that the value of fame, along with other individualistic values such as personal achievement and financial success, grew significantly in importance from 1967 to 2007, with an accelerating expansion between 1997 and 2007, the same period in which the Internet and other communications technologies saw their rapid expansion. In fact, fame was the most important value portrayed in the two most popular preteen programs of 2007, *Hannah Montana* and *American Idol,* whereas it ranked near the very bottom for those broadcast over the previous 40 years. It is important to note that *Hannah Montana* is a fictional show, whereas *American Idol* is reality TV. In addition, as *Hannah Montana* illustrates, recent TV has come to feature an inordinate number of shows with famous teenage protagonists (Martin, 2009). These characters, close to the age of their audience, may be particularly salient and potent role models (Bandura, Ross, & Ross, 1963). The present study was designed to assess the uptake on the part of

preadolescents of the value of fame through exploring their interpretations of their favorite TV shows.

In addition to observational learning, new communication technologies have added enactive learning (learning by doing) to the tools available for acquiring fame as a concept and value. Both observation and action are potent learning mechanisms (Schunk, 2001); but learning through sensorimotor action is developmentally prior (Piaget, 1952). Apprenticeship learning, in which the learner both observes and participates enactively in the activity to be learned, is a particularly potent and effective form of learning (Childs & Greenfield, 1980; Meadows, 1998; Rogoff, 1990). The advent of YouTube where people can post videos of themselves and see themselves in videos that others have posted enables them to actively and enactively participate in reaching a broad audience. One can also receive concrete feedback concerning one's fame and that of others - in the form of counted "hits" and ratings of liking.

The site's tag line, "Broadcast yourself," communicates a clear mandate to display oneself to a worldwide audience. YouTube is currently the number-one online video destination for American youth 2-11 (Nielsen Online, 2008). As a consequence, YouTube could be an important potential influence in increasing the developmental importance of fame. While we do not yet know exactly how many members of the young YouTube audience post videos or play in them, this issue is explored in the present study.

But YouTube is not the only new technology that promotes public display for an audience beyond one's immediate community. Social networking sites, such as Facebook and MySpace, also cater to a desire to display oneself in a semi-public format (Manago, Graham, Greenfield, & Salimkhan, 2008; Salimkhan, Manago, & Greenfield, 2010).

These sites, where one posts text, photos and videos for a network of friends, stimulate

the urge to share updates about one's life; and one's potential audience typically numbers

in the hundreds (Manago, Taylor, & Greenfield, this issue). The present study explores

whether social networking sites are also part of the preadolescent learning environment,

and, if so, how preadolescents relate to them.

The Role of Cognitive Development

The concept of fame is an intrinsically abstract notion, for fame is the idea of

being known by large numbers of people who are not perceptually present to any given

individual. In a certain sense, understanding the concept of fame requires the societal

perspective; children at this level of perspective-taking are able to take the generalized

perspective of society, beginning around age 12 (Selman, 1981). However, with

programs like *Hannah Montana,* one of the two most popular programs with

preadolescent audiences in the present era, fame has become concretized in the dynamic

audiovisual imagery of a television narrative. With YouTube and camera phones, posting

videos becomes a very simple, concrete activity, able to be carried out in middle

childhood. Hence fame becomes cognitively accessible at a younger age than would have

been possible in an earlier era. One would therefore expect these television programs and

media tools to communicate the concept and importance of fame to younger children who

are not yet able to take the generalized perspective of society. Indeed, cultures provide

precocious socialization for skills that are particularly valued in a given culture (LeVine,

2010). New communication technologies provide tools for the precocious socialization

of fame as behavior and cultural value.

Historical Change in Later Development

While most people should agree that the media landscape has drastically changed, not everyone may believe that today's children are so much different than those of previous generations. Recent research conducted at later points in the developmental pathway from childhood to adulthood indicates otherwise. Surveys show that adolescents and emerging adults have, over the decades, become more focused on the self (Twenge, Konrath, Foster, Campbell, & Bushman, 2008), unrealistically ambitious (Reynolds, Stewart, MacDonald, & Sischo, 2006), and oriented towards material success (Dey, Astin, & Korn, 1991; Twenge, Campbell, Hoffman, & Lance, 2010) – all individualistic values that resonate with the value of fame. If adolescents and emerging adults are becoming more self-focused, unrealistically ambitious, and oriented toward material success, are these changes reflected in earlier stages of development? How do shifts in media content and tools toward increased emphasis on fame and public display of self affect child development? Our study examines these questions.

The Present Study

Focus group methodology explored whether preadolescent children (1) perceive a relationship between the value of fame and popular television programs; (2) connect fame and future aspirations; (3) relate social networking sites to the fame motive; and (3) employ YouTube or other platforms for posting videos as tools for achieving fame. Because this was new territory, a qualitative in-depth method was chosen to begin exploring these issues. Given the importance of peers during this period of development (Cohen & Cohen, 2001), when friends and media use often go hand in hand, focus-group

methodology also allowed us to examine how peers might take part in the co-construction of media-related values.

While qualitative analysis of group discourse was our main method, we also utilized one quantitative measure, the number-one value independently selected by each child. Hence this is a mixed-methods study. Based on our historical study of values in preteen TV (Uhls and Greenfield, 2011), we predicted that the top value for fourth and sixth graders in 2010 would be fame. Given our prior results and theoretical framework, we thought other individualistic values might also be important.

Method

Participants

Twenty children (9 girls, 11 boys) between 10 and 12 years of age participated in a total of five focus groups, ranging from three to five participants, with a median size of four (see Table 1). Interviews were carried out in same-sex groups of elementary (fourth and fifth grade) or middle-school (sixth grade) students in an after-school classroom of a public elementary or middle school on the Westside of Los Angeles. Each school has a socioeconomically diverse student population with at least 20% enrolled in the free lunch program. The mean age was 11, with the breakdown being six 10-year-olds, nine 11-year-olds and five 12-year-olds. Participants comprised three Latino Americans, one African American, three Asian Americans, one Middle Eastern American and twelve European Americans. The grade level, gender, age, and ethnic composition of each focus group is presented in Table 1. Participants were offered a coupon for a scoop of ice cream at a local store for their participation.

In terms of media habits, the most notable characteristics were that 80% owned cell phones and that all participants reported going online on a daily basis. Concerning TV/video, both YouTube and conventional television were popular sources, with all children viewing video from one platform or another on a daily basis.

Focus Group Procedure

The after-school director from each school provided students with parental consent forms describing the study. Focus groups were scheduled during time normally slotted for an after-school class. Children, the moderator, and research assistants sat on chairs in a circle in front of a classroom whiteboard. After the children were told about the process, they were asked to fill out a consent form. Next, we turned on the audio tape recorder. Each child gave their age and talked about their favorite media.

Measurement of values. The moderator listed seven values - community feeling, image, benevolence, fame, self-acceptance, financial success and achievement - on the board. These values were chosen from a previous study where participants ranked how important they judged each of 17 values to be in popular preteen TV over the last five decades (Uhls & Greenfield, 2011). The top two values were taken from each decade, but because the top two were the same for many of the decades (e.g community feeling was ranked number one or two in 1967, 1977, 1987 and 1997), this resulted in a total of six values. We then added one value to this list, financial success, making the above list of seven values. In the prior study, although financial success never made the top two, it increased significantly in importance across the decades.

The moderator explained the general concept of values, and what each specific value meant at a developmentally appropriate level. The complete list, with the given

explanations, is provided in Table 2. The children were then handed small pieces of paper and asked to write privately and anonymously one or two values from the list that were important for their future: "What do you value, what is important to you, secretly or public, for when you grow up?" They then placed the paper into a hat. If two values were listed, the first listed was considered the top value.

A ranking rather than rating procedure was used for two reasons: first, we were interested in relative priorities; second, this type of procedure made possible the use of the top-ranked values in the focus-group discussion that constituted the next step: The moderator read each listed value out loud without ascribing it to any particular child. The participants next discussed what these answers meant to them and why they might be important.

Videos. Next, the group chose a video to watch from a pre-selected group of three videos, all of which featured successful real life personalities or fictional characters. The three TV shows, all downloaded from iTunes, were: *iCarly* (season 2, "I Stage an Intervention")*, Hannah Montana* (season 1, "Me, and Mr. Jonas and Mr. Jonas) and *NBA All Star Game* (an exhibition game from 2009 featuring star players of the NBA). Each group, regardless of gender, chose the current hit *iCarly*. When Internet access and thus iTunes was unavailable for one group, they asked to watch a sports video from YouTube on a cell phone. The *iCarly* episode summary is: Carly needs to intervene when Spencer becomes addicted to playing a video game. Sam tricks Freddie into believing that he's being plagued by bad luck when he refuses to forward a "chain email." (iTunes Store, 2011).

The group watched the first five minutes of the program (begins with Carly and her best friend Sam being filmed for a webcast, then a set-up about the chain letter, then opening credits and finally, introduction to main plot line about Spencer and video games), then discussed their interpretation of the themes and characters. After this discussion, the moderator wrote on the whiteboard the children's ideas about how they felt one might prepare for the kinds of activities in which the characters participated. The discussion flowed in a more open direction for the next five to ten minutes.

Questionnaire. After about 50 minutes, the participants were asked to fill out a short questionnaire on media. Information from this questionnaire was used to describe the sample (see Participants section, above). The groups lasted just under an hour each.

Data Analysis

Quantitative analysis. We calculated how often each of the seven values appeared as a child's first or only choice. We used binomial tests to see if any single value appeared in the number-one spot with more than chance frequency. Additional binomial tests explored whether individualistic values as a group significantly exceeded chance frequency for appearing as top values. We also ran Fisher Exact tests to determine whether gender or school level (i.e. elementary or middle school) made a difference in selecting a number-one value. Although the top values were written anonymously, they could be identified by gender and school level because each group was composed of a single gender and came from either the elementary school or the middle school.

Qualitative analysis. Focus-group audio files were fully transcribed, preserving ungrammatical discourse when it occurred. Transcriptions were individually read three times by the first author and each of four research assistants looking for instances where

children explicitly and implicitly connected the value of fame and public recognition to messages in their media environment. The group met with transcripts in hand to discuss each focus group individually and the sample as a whole and to agree upon the most prominent themes. Themes were considered significant when three of the four research assistants as well as the first author agreed that the theme appeared across at least three of the five focus groups. In addition, the first author and a research assistant further identified sub-themes in the discourse in order to examine how participants ascribed meaning to fame, the most important value. (See Table 3 for full list of themes and subthemes.) The Results section follows the outline of Table 3 and provides illustrative examples of each theme and subtheme.

In reporting the discourse, the groups are labeled by a Roman numeral, school level (e.g. Elementary or Middle), and gender, corresponding to Table 1. Within each block of quotations, participants are labeled by gender and number (e.g., Girl 1, Girl 2, etc.), while the letter M labels the moderator. In order to clearly illustrate a theme or sub-theme, at times we edited the discourse of an individual participant to eliminate comments irrelevant to the point at hand; these edits are shown by the convention of multiple dots. If the multiple dots appear between conversationalists, this means that entire lines of dialogue from an intervening speaker were eliminated. At times, several children spoke at once; this was denoted by listing the gender and the number of each of the participants (e.g., Girl 1/2/3). Words within parentheses offer extra detail, not spoken by the participants, to aid the reader's comprehension.

Results and Discussion

Quantitative Analysis

We found that 8 out of 20 children, or 40%, listed fame as their top choice for what they wanted in their future, more than any other aspiration (see Figure 1). Fame was the only top choice to occur significantly more often than expected by chance (with seven possible values, the chance level is 14%; binomial test, $p = .006$). In each individual focus group, anywhere from a quarter to half the children listed fame as their most important value (see Table 1). However, contrary to expectation, individualistic values as a group (fame, achievement, financial success, self-acceptance, and image) did not occur more frequently than expected by chance.

According to Fisher Exact Tests, the difference between the distribution of fame as a top choice among girls (4 out of 9) and boys (4 out of 11) was not significant; nor was there a significant difference between elementary-school students (3 out of 8) and middle-school students (5 out of 12) in the frequency of selecting fame as their top goal. In sum, fame was the most frequent first-choice goal for the sample as a whole, for both boys and girls, and for both elementary and middle school students. Our qualitative analysis elucidated its meaning.

Qualitative Analysis

What does fame mean to these young people? We asked each group to discuss the meaning of fame as a goal, in order to explore our participants' interpretations of this most popular value. The discourse below, responding to the moderator's question about

why the participants listed fame as something they desired for their future, demonstrates the predominant belief - fame is connected to money, attention and fun:

[Boy 2] *Oh, so when I'm famous I'll get more rich. And I'll become a millionaire.* [Group II, Elementary boys]

[Girl 1] *Um, fame, being famous to me means like the world kinda knows you, and you know, just like being on the red carpet, and with like cameras flashing ...* [Group III, Middle girls]

[Boy 2] *You have a lot of money, everybody likes you.* [Group IV, Middle boys]

In addition, many of the children believed that fame would mean that people liked them and knew who they were.

Messages about fame in the media environment. Preadolescents expressed both explicit and implicit awareness of messages about fame and public recognition on different platforms and in a variety of content: in fictional TV, reality TV, and online. Moreover, a mixture of media conveyed repeated messages about famous young characters, real life and fictional, at times creating a synergy that reinforced their significance.

Messages about fame in fictional TV shows. Children were explicitly aware of the connection between fictional characters and fame, as the following quote demonstrates:

[M] *Um, iCarly? You think iCarly and Hannah Montana are similar?*

[Boy 3] *Yeah.*

[M] *You do?*

[Boy 2] *I do.*

[Boy 1] *Well, they both get famous from sponsors, so yeah.* (Group V, Middle boys)

In addition, the peer interchange reinforces each boy's conception that both popular TV characters are famous, with similar pathways to success.

In every focus group, all the children knew the TV show *iCarly* and were aware that the two lead characters hosted their own online show that boasted a large audience. The message that this kind of online audience translated to offline status, even with adults, is reinforced through the narrative as the quote below indicates.

[M] *(Who watches…) Um, I don't mean this show. I mean their web show.*

[Girl 2] *Um, alotta people in their school.*

[M] *School?*

[Girl 4] *Actually, grown ups watch it too. Like their principal watches it.*

[Girl 2] *Yeah, there's this episode it was the principal's daughter's birthday. And he wanted to be on the show, …*(Group III, Middle girls)

The show seems to validate the desirability of this kind of audience, even suggesting that adults desire the public platform that these teenage characters have created.

Messages about fame in real life. As we discussed different media content and platforms, the participants gave many examples of real people who were famous. In this first example, the group discussed the title of a video clip choice, *NBA All Star*. The discussion demonstrates that these boys connect fame to other sports, each with its own version of "stars."

[M] *I thought stars were movie stars.*

[Boy 2] *No, it can be baseball. Baseball, the all-stars game.*

[Boy 1] *You didn't know that?*

[M] *I'm just asking.*

[Boy 2] *The all-star game in football is the best.*

[M] *So football people and baseball people are famous too?*

[Boy2/ 3] *Yeah.* (Group II, Elementary boys)

In addition, the reality television genre often provides examples of regular people, perhaps like our participants and their families, interacting with successful people and achieving renown themselves. The discussion below arose as we discussed one participant's goal of becoming a fashion designer.

[M] *Have you ever seen a fashion designer in any media?*

[Girl 5] *Yeah.*

[M] *Or shows? Which shows?*

[Girl 5] *Um, well my mom, she really likes to watch "The Real Housewives of New York", and they go to fashion shows all the time.* (Group III, Middle girls)

Numerous examples showed children were aware that a large online audience translated to becoming a celebrity. For example, when the moderator asked whether a "kid" could be a successful Internet star, these 6th grade boys talked about one popular Internet phenomenon:

[Boy 1] *Look at Fred, he's annoying and everyone likes him.*

[Boy 2] *Look at, look at.*

[Boy 3] *I know! Fred is like.*

[M] *Who's Fred?*

.....

[Boy 1] *He's like the number three most subscribed on YouTube video.*

[M] *And how old's he?*

[Boy 3] *Like sixteen and he's acting like a baby.*

[Boy 2*] Oh yeah the guy who made that, like that Christmas song?* (Group V, Middle boys)

Media provide messages about fame and its desirability not only with fictional characters but also with "real" people.   The examples of teenage Internet celebrities may also reinforce the notion that young people can achieve renown.

     Synergy Across Different Media. Messages about fame multiply as they are populated across platforms. Thus, youth see a real-life figure or fictional character in one medium such as TV and then later learn more about them online, perhaps while watching YouTube. The boys below not only knew about popular sport stars from watching them play live games on TV, but also from clips of them on YouTube.

[M] *Anyone got a YouTube video they wanna talk about?...*

[Boy 3] *I have one…*

[Boy 2] *Could it be, like, a basketball player or something?*

[Boy 3] *Michael Burger remix?*

[Boy 2] *Um….Lebraun, Lebraun dumps on Kevin Garnett?* (Group IV, Middle

    boys)

Although the moderator's question was not about sports clips on YouTube, the boys first suggested videos of their favorite sport celebrities. As the group discussed one famous basketball star, they bring up seeing him in a film on their video game console:

[Boy 2] *Yeah I've seen his movie.*

[M] *You saw the movie?*

[Boy 2] *Yeah. It was cool. I have it on my xbox.*

[Boy 3] *"I wanna see that.*

[Boy 4] *It was cool.* (Group IV, Middle boys)

As the above quote illustrates, a real person's life was portrayed in a film and then played on a medium that youth easily access (i.e. Xbox). This kind of synergy may increase the power of the messages.

Connection between messages in media and future goals. Our discussions also explored how children connect messages about fame to their future goals.

Explicit connections to future goals. In each group, at least one participant stated fame as their future goal or most important value. We were thus able to ask the group as a whole if they thought about how someone might achieve this goal, and we found many connections to messages from media. When asked if anyone had seen examples of people in media doing a job they were interested in, this girl tells the group how she was inspired towards her stated goal to be a singer.

[Girl 1] *Well, um, ah, for like, ah, um, like, I knew when I wanted to be like a singer was when I like went to this concert, and I was in the third grade. And it was a Miley Cyrus concert, with the Jonas Brothers. … So I like saw her on stage, and you know and um, it seemed like she really was having a really good time. And like, it showed me that like I wanna have a good time, you know, like people cheering my name, and you know, singing the songs that I wrote. …*[Group III, Middle Girls]

Girl 1 connects her desire to be a singer to the real life actress, Miley Cyrus, who plays Hannah Montana, a popular fictional character on a Disney show. The actress, who is also a rock star and just a few years older than our participants, exudes an appealing aura that her audience seems to enjoy, playing to this girl's desire for attention and recognition.

She has no trouble imagining herself on the stage with an audience singing songs she wrote.

Later in the conversation, the group brings up a show called *True Jackson*, in which a 15 year old is vice-president of a fashion company. The moderator asks if anyone knew how the character got her job, and Girl 4, who previously stated a desire to be fashion designer, answers.

[Girl 4] *Okay, and then she was wearing this like orange thing or something, and it went good with the outfit, and the boss says, "Oh, I like that." And so, and she's always been dreaming to go to that like 'Mad Style'. And then she's like, "Why don't you be the vice-president?" And that's it.*

[M] *You guys think that that could happen? Do you dream about that happening?*

[Girl 1] *Yes!*

[Girl 2] *Maybe, there's a chance.*

[Girl 5] *Hopefully!* [Group III, Middle girls]

The connection between the girl's desires and the television show are explicit, while the peer interchange underscores the possibility that this kind of success is real and attainable for a teenager.

In the sequence below, the 6th grade boy who told us that Fred was the number 3 subscribed YouTube star talks about his immediate goal for a large Internet audience. In response to a question from the moderator if anyone made a video to post online, he says:

[Boy 1] *Um, my friends and I are making a YouTube Channel…*

[M] *Why are you doing that?…. For fun? Or do you have a goal?*

[Boy 1] *Our goal is to try and get a million subscribers.* (Group V, Middle boys)

As we saw in the earlier quotes, all of these boys knew of Fred, and Boy 1 seemed to have even studied his success, hoping to achieve an audience in the same manner. Fred, as an example of a regular teenager achieving Internet fame, may be a particularly salient role model.

Judgments of realism and applicability to their own life. Many of the children had explicit dreams for success, while others did not express the same level of concrete thinking about vocations. We explored whether these children had connected the pathways to fame and success from the fictional characters on TV to their own budding future goals. We thus asked if what they saw on *iCarly* seemed possible, and if so, how they would do the same thing.

[M] *… Do you really think that could really happen? Can kids have a web show? How would you do it?*

[Boy 1] *I would set up a website and I would tape videos and then I would put it on there like YouTube…. I would just tell people, like i (boy's name).com.* (Group II, Elementary boys)

[M] *You guys think you could…did they have any grown up help?*

[Girl 1/2/4*] No.*

[M] *Do you think you need a grown up, or any kid can do it?*

[Girl 1] *Any kid can do it.*

[Girl 5/2] *Yeah.* [Group III, Middle girls]

The path to Internet success may seem particularly achievable at a young age, given nearly anyone's easy access to YouTube. In one group, the participants believed

that the concept behind *iCarly* came from real life, even though the lead character had previously been on another popular fictional TV show. When asked what the show is about, the group responds:

  [Girl 2] *… just about like three teenagers, who are really close together and, they do a web show, it just shows their normal life and how they are on the show.*

  [Girl 3] *Like, I think, I actually heard from somebody it, their show, actually did start out as a webcast.* (Group I, Elementary girls)

This kind of "achievable" pathway is also modeled in reality TV as this discussion about *American Idol* indicates.

  [M] *Can kids become, can kids go on that show?*

  [Boy 2] *Yeah. Sixteen to twenty-eight.*

  [Boy 3] *Yeah sixteen year olds*. (Group V, Middle boys)

As demonstrated by the above quotes, children witness teenage Internet celebrities and young reality TV stars. Even children who do not explicitly desire a career similar to the characters they observe seem acutely aware that the pathway exists, beginning at a young age.

Video sharing and social networking: enacting the value of fame. Even when children did not explicitly endorse the value of fame, they used digital media to find an online audience. The majority of participants had either posted their own videos online or knew of others, an adult or peer, who had posted a video to attract an online audience. As such, a normative desire for peer recognition could become a desire for public recognition achieved through online media, amplifying the motivation for a broad audience.

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Video sharing by others: peers and adults. Group I girls bring up a boy who is

not their friend, yet they were aware of his videos and his burgeoning audience beyond

the school playground.

[M] *Did you ever talk to him…why did he put those up?*

[Girl 3] *Because, um, actually no, because he does it at school and everyone thinks*

it's funny. So I guess he thought it would be a good idea to put it up [Group I,

Elementary girls]

In other cases, we heard about adults who encouraged the message that an

audience of one's immediate community is inadequate. When asked if he had ever

posted a video of himself online, Boy 2 tells the group that while he himself has not

posted one, his piano teacher did.

[Boy 2] *So, um, ok so, I, I did my act right, with another kid, and then my, my piano*

teacher was there, it was piano act, and um, she, she filmed it and put it on

YouTube…I'm on YouTube and I didn't (pause) *do it. But she filmed it.*

…

[M] *Why'd she do that?*

[Boy 2] *I don't know.* [Group V, Middle boys]

In the following example, another adult encourages the children to perform

specifically for a video to be posted online. Boy 4 who claimed never to have posted his

own video online tells the group about an adult who posted a video of him.

[Boy 4]: *I was in a church, um, and doing music, and then, um, my pastor, he said,*

um, all junior highs were going to make a video on YouTube. So we did this, like, a

few months ago, and then, yeah um, we did this dance, and, it was this Korean pop

kinda yeah. It was, of this, yeah, idol?

[M]: *Idol? Like a, religious thing? Or, uh, like, a singer…Was it serious or funny?*

[Boy 4] *Funny, and I was real bored, then, I don't know if he put it up or not, or, but*

it was really funny after, um, we, um, I'm not sure if you can see it or not, yeah.

[Group IV, Middle boys].

Whatever their intent, in deciding to film and post online, the message these

adults model is that an activity or interest should be seen by an audience beyond the

people that participated in the activity or saw the performance in person. If children

begin to internalize these messages, they may look for a bigger audience in any capacity

in order to validate what they are doing. These youth, and the adults they interact with,

seem no longer seem satisfied with attention from their own communities and instead

seek a larger platform.

Online audience for self: video-sharing platforms. Nearly all of our participants

made and posted online videos.

[M] *…Have you guys ever made a video for YouTube?*

[Boy 3] *No.*

[Boy 2] *Yeah.*

[Boy 4] *Only once.*

[Boy 1] *I did.*

 …

[M] *And did you put it up on YouTube?*

[Boy 1] *Um yeah we did. We have like eight episodes.*

...

[M] *And did you get people to see it?*

[Boy 1] *Um, yeah, we got, I got a couple of my friends and they got a couple of their friends and I think it stopped there because we only got like 200 people to watch it, in like a year.*

[M] *That's not bad, do you feel like that's good or bad?*

[Boy 1] *Um, it's pretty good except other things have been out for like, a week and they've gotten like a million views and stuff so.* [Group IV, Middle boys]

This boy showed creativity and agency. But his video's audience of 200 seemed inadequate to him, because he compared his audience to others.

Youth who post videos are conscious of their online audience, and sensitive to its size. The following quotes are all in response to discussions about which participants had posted videos online.

[M] *Have you posted something?*

[Girl 1] *...I have a Facebook account too, and I usually go on it. Like, I go on it every single day. I have posted like three videos so far.*

[M] *On your Facebook?*

...

[Girl 1] *And, they're like, videos of me being bored, and, but kinda like doing comedy at the same time. And like my friends, some of my friends have watched, but they have commented on it. But... um... you know, I think people watch it.* [Group III, Middle girls]

[Boy 3] *I did one video once, but it only got like, four views.*

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...

[Boy 3] *And no comments.*

[Boy 2] *It's a video website.*

[Boy 3] *It was sad.*

[M] *Yeah. Have you ever put one up?*

[Boy 1] *Uh, yeah. It was of my little cousin messing with my computer. It currently has fifty four views and five comments*. (Group V, Middle boys)

[Girl 5] *And so we posted that on the Internet, and I don't know how many views it has, but, ah.*

[M] *You don't know?*

[Girl 5] *Yeah, I don't have that many views, but...* (Group III, Middle girls)

Digital media have increased the average person's ability to gain an audience. Given their easy access to tools that invite public display, young people who grew up with digital media may be more comfortable than older people with performing on a virtual stage for an audience they may never see face to face.

Online audience for self: "friends" on social networking sites. Our young participants were already aware of how many people "watch" them online on social networking sites such as Facebook, as the next quote illustrates. When asked how many "friends" the girls have on social networking sites, Girl 1 answers, while Girl 2 chimes in:

[Girl 1] *And I have like, two hundred and*

[Girl 2] *something friends.*

[Girl 1*] Like two hundred and ninety something or eighty something friends.*

[M] *That's a lot of friends. You know them all.*

[Girl 1] *Most of them.*

 ...

[Girl 1] *Yeah, it's about the 5th graders, um, a lot of them are adding me on Facebook because… And I didn't even know them, and like, I remember their faces but I didn't really know them and I was like, but I like confirmed it and they were like "Oh my God! You are so cool. I can't believe we're friends on Facebook, and I'm like…*

[M] *Well, would you ever sit next to them or hang out with them if they were here on campus?*

[Girl 1] *Um I don't think so, no.* [Group III, Middle girls]

Even though some of these "friends" are not people this girl would want to talk to face to face, she was aware that they were watching her and in some sense may have performed for them. Her ability to acquire an audience could be feeding into a desire for fame, and the consequent attention that all these groups believed went with fame.

In the exchange below, several boys make clear how many "friends" they have.

[M] *How many, you know, when you friend people? They count how many friends you have.*

[Boy 4] *Oh. 180 I think?*

[Boy 2] *I have 9.*

[M] *You have 9?*

[Boy 2] *My dad has like, 1072.*

[Boy 1] *Whoa. Oh my gosh.*

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[M] *How did he get that many?*

[Boy 2] *'Cause he goes to find them. He's like. naw, like,*

[M] *And how did you get 150?*

[Boy 4] *80.*

[M] *80?*

[Boy 2] *Oh there's a lot, a lot of people have that much, like, 1000.*

[Boy 4] *It's been a few weeks, few weeks, since I made it. Few weeks, and then, um, I added all the people in my church, and in school.*

[M] *And that's a 150 people?*

[Boy 4] *80. (Group IV, Middle boys)*

Boy 4 says he "thinks" he has 180 friends, but as the exchange goes on, and he corrects the moderator several times (e.g. when she says 150 friends, he points out several times by saying "80" that he means 180) it is apparent he knows exactly how large his network is. Boy 2 also knows the size of his "audience" and that of his fathers. He tells Boy 1 that a network of 1000 is not unusual, underscoring that a big network is normative. The interchange between peers about network size seems to highlight the status that may be associated with a large online audience.

Desire for individual fame in communal activities. We found evidence that the individualistic value of fame and public recognition crossed into other domains. In the example below, a boy elaborates on his plan to become an NBA star, even though earlier he told us that he was not on a team nor had plans to try out. The moderator asks him how he plans to get into the NBA:

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[Boy 2] *First, I'm gonna take it seriously, play, um, travel basketball, and, um, I'm going (to) college for one year, see if I'm really good, and, I wanna be on a really bad team, so, I can be like the star.*

 ...

[M]: *Bad team in the NBA?*

[Boy 2] *If I ever won a championship, and like, be the most famous guy.*

…

[Boy 4] *Well Michael Jordan won three and he was the –*

[Boy 3] *Well there's one way you can do it–*

 …

[Boy 3] *-cause if your teams not good then you're going to be pushed to try to play your best then, um, better teams will see that, and he'll- and then teams will see and he'll be able to, and then they'll, um, trade him and so he'll get on the really good team and then, um, probably win a championship….*

[Boy 2] *I wanna be on, like, the [sports team], I wanna be on a team that's never won a championship.* [Group IV, Middle boys]

Although basketball is a team sport that requires shared goals and group commitment, this boy has no desire either for his team to win or to begin the hard work of learning to play basketball. His only goal appears to become famous. The peer interchange reinforce this boy's fanciful path towards becoming famous even if his team has to lose for his personal goal to be met.

The generality of the motivation for attention and audience was highlighted when a group discussed a community service activity. The following example came from a discussion about the meaning of community feeling, one of the value choices. The girls were asked what is important about community.

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[Girl 4] *The same as (Girl 1's name) and helping out in the community, like going green and helping.*

 [Girl 3] *…But like, I'm in 'Waste Warriors' here, and like we give speeches to the younger kids and stuff and we put on performances and like, we recently just went to town hall to collect our… our grand prize for recycling and we got to meet the governor and um, the mayor, so that's really…*

[Girl 4] *We were on television.*

[M] *Oh wow, oh you guys got, who got, every, all the fifth graders?*

[Girl 4] *No. Only 'Waste Warriors'.*

[Girl 3] *No, it was just the group of maybe, ten people.*

…

[Girl 4] *We were on television and in the newspaper.* [Group III, Elementary girls]

In this transcript, a conversation about the meaning of community feeling transforms into a conversation about exposure on television and in the newspaper, as well as about access to famous political figures. Moreover, the community service activities mentioned in the greatest detail are performance based: The older children give speeches and put on shows for the younger children. Although Girl 4 begins the discussion with an explanation of activities that benefit a community, when Girl 3 brings up a school club connected to community feeling, she talks about meeting the mayor and governor. Girl 4 then describes this club's exposure to other audiences through television and newspaper. The peer interchange reinforces this extrinsic reward. Thus, the motivation for this organization, which may have initially been connected to service or community, becomes linked to rewards such as public attention and social access.

Conclusions and Implications

By showing fame as the number-one cultural value in a preadolescent sample, the present study supports the prior historical comparison of popular preteen TV show content over five decades; in that study, fame first emerged as the top cultural value in 2007 (Uhls & Greenfield, 2011). Our qualitative discourse analysis revealed preadolescent uptake of the twin values of fame and audience from (1) the most popular preteen shows, *Hannah Montana* and *American Idol* (About.com, 2011), as well as other shows with similar themes; (2) YouTube; and (3) social networking sites. Because the reality genre (e.g., *American Idol*), YouTube, and social networking sites have developed so rapidly and recently, the historical content analysis of cultural products for preadolescents (Uhls & Greenfield, 2011) combined with preadolescent interpretations of their media environment in this study support the theoretical proposition that the most dynamic sociodemographic variable – arguably commucation technologies at the present time – is the one that transforms cultural values and developmental trajectories (Greenfield, 2009).

In the prior content analysis of of popular preteen television (Uhls & Greenfield, 2011), not only fame, but also other individualistic values, including financial success and achievement, rose significantly in relative importance over the decades. Contrary to those findings and to theoretical expectation, individualistic values as a group did not occur more often than chance in the children's number-one choices. Perhaps this result has to do with the fact that fame, more than other individualistic goals, is highly accessible for both observation and enactment in the children's multimedia learning environment.

Focus groups provided an in-depth portrait of preadolescents' interpretations of fame portrayed in favorite programs and their use of interactive media tools to search for an audience for themselves. Popularity is a developmentally normative motive in this age group (De Bryn & Cillessen, 2006). Accordingly, at this developmental stage, when children seek peer acceptance and recognition, messages about fame may be especially appealing. When, however, an abundance of messages in the media environment promotes fame and when interactive media tools give youth the potential for broad public recognition, the desire for attention from an audience, manifest in the value of fame, may become amplified, as is the case for emerging adults using social network sites (Manago et al., 2008).

The notions of fame, audience, and performance were firmly embedded in the discourse. The new media environment concretized and emphasized these concepts, so that they were precociously acquired, appearing even before the age when the societal perspective generally develops (Selman, 1981). Fame, audience, and performance revealed themselves as extrinsic motivators for a variety of activities. Our example of the discourse around one group's community service showed that the value of public recognition may be spreading from online content creation (Ito et al., 2009) to arenas normally associated with communitarian values. Similarly, performing for an audience had expanded from more traditional venues into the domain of community service. Moreover, the children's discourse, as well as responses to the poll asking for one or two values important to their future, indicated the perceived relevance of fame-oriented media to their own futures.

Although children's aspirations may become more realistic as they grow up, children in this age group are beginning to form their achievement values and self-concepts (Wigfield & Eccles, 1992). It may therefore be reason for concern that none of the children mentioned a particular skill associated with the concept of fame such as excelling at a sport or acting.

Only longitudinal research can tell us whether fame will remain an overarching goal, one that is more important than the deeds for which one is known. When youth see messages about fame in nearly every aspect of their pervasive media environment -- fictional TV programs, reality TV shows, sports programs, and online -- coupled with same-age models who achieve fame, these aspirations could remain central. In addition, children now have tools that provide access to a virtual audience, giving an impression that fame is at their fingertips. These tools may be cultivating a culture of reward from a virtual audience, amplifying a desire for fame and public recognition for any and all actions.

Fame is an aspiration that narcissists fantasize about achieving (Raskin & Novacek, 1991); our findings suggest that the documented historical increase in narcissistic personality in emerging adults (Twenge, Konrath, Foster, Campbell, & Bushman, 2008) begins in the preadolescent years with a desire for fame. A potential synergy exists between *observing* the fame-oriented content of popular TV shows and *enacting* the value of fame by participating in or posting online videos. Now even children can and do achieve their fifteen minutes of fame, in the words of *Andy Warhol*.

In sum, our focus group findings indicate that watching fame narratives with young protagonists in popular television programming, both fictional and real; playing in or posting videos online; and developing an audience of "friends" on social network sites

make the concept of fame highly accessible to children between ten and twelve years of age, transforming fame into a key value and goal for children in this age group.

Limitations and Future Directions

Without historical data, we do not know if children's aspirations have changed over time. The only relevant study from an earlier period was of a different age group, high school boys and adult men. Only 4% of the boys and 2% of the men indicated that they desired a job that would make them famous (Singer & Stefflre, 1954). In sharp contrast, 40% of our sample of preadolescents desired fame. However, we do not know the extent to which the developmental factor of increasing realism with age, rather than historical change, is at play in this historical comparison. Aspirations undoubtedly become more realistic with age; it will be interesting to follow these children over time, in order to explore this issue.

Because of openly discussing the value poll in the focus group, the children were not asked to put their names on their value choices. However, this procedure meant that we could not connect children's value choices in the poll to their discourse during discussion. Building on our findings, a future survey will connect value priorities to reasoning about fame and fame-oriented practices on an individual level. We cannot conclude that our findings are representative of American youth: Besides being small, our sample was in Los Angeles, a city in which fame is more apparent, given that it is home to many Hollywood stars and studios. Because youth trends beginning in media-saturated Los Angeles subsequently go national (L. Greenfield, 1997; L. Greenfield, 2002), the logical next step is to conduct a survey with a large sample of preadolescents

in diverse socioeconomic and geographical settings, thus continuing to fill a knowledge gap on media influences in this sensitive developmental period.

Table 1.

Gender, Number, Age, Ethnic Composition, and First-Choice Values of each Focus Group.

Group	Gender	N	Age and Grade	Ethnicity	First-Choice Values*
I Elementary school	Female	4	Three 10-yr-olds (4th grade), one 11-yr-old (5th grade)	Two European Americans, two Latinos	Fame (2) Benevolence Community feeling
II Elementary school	Male	4	Three 10-yr-olds (4th grade), one 11-yr-old (5th grade)	Three European Americans, one Latino	Fame Achievement Benevolence Have a lot of fun**
III Middle school	Female	5	Three 11-yr-olds, two 12-yr-olds (all 6th grade)	Four European Americans, one Middle- Eastern American	Fame (2) Community feeling Kindness*** Achievement
IV Middle school	Male	4	Three 11-yr-olds, one 12-year-old (all 6th grade)	One European American, one African American, two Asian Americans	Fame (2) Benevolence Achievement
V Middle school	Male	3	One 11-yr-old, two 12-yr-olds (all 6th grade)	Three European Americans	Fame Financial success Kindness***

Notes:

*Because the "votes" on values were anonymous, first-choice values cannot be linked back to particular participants.

 **One child produced this response, even though it was not in the list of seven values.

***The focus group leader defined benevolence using the word "kindness." Two of the children used this word on their slips of paper; these responses were aggregated with "benevolence."

Table 2

Values and their Explanations

Value	Explanation
Fame	The most important thing for your future is to be famous.
Benevolence	The most important thing will be to be really kind.
Community Feeling	The most important thing will be to be part of a group.
Achievement	The most important thing will be to be very successful.
Financial Success	The most important thing will be to make a lot of money, to be rich.
Self Acceptance	The most important thing will be to love and accept yourself.
Image	The most important thing will be to look good. You will care about what you look like.

Table 3

Qualitative Analysis: Themes and Subthemes

1. What does fame mean to young people?

2. Messages about Fame
        a. Fictional TV shows
        b. In real life
        c. Synergy across different media

3. Connection between messages in media and future goals
        a. Explicit connections
        b. Judgments of realism and applicability to their own life

4. Video sharing and social networking: enacting the value of fame
        a.   Video sharing by others: peers and adults
        b.   Online audience for self: video-sharing platforms
        c.   Online audience for self: "friends" on social networking sites
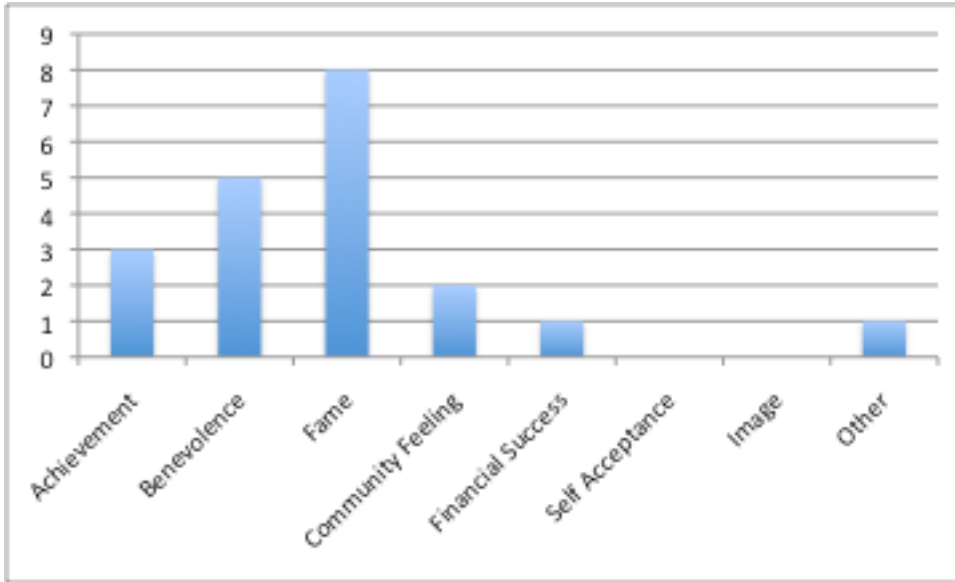   d. Desire for individual fame in communal activities

Figure 1. Number of participants (out of a total of 20) who listed various values, as their

number one desired future value/ goal. Other: One child produced the response "having

fun," rather than selecting from the seven values. No one selected image or self-

acceptance as a first choice value.

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**21st Century Media, Fame and Individualism: A National Survey of
9-15 Year Olds**

Abstract

Past research found that messages in popular television promote fame as a top

value, while social media allow anyone to reach broad audiences (Uhls & Greenfield,

2011; Uhls & Greenfield, 2012). During a sensitive developmental phase, preteens are

the largest users of media, consuming over seven and a half hours a day, seven days a

week, outside of school. A nationwide survey (United States) asked 315 youth (*M*=12

years; range: 9 -15 years) about their media habits as well as their aspirations for their

future. Participant's answers about their future goals clustered around two factors,

representing individualistic and collectivistic value systems. Fame, image, money and

status were items in the former; helping others, helping my family and being near my

family were items in the latter. Watching television and using a social networking site

predicted valuing individualism, above and beyond the influence of control variables of

age and maternal education, while the two together predicted a larger portion of the

variance than either alone. Collectivism was not associated with any media activities.

Implications are that valuing individualism may be partially connected to newer digital

media.

"The poets make Fame a monster. They describe her in part finely and elegantly, and in part gravely and serentiously. They say, look at how many feathers she hath, so many eyes she hath underneath; so many tongues; so many voices; she pricks up so many ears." Francis Bacon, est. 1625

At the turn of the twentieth century, two widely known cultural products, *American Idol* and *Facebook,* did not exist. As of 2013, *American Idol,* a reality television show, had broadcast thirteen successful seasons and spawned over 350 Billboard charted songs ("American Idol," 2013). *Facebook*, a social networking site that began in 2004, currently has 1.1 billion members worldwide ("Facebook: Key Facts," 2013). Despite the fact that the first is a filmed reality television show and the second an online social networking platform, these media share similar underlying concepts. Both *American Idol*, which showcases ordinary people striving to become pop stars, and *Facebook*, which encourages people to share information about themselves in a semi-public manner online (Manago, Graham, Greenfield, & Salimkhan, 2008), capitalize on human beings' fascination with fame and recognition (Braudy, 1997). By creating the appearance that nearly anyone can capture a large audience, without gatekeepers such as major corporations creating barriers to entry, these contemporary cultural products became worldwide juggernauts, capturing global audiences in record time.

The media landscape in 2013, no doubt inspired by these successes, features a plethora of reality television shows and social media networks (Solis, 2013; "Reality TV, Wikipedia," 2013). This programming, facilitated by the development of the Internet, mobile technologies, and the rapid proliferation of content distribution channels, seems

unusual to older generations, but to those born in the last fifteen years (sometimes called digital natives because they know only a world permeated with digital media, it is the norm (Uhls & Greenfield, 2011; Uhls & Greenfield, 2012 Prensky, 2006). This "new normal" is reflected in the popular fictional TV shows targeted to preteens, which often feature characters realizing lifestyles of enormous success, wealth and renown in their teenage years (Martin, 2009).

Greenfield's theory of social change and human development predicts that human development adapts to changes in sociodemographics such as wealth and technology by becoming more individualistic (Greenfield, 2009a). According to the theory, changes in sociodemographic factors shape cultural values, which in turn influence the learning environment. Accordingly, the learning environment, which today is increasingly dominated by media that promote fame and fortune (Uhls & Greenfield, 2011), influence social and cognitive development (Greenfield, 2009b).

Our study, a follow up to previous work on the connection between media and individualistic values (Uhls & Greenfield, 2011; Uhls & Greenfield, 2012), expanded our sample size and reach to further examine whether an important task of social development, the adoption of values, is influenced by the dominant cultural products of popular television programming and online social networking platforms. Using an online survey format, we asked 315 children from across the United States, ages 9 to 15, to report on their values and media consumption patterns.

Media as a Socialization Force in the 21st Century

The rapid progression of technology and media, in particular their use by children, is well documented; extant research demonstrated conclusively that children adopted

media at an extraordinary pace (Common Sense Media, 2013; Rideout, Foehr, & Roberts, 2010) . For example, the Kaiser Family Foundation's nationally representative survey of 3rd to 12th graders recorded the rapid increase of media consumption over a period of ten years; their last iteration of the survey from 2009, found that children, ages 8-18, spend an average of seven hours and thirty eight minutes a day, seven days a week using media (defined as television content, music/ audio, computer, video games, print and movies; does not include texting) (Rideout et al., 2010). Thus, in many cases, children spend more time with media than they do with their parents or in school (Gunn & Donahue, 2008). As such, media are a significant socialization force with connections to salient developmental tasks in early adolescence such as social learning and identity formation (Subrahmanyam & Smahel, 2010).

Television – Reflection of Cultural Norms and Socialization Mechanism

Even though television is an older content delivery platform, it is still the most popular, with children ages 8-18 years reporting to watch an average of 4 hours and 29 minutes per day, seven days a week (Rideout et al., 2010). Social learning theory suggests that social models, such as those provided by the entertainment environment of mass media, convey a large amount of information about human values, styles of thinking, and behavior (Bandura, 2001). Television viewing cultivates perceptions of social reality (Gerbner, Gross, Morgan, & Signorelli, 1979). Research found that characters on television influence people's thoughts about work (Hoffner, Levine, & Toohey, 2008; Hoffner et al., 2006; Gerbner, Gross, Morgan, & Signorelli, 1980), moral values (Rosenkoetter, 2001), and family life (Comstock & Paik, 1991). Our own work found that Los Angeles preteens experienced the influence of fame-oriented TV shows

(Uhls & Greenfield, 2012). Reiss & Wiltz (2004a) found that the more reality TV shows a person liked, the more status oriented they were. Consequently, when considering relevant forces in the learning environment, television should be factored into the discussion, not only as a socialization mechanism but also as a reflection of the culture.

Social networking sites and Social Learning

Online social networking sites have become a core feature of daily life, with millions of social interactions being played out in the virtual space on a daily basis (Wilson, Gosling, & Graham, 2012). Social media bring the Internet's speed and scale to daily human interactions, making communication with another person, indeed hundreds to thousands to millions of other people, easily accessible at the click of a button (Chui et al., 2012). The reach of Facebook, the number one online social networking site in the world, has not gone unnoticed in the social sciences. A current literature review, which focused only on research about Facebook, identified 412 relevant articles (Wilson et al., 2012). Yet Facebook is only one of many popular social networking sites; others, whose members number in the multi-millions, include Twitter, Instagram and YouTube, and more platforms are announced nearly every day (Solis, 2013).

Young people initially fueled their rapid growth, but today nearly every age group, beginning from the pre-school years to over 50 years of age, use these communication technologies (Common Sense Media, 2013; Pew, 2013). Due to regulations on Internet access (i.e. the Children's Online Privacy Protection Act of 1998 whereby websites cannot collect any information on kids under 13) children under 13 are not allowed to use most social media without a parent's permission. However, one survey found that seven million children under the age of 13 have Facebook profiles, with five million of these

under 10 years (Consumer Reports, 2011). During early adolescence, social media become increasingly prevalent, with 64% of 12-13 year olds, and 88% of 14-17 year olds, reporting the use of these websites, with a median number of "friends" at 300 for older adolescents (Madden, Lenhart, Duggan, Cortesi, & Gasser, 2013). Given the importance placed on peers during early adolescence (Harter, 1990; De Bryn & Cillessen, 2006), social networking sites are important places to examine social interactions and learning for this age group.

The Preteen Years: Developmental Tasks and Media

The transition from childhood to adolescence is an important period of identity development and socialization (Eriksen, 1959). In late childhood and early adolescence, humans learn to think more abstractly about their environment, while acquiring the information-processing skills to more readily organize and use what they learn (Piaget, 1952). Children at this age, in experiencing their own daily worlds as well as society at large, begin to become more aware and sensitive to what is important and valued. For example, beginning at approximately seven years, children start to understand consumer values based on social meaning and significance. By the age of 12, impression formation also becomes more cogent as children learn to make social comparisons on a sophisticated level (John, 1999).

Marketers, realizing the purchasing power of young people, now target this age group through direct media channels facilitated by the explosion of content on cable channels and other child centered programming (Buckingham, 2007; Uhls & Greenfield, 2011). Cultural products such as television and movies are a constant source of information about what is desirable and confers status, while the public nature of today's

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social media promote social comparison, making salient group value priorities. The photos and status updates in these newer media lend themselves to crafting one's image, while the comments create a feedback mechanism that allows instant judgment (Salimkhan, Manago, & Greenfield, 2010). Most recently, Instagram, a photo centered social media platform, has become the most popular social media for young adolescents, perhaps underscoring how visual, and thus "skin-deep," this medium really is (Flaherty, 2013).

In addition, during this developmental phase, adults become less important in choosing the kinds of media their children consume, which effectively permits adolescents, through their choice of media, to self-socialize (Arnett, 1995). Because children at this age frequently receive their first mobile phone, their ability to access content and peers anytime and anywhere is accelerated (Lenhart, 2012). Digital natives use these media to communicate and interact with their peers, and peers reinforce messages in the environment. Taken together, these factors may create the perfect storm for cultural product and communication technologies to impact preteen and early adolescent development.

The Importance of Values

Values, which inform attitudes and behaviors, reflect cultural norms and socio-historical trends (Rohan, 2000; Bardi & Schwartz, 2003; Greenfield, 2009). Value priorities are important in cognitive networks of attitudes and beliefs (Rokeach, 1973). Values also influence family life and development because they are incorporated within cultural schemas that underlie family activities and give events their affective and moral meaning (Garnier & Stein, 1998).

Other factors besides family mediate the transmission of values including peers, societal institutions and the media. Accordingly, values are dynamic and can change depending on environmental influences (Rokeach, 1973; Greenfield, 2009a). For example, in an 18-year longitudinal study, Garnier and Stein (1998) found that adolescent's values related not only to maternal values, but also differed; this differentiation was explained by taking into account sociohistorical influences (Garnier & Stein, 1998).

Individualistic and Collectivistic Value Systems

Values such as individualism and collectivism have been extensively studied and validated by researchers in the fields of culture and value systems (Triandis, Bontempo, Villareal, Asai, & Lucca, 1988; Schwartz, 1992). Those who hold more individualistic goals tend to prioritize the self, with variability in behavior including independent thought and action as well a focus on status and power (Schwartz et al., 2012). Those who value collectivism tend to act in accordance with group norms and prioritize others (Rohan, 2000) .

Fame, financial success and image: Relationship to individualism. A desire to differentiate oneself from others is an essential component of fame and a recognized factor in individualism (Owens, 2008; Maltby, 2010). Moreover, being famous requires extreme attention to image in order to capture the interest of audiences that can number in the multi-millions. Inherent in the desire of fame is the anticipation of wealth. Indeed, in our content analysis of TV shows, which documented a rise in portrayed individualistic values in popular TV broadcast that was broadcast in 2007 (Uhls & Greenfield, 2012), we found that both fame and fortune were at the top of the list of represented values. The

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relationship of fame, fortune and image, as they relate to an individualistic value system, is important to ascertain; these particular values may be most in line with 21st century media.

The Rise of Individualism

Greenfield's theory of social change and human development predicts that individualistic values, behavior and psychology are adaptations to gesellschaft (society) environments (Greenfield, 2009). Greenfield and other social scientists (Triandis et al., 1988) suggest that affluence and economic growth are drivers of individualism. Triandis and colleagues found that an important aspect of individualism is the subordination of in-group to personal goals. This is already a feature of the United States, a prototypical individualistic culture whose identity is shaped by capitalism, a free-rights economic system. However, the rapid growth of technology in the last twenty years is a new characteristic in the environment, and its swift adoption by young people could be influencing development towards an even more individualistic value system. For example, catering to the self is a feature of 21st century media. While in past generations a single television with limited programming rested in the main living space; today, it is possible for many people to consume their own content on their personal devices, even while in the same room with other people (Turkle, 2012).

Change in Value Systems towards Individualism in the United States

Examination of the span of history underscores a trend towards increasingly individualistic values. In an analysis of key words in books published in the United States and the United Kingdom over a period of two hundred years, Greenfield found that word frequencies with collectivistic meanings were reduced while words with

individualistic and materialistic meanings increased (Greenfeld, 2013). Even the admired

social models of teenagers have changed towards more self-focused individuals. Cowen

(2000) reports that in 1898, a poll asked young teens, 'What person of whom you have

ever heard or read would you most like to resemble?' Seventy eight percent of the list

comprised of politicians, moral leaders and military heroes, all community leaders.

Nearly 200 years later, in 1986, the list of ten most admired figures by teenagers was

filled primarily with entertainers (Serazio, 2010).

More recently, Twenge and colleagues found that today's emerging adults, more

so than past generations, are increasingly narcissistic (Twenge, Konrath, Foster,

Campbell, & Bushman, 2008). Narcissism is a personality characteristic associated with

fame (Raskin & Novacek, 1991). Conversely, Konrath and colleagues (2010) found that

dispositional empathy (i.e. concern for others) declined from 1979 to 2009, with the

biggest decline occurring since the year 2000 (Konrath, O'Brien, & Hsing, 2010).

Links between Media and Individualistic Values

Some social scientists suggest that the recent rise in individualistic traits could be

influenced by the rise of communication technologies that encourage and promote self

display (Park, Twenge, & Greenfeld, 2013). Research with emerging adults supports the

idea that newer social media promote crafting one's image for a virtual audience

(Salimkhan et al., 2010). An experimental manipulation of college students found that

social media are linked to positive self views (Gentile, Twenge, Freeman, & Campbell,

2012). A field experiment that examined what utility motivates people to post on Twitter

found that image-related utility was larger than intrinsic-utility for most users (Toubia &

Stephen, 2013). And in our discussions with focus groups of 4th and 6th grade children in

Los Angeles, we found that participants used social media and online video sharing to seek audiences beyond their immediate community (Uhls & Greenfield, 2012).

Contemporary television content is also linked to individualistic values. For instance, our content analysis of preteen television over the last 50 years found that fame was the number one portrayed value in the two top shows in 2007, while financial success had also risen to number five (Uhls & Greenfield, 2011). In addition, Reiss and Wiltz (2004b) found that the motivation for social status was most strongly related to reality TV consumption.

The Current Study

Despite this research, little is known about how the values of today's early adolescents may be affected by the new informal learning environment (Greenfield, 2009b). As digital natives in a sensitive developmental period, they may be especially influenced. Our line of research began with an examination of television content and followed with focus-group discussions; we found that preteens made connections between the social models on TV, and their own ability to reach a broad audience online by posting photos, videos and status updates as well as collecting "friends," on social networks (Uhls & Greenfield, 2012). The next step in our work is a national study of children, during the transition from late childhood to early adolescence; this study will additionally fill a gap in the literature.

Hypotheses

1. A carefully curated image is a component of being famous (Braudy, 1997). In line with Greenfield's theory and our past research, we predict that fame, financial

success and image-oriented goals will cluster together forming an individualistic value system.

2. In line with our past research (Uhls & Greenfield, 2012), valuing individualism will be predicted by watching more TV and spending more time on social networking sites, with the two combined activities predicting this value system more strongly than each on their own.

3a. Our content analysis of popular preteen TV content found that community feeling was a top depicted value in the years 1967, 1977, 1987 and 1997 (Uhls & Greenfield, 2011). These years were before communication technologies saturated the media landscape ("Internet growth statistics," 2011; Rideout et al., 2010). In contrast, it was below the mean the value hierarchy in 2007. As such, the importance of community, in this study characterized through the value of collectivism, will have either no relationship, or will be negatively related, to media.

3b. Conversely, collectivism will have a relationship with non-technology activities, because many of the measured activities involve in-person social interaction and/or cooperative or helping behaviors.

4. Children who post videos online will value individualism more than those who do not post videos online.

Method

Participants

Three hundred and twenty seven children participated in an online survey posted on the software Survey Monkey. Participants were recruited by asking parents of children ages 10 to 14 to allow their children to take the survey online on their own

computer, tablet or smart phone. Respondents were offered entry into a raffle for a $100 gift card upon completion of the survey. The announcement was placed on the online Craig's List and Patch (a community based online newspaper) in cities across the United States. We also placed a notice in a free subscription-based online newsletter sent by Greatschools.net, a national website targeted to parents, and this is where the majority of participants came from. Because signed parental permission could not be obtained electronically, UCLA's IRB determined that the research qualified for a waiver of signed parental permission under 45 CFR 46.117(c)(2); as such, parental assent was assumed if the participant took the survey.

Twelve participants reported to live outside of the United States and were thus not included in the final analysis (N=315; 39% boys). Ages ranged from 9-15 years ($M = 12$; See Table 1 for breakdown). Ethnic make-up was 52% European American (e.g. White), 6% Hispanic, 4% African American, 5% Asian, 16% mixed ethnicities, 3% other, and 14% declined to answer. Participants reported that four percent of their mothers and 5% of fathers did not complete high school; respectively, 26% and 29% did not complete college; 34% and 31% completed college; 32% and 28% went to school beyond college; and 4% and 7% did not know their parents' educational attainment.

In addition to basic demographic questions, participants were asked about daily activities, favorite kinds of television and social media practices. At the end of the survey, emails were requested for entry into the raffle, and respondents were thanked for their participation.

Geography. Participants were asked to give the city and state they lived in. Based on which state they entered, each respondent was grouped into one of four regions,

defined by the United States Census ("Census classification of regions of US," 2013). Participants lived in regions across the country with 21% from the North East, 14% from the Mid-West, 28% from the South and 38% from the West ("Census classification of regions of US," 2013).

Data. We first checked the data for repeated IP addresses. Although two people in the same house could have used the same device to take the survey, we could not be sure the same person hadn't taken the survey two times and thus decided to delete these few cases. We also had a small number of respondents from out of the country and cut these; thus, the reported results only include participants who said that they lived in the United States.

Independent Variables

Activities. Participants were asked time how much time they spent on a variety of activities on an average day (e.g. watching television, playing video games, texting, playing team sports etc.) scaled from 0 (Never) to 5 (4 Hours or More). The survey software randomly ordered the activities for each participant.

In order to determine whether the list of 14 activities would form distinct categories, an exploratory factor analysis was run (maximum likelihood, promax rotation) which yielded three factors. As suggested by factor analysis literature (Walker, 2012), all items that loaded above .4 were included. The Kaiser-Meyer-Olkin measure verified the sampling adequacy for the analysis, KMO = .82, and the Bartlett's test of sphericity were significant (χ^2_c=1344.9, p=.00). The three factors had eigenvalues over Kaiser's criterion of 1 and in combination explained 56.23% of the variance. The items that clustered on the same factors suggested that the first factor represents media communication activities,

the second factor represents media consumption activities and the third factor represents non-media activities. Table 2 shows the factor loadings after rotation; the bolded items were used in the respective factor scores.

The variables that loaded onto the three factors were then summed and averaged in order to create three separate activity variables: 1) *Communicating with media* which includes texting and talking on cell, instant messaging, and social networking; 2) *Consuming media* which includes watching TV and movies, surfing the Internet, playing videogames and watching videos online; and 3) *Non-technology* which includes helping others, playing outside, playing sports and hanging out with friends.

Television shows. Participants were asked to rank eight types of shows from favorite (1) to least favorite (8); they were also given an option to answer that they did not watch these kinds of shows. The types of shows were: TV shows about families; TV shows on kids on Nick or Disney; TV shows about young adults; News; Reality TV about people; Sports; Reality TV about competition; and Comedy sketches. Every type of TV show was prompted with examples (e.g. *American Idol* for Reality TV competition, *Big Time Rush* for TV shows on kids, and *Kardashians* for Reality TV people). The survey software randomly chose the order the shows were placed for each respondent; thus order was variable across subjects.

Informed by our previous work (Uhls & Greenfield, 2011; Uhls & Greenfield, 2012), we chose three types of programming to test: Reality TV about people; Reality TV about competition; and TV shows on kids. Because the rankings were not forced, many participants gave several shows the same rank (e.g. reality TV competition and comedy both as number one). To check construct validity, we ran correlations between the

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variable derived from the survey item "On an AVERAGE day, how long do you watch TV shows (on set, online, on phone, etc.)" , which was rated on a 6 point Likert scale from Never (1) to 4 Hours or more (6), and each of three types of shows. While both kinds of reality TV shows were significantly correlated ($R(296)=.38$ $p=.00$), the other television variables were neither correlated to each other nor to the overall TV viewing question. Further examination of the data revealed inconsistent patterns in answers, indicating that the participants did not understand the directions. As such, we felt that the ranking of TV shows were not reliable. Fortunately, we had asked participants to report on total amount of TV watching on an average day in our daily activities questions and were able to measure television watching though this measure.

Social networking sites. We asked participants to tell us whether they had a profile on a social networking site; the reported analyses include only those who answered affirmatively (n=142; 45.1%). Affirmative responses led to 15 randomly ordered questions (for each survey), which asked how frequently respondents performed a series of activities particular to social networking sites on a five-point Likert scale from 1 (Never) to 5 (Almost Always) were performed. Examples of activities were how often they posted photos or updated their status. These scores were added together to create a variable called social media sum. Providing construct validity, this measure was significantly correlated with the social networking question (i.e. "On an AVERAGE day, how long do you post on social networking sites) ($r(138)=.63$, $p=.00$). We also asked how many "friends" participants had on their preferred social networking site.

In addition, questions relating to online video sharing activities were asked: participants were asked whether they had an online video sharing account; whether they

posted video content on this account; and to list the number of views and comments they had on their most popular posted video.

Dependent Variables

Values. Drawing from our previous research (Uhls & Greenfield, 2012), we asked participants to rank eight values, from most important (1) to least important (8); these were randomly listed on each survey by the software. The values were fame, community feeling, financial success, self-acceptance, achievement, tradition, image, and kindness; in addition, each item contained a definition of the value. The ranking was not forced, and as with the television content, many participants ranked values with a similar number (e.g. community feeling and self acceptance both at number one).   After further examining the data, we found inconsistencies in the rankings, suggesting that some participants did not understand how to rank the items. Determining that it was challenging to establish value priorities when some participants ranked values at equivalent levels, and others may not have understood the directions, we did not use this measure.

Luckily, we included ten questions about the importance of future aspirations (e.g. In the future, you will be famous) that were associated with the same list of investigated values (Kasser & Ryan, 1996). Because our interest was the value of fame, we asked three questions related to this construct, concerning importance of future recognition, admiration and fame. All answers were Likert scaled from 1 (Not at all important) to 5 (very important). We performed a confirmatory factor analysis (maximum likelihood), and used the promax method of oblique rotation; this method is suggested when theory indicates that your variables may be correlated (Walker, 2012; Rohan, 2000). The first

run yielded three factors, but one question, "You will know and accept who you are," showed cross loadings, so we dropped it and reran the analysis. In the second run, two factors emerged, but "You will be successful in your chosen field" showed cross loadings and was dropped. The final factor analysis yielded two distinct factors (see description of these in Table 3) based on eight items, with a KMO of .80 and significance (χ_{2c}=631, p=.00). The two factors had eigenvalues over 1 and explained over 60.61% of the variance. See Table 3 for a breakdown of the questions and factor loadings. The items that loaded onto each factor were summed and averaged. The first factor held items (i.e. name known by many people, be famous, admired by many people, be rich and "achieve" the look you want) that represent a self-oriented (i.e. individualistic) value system. The items (i.e. live near your family and follow in their footsteps, help your family and help others in need) in the second factor represent collectivistic values. Thus, the factor analysis confirmed Hypothesis 1 that fame and image-oriented goals would group together forming an individualistic value system.

Analysis

  Factor analysis: weighted versus unweighted variables. The literature on factor analysis suggests that weighting individual items by their factor loading can be useful because items that have higher loadings have larger effects on the factor score. However, a potential problem with this method is that the factor loadings may not be an accurate representation of the differences among factors due to the researcher's choice of extraction model and/or rotation method (DiStefano, Zhu, & Mindrila, 2009). In other words, to simply weight items based on factor loadings might not result in a noteworthy improvement over unweighted items.

Since the literature suggested that either method could be valid, we created and test weighted sum variables as well as unweighted sum variables. We found no differences in our results with either and hence report on unweighted sums.

Results

Descriptives

Daily Activities. Consistent with other national surveys and lending external validity to our results, participants spent the majority of their leisure time (47%) on an average day consuming media (Rideout et al, 2010). Figure 1 shows the breakdown of the three categories of activities, which are 1) *Communicating with media*: texting and talking on cell, instant messaging, and social networking; 2) *Consuming media*: watching TV and movies, playing videogames surfing the Internet and watching videos online; and 3) *Non-technology*: helping others, playing outside, playing sports and hanging out with others.

Social Media Practices and Age. 28.7% of children under 13 years of age reported having a social network site (see Figure 2). Facebook was by far the most used network. If the participant reported that they did not have a social networking profile, we asked whether their parents wouldn't allow it or whether they didn't want one. The majority of those who reported they did not have a profile were under 13 (81.5%). Reasons for not having a profile were: they were not allowed (59.3%); and they didn't want one (40.7%). In addition, respondents answered how many "friends" they had on their most used social networking site; the median was 150. We report the median rather than the mean because a few respondents had a large number of "friends," which pulled

the mean in a higher direction (i.e. 639) and did not accurately reflect the sample as a whole.

Online Video Sharing. Participants answered whether they had an online video account, 36% said yes (see Figure 2). Next they were asked whether they posted video content to this site, 36% said yes while 13% said someone else posted a video of them; if they reported that a video was posted, participants were asked to report from memory (i.e. without opening their account and checking the figure) the number of views their most popular video had. We asked this in order to judge whether the number of comments and views was noteworthy; in other words, if they remembered the number, as they had in our focus group discussions, our reasoning was that they were aware and absorbing these factors in their environment. Sixty participants responded with a range of zero to 1.2M, and a median of 60. In addition, when asked about comments, 58 respondents answered how many comments were on their most popular video with a range of zero to 13,350 and a median of two.

Relationships Between Values and Media

        Demographic differences: *Age, ethnicity and parental education.* We ran a first order correlation analysis to examine which demographic variables were associated with our dependent variables. As expected from prior research (Greenfield & Quiroz, 2013), age was negatively associated with collectivism $r(254)=-.18$: younger participants were more collectivistic than older. Age was not associated with individualism. Neither maternal nor paternal education was associated with either value system. The two values were moderately correlated $r(251)=.21$. This is theoretically valid, as one typically holds several values at the same time (e.g., one can want to be famous and to help one's family)

(Schwartz & Bilsky, 1987). Due to previous research suggesting that maternal education informs the development of values (Garnier & Stein, 1998), we included both maternal education and age as control variables in all analyses.

Ethnicity, gender and regional differences. A primary goal of this study was to examine a large sample of youth from across the country, so we tested whether regional differences were related to the two values by performing MANOVAs. In addition, we looked for differences in gender and ethnicity. This analysis did not reveal a significant relationship between either of the value systems and the variables of gender, ethnicity, or region of the country.

Values associated with television and social networking sites. We ran a hierarchical regression model in order to determine whether social media use and viewing of TV jointly predicted either of the two value systems. Age and maternal education were entered in the first step, TV watching was entered in the second step and social-networking sum was entered in the third. While model two (showing the influence of television on individualism) was significant, the last model, with both the control and dependent variables entered, predicted the largest portion of the variance for individualism; collectivism was not predicted. Thus, online social networking predicted individualism above and beyond the influence of watching television. Table 4 reports the results. This finding confirms Hypothesis 2 that individualistic value systems are related to both TV watching and social networking online.

Values associated with daily activities. To determine whether children's daily activities were associated with either value system, we ran two hierarchical regression analyses with the three categories of activities (i.e. media consume, media communicate

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and non-technology) as predictors of each value's importance. Age and maternal

education were entered at the first step, with all of the activities entered at the second step.

Individualism was not related to any category of activity, and the overall model was not

significant. However, after controlling for age and maternal education, nontechnology

activities predicted collectivism (ß=.25) but did not predict either media activity. Thus,

Hypothesis 3a, which predicted that collectivism would either not relate to media

activities or be negatively related, was supported. In addition, Hypothesis 3b, which

predicted collectivism to be related to nontechnology (mainly social) activities, was

supported. Variables in the model are summarized in Table 5.

Online video sharing and individualism. We did not find a significant

difference in valuing individualism for youth who did or did not post online videos. Thus,

hypothesis 4, that children who post videos online will value individualism more than

those who do not post videos online, was not supported**.**

Discussion

Lending support to Greenfield's theory of socia change and development, we

found that preteen media practices predicted to differences in their value systems. We

discuss our results below.

The Findings

Children's daily activities. Our exploratory factor analysis found that children

tended to perform specific kinds of daily leisure activities, with media falling into two

distinctive categories, consumption and communication. This is an important finding

because many studies tend to group media use together (e.g., Rideout et al., 2010). Yet

children, like adults, use media in a variety of ways, including for socializing and hanging out (Ito et al., 2009); these distinctions were made clear in this sample.

Values. Our confirmatory factor analysis found that individual aspirational items clustered onto two value systems, individualism and collectivism. However, two items that would typically fall in the individualistic category, achievement and self-acceptance, showed cross loadings and were dropped from the analysis. Hence, the final component for individualism included only the items fame, name known, status/ admiration, money and image. While we predicted those items to cluster together, we expected that achievement would also be part of this component. The value of achievement is part of the fabric of the United States, a protypical individualistic nation with a centuries old American ideal of working hard to achieve. However, research indicates that work centrality for emerging adults is declining (Twenge, Campbell, Hoffman, & Lance, 2010). Perhaps this result signifies that this aspect of American individualism is becoming less important.

Values: Daily Activities. As expected, media activities were not related to a collectivistic value system. We did find however that activities that did not involve technology were related to this value system; most of the activities in this factor, helping others, playing outside, playing sports and hanging out with friends, take the child into a community. This provides some rationale for this finding.

Values: TV and Social Media. In past research we found that preteen television shows and reality TV shows model fame and fortune as a realizable goal for children (Uhls & Greenfield, 2011). In our follow up study, we found that the messages in these shows were absorbed by preteens in Los Angeles and that online video sharing and other

social media practices appeared to encourage desire for attention and audience (Uhls & Greenfield, 2012). While that study did not directly correlate individual values with media consumption, the implication was that messages in passive media combine with the ability to act on these messages using interactive media, thus promoting the value of fame as a top value in the group as a whole.

Confirming the findings in our qualitative sample, social networking sites, and watching TV, predicted individualism. Even though we had two broader categories of media, consumption and communication, neither of these factors were significantly related to a self-oriented value system. When we got more granular, television, an older and more passive technology, and social networking, a newer and interactive media, both independently contributed to the individualistic value system while jointly predicting a larger percentage (i.e. 16%) of the variance.

Posting Videos Online. Unexpectedly, we found no difference in valuing individualism between children who posted videos and those who did not. A relatively small number of children posted videos – 56 (unlike our Los Angeles focus group this number was well below the majority), and thus low power could have contributed to this finding.

Social Media. Due to regulations on Internet access (i.e. the Children's Online Privacy Protection Act of 1998 [COPPA]) whereby websites cannot collect any information on kids under 13) children under 13 are not legally allowed to sign up for most social networking sites. This diverse sample allowed us to determine whether children under 13 use social media (Figure 2). We found that a higher proportion of children under 13 year had video accounts (i.e. 43%) than had social networking profiles

(i.e. 28.7%), even though legally the COPPA regulations apply to any site that collects data on users that is shared with third parties.

We also found that a greater number of children under 13 reported that someone else posted a video of them than children over 13. This finding replicates what we found in our focus groups (i.e. several examples were given of an adult who had posted a video of the participants) and demonstrates that adults validate the practice to children.

The Learning Environment and the Connection to Individualism

In his seminal article, Triandis and colleagues (1998) detailed characteristics of individualistic cultures, with in-groups that are highly segmented, requiring contributions only at certain times or place. Other listed attributes were being good at meeting outsiders, forming new in-groups, and getting along with new people. These are all features that are easily afforded on social networking sites (Manago, Taylor, & Greenfeld, 2012). Indeed, although this quote is from 1998 and is about individualism in general, it could be applied to online social networking.

> "People in individualistic cultures often have greater skills in entering and leaving new social groups. They make "friends" easily, but by "friends" they mean nonintimate acquaintances."(Triandis et al., 1988)

These features of individualistic cultures effortlessly map onto social networking sites (Bessiere, Kiesler, Kraut, & Boneva, 2008), a dominant mode of communicating technologically in the 21st century.

In the past fifteen years, the informal learning environment for children has changed. Television, one of the primary cultural products for children, reflects this shift with programming targeted to young people that promote fame and status with highly

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salient social models (Uhls & Greenfield, 2011). At around 11 years, children realize that material goods are scarce and cost money, and their meaning becomes aligned with social status; thus messages about material goods in these media become relevant for this age group (John, 1999). Interactive media also cater to these desires, allowing people to display themselves in a semi-public format (Manago et al., 2008). The rapid growth in interactive media, and their exponential adoption by young people, indicates the primal attraction of these tools, which seem to appeal to human beings' need to belong (Baumeister, 1995; Nadkarni & Hofmann, 2012). Adolescents, who are striving towards identity formation and a desire for popularity, accordingly use these tools to curate their images and search for status through gathering large number of friends, likes, and comments (Uhls & Greenfield, 2012).

Television on its own predicted the individualistic value system, but with a much smaller portion of the variance. Social media, above and beyond the influence of television, had the stronger relationship with individualism, indicating that the power of this new communication medium, with its ability to allow anyone to manage and mediate identity, may be driving the association with adolescent values. As Dunbar noted (Dunbar, 1992), humans tend to form stable social relationships with approximately 150 people. Accordingly, those who focus on attracting several hundreds to thousands "friends" online may be more inclined towards superficial friendships, developed through status symbols and image.

Implications

We found that more traditional non-mediated activities, such as playing sports and hanging out with others, are related to collectivistic value systems. These kinds of

activities require one to be in the presence of, cooperating with, or helping others and thus would lend themselves to building a sense of community.   Communication technologies, on the other hand, along with the television content that reflects the cultural zeitgeist, seem to be influencing values towards individualism. The question arises -- as media become part of our 24/7 connected lives,- is their potential for increasing individualistic values such a bad thing? After all, individualism is associated with innovation and higher GNP (Chui et al., 2012). Yet while social media do seem to satisfy the fundamental need to belong (Nadkarni & Hofmann, 2012), Baumeister (1995) also states that formation of further social attachments beyond a minimum level is subject to diminishing returns. Some claim that new communication technologies' such as social networking sites are creating a participatory and engaged culture, where all can access its many benefits to connect and engage with others (Jenkins, 2009). Others however posit that these technologies may be isolating and pushing humans further apart (Turkle, 2012). Lending support for the latter argument, a recent experience-sampling study of Facebook use and subjective well-being found they were negatively correlated (Kross et al., 2013). Additionally, a within-subject study of affiliative cues between friends using four different modes of communication found face-to-face communication led to the highest affiliation and self-reported bonding, with the greatest difference between face to face and text based communication (Sherman, Michikyan, & Greenfield, 2013). Our study, through an examination of the values of individualism and community, indicates that new technologies seem to be pushing us further apart.

Limitations and Future Directions

Our study was a convenience sample, and the children of the parents who subscribe to Greatschools.net, where the majority of our respondents came from, may not be representative of all of the socioeconomic differences in the United States. For example the parents who subscribe are those who want to know more about schools and their children's education; these kinds of parents likely pay attention to their children's media habits and may set limits on their use. Future research should look to a nationally representative sample of children.

We did not force one choice for each ranking, and as a result ended up with data we could not use about value priorities and ranking of favorite TV shows. Future research should force single choice rankings.

Future studies should seek to determine whether a stronger causal relationship can be inferred between these media and individualistic values with studies that use longitudinal data or experimental manipulation.

Table 1

Age breakdown of sample

	9 years	10 years	11 years	12 years	13 years	14 years	15 years
Number	n=28	n=42	n=59	n=48	n=49	n=45	n=38
Percentage	9%	13.6%	19.1%	15.5%	15.9%	14.6%	12.3%

Table 2

Predictor: Factor Loadings for daily leisure activities

Item On an AVERAGE day, how long do you do the following?	Factor 1 (Media communication)	Factor 2 (Media consumption)	Factor 3 (Non-Technology)
Text on your cell/ mobile phone.	**.733**	.036	-.058
Talk on your cell/ mobile phone.	**.466**	.110	.225
IM/ Chat	**.931**	-.152	-.032
Post on Social Networking Sites	**.861**	-.049	-.015
Watch TV shows (on set, online, on phones)	-.152	**.716**	-.092
Watch videos online (YouTube, etc)	.16	**.606**	-.032
Play videogames.	--.117	**.540**	-.030
Watch movies	.011	**.578**	.133
Surf the Internet for Fun	.336	**.519**	-.075
Play outside.	-.130	-.078	**.891**
Hang out with friends (not doing homework)	.052	.194	**.534**
Play team sports	.113	-.065	**.465**
Help out others	.087	.013	**.558**

Note: Bolded items represent highest loading items on each factor (order of items changed from subject to subject). Oblique rotation provided two matrices, and we report on pattern matrix.

Table 3

Outcome: Factor loadings for aspirations

Item		
	Factor 1	Factor 2
Tell us how important the following will be to your future. IN THE FUTURE…	(Individualism)	(Collectivism)
Your name will be known by many people.	**.826**	.051
You will be admired by many people	**.693**	.101
You will be famous.	**.826**	.006
You will achieve the "look" you want.	**.654**	-.087
You will be rich.	**.589**	-.069
You will help your family.	-.116	**.732**
You will live near your family and follow in their footsteps.	.121	**.437**
You will help others in need.	.006	**.640**

Note: Bolded items represent highest loading items on each factor (items were asked in random order on survey). Oblique rotation provided two matrices and we report on the pattern matrix.

Table 4

Television and social networking Predict Valuing Individualism

Variable	b	SEb	ß	Adj. R^2	F
Step 1				.02	1.57
Age	-.08	.05	-.14		
Maternal Ed.	.09	.08	.10		
Step 2				.04	5.36**
Age	-.06	.05	-.11		
Maternal Ed.	.13	.08	.15		
Watch TV shows	.22**	.06	.32**		
Step 3				.16	6.08**
Age	-.09	.05	-.16		
Maternal Ed.	.17*	.08	.20*		
Watch TV shows	.19**	.06	.27**		
Social Networking Sum	.31	.11	.25**		

*Notes: * p<.05; **p<.01*

Table 5

Non technology activities predicts valuing collectivism

Variable	b	SEb	ß	Adj. R^2	F
Step 1				.02	3.44
Age	-.03*	.01	-.15*		
Maternal Ed.	.00	.02	.01		
Step 2				.06	4.03**
Age	-.03	.02	-.13		
Maternal Ed.	.01	.02	.01		
Media Communicate	-.05	.05	-.08		
Media Consume	-.02	.04	-.04		
Non Technology	.20**	.05	.25**		

*Notes: * p<.05; **p<.01*

Figure 1

Percentage of day spent on each leisure activities

Daily Activities

32.65%

46.68%

20.67%

- Consume Media
- Communicate with Media
- Non Technology
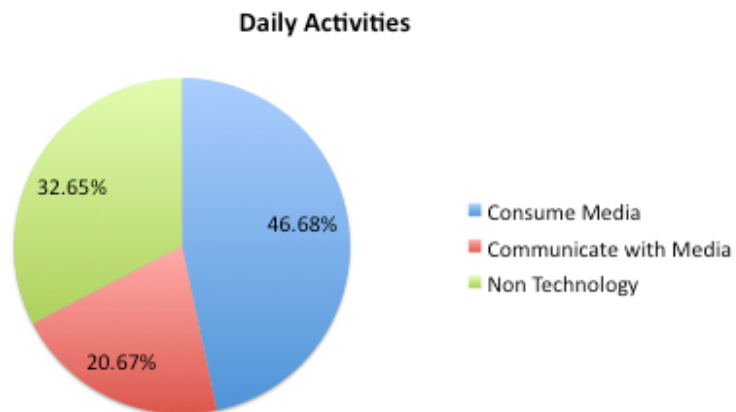
Note: Communicating with media: texting and talking on cell, instant messaging, and social networking; *Consuming media*: watching TV and movies, surfing the Internet, playing videogames and watching videos online; and *Non-technology*: helping others, playing outside, playing sports and hanging out with others**.**

Figure 2

Social Media and Online Video and Age

Have SNS Profile (n=142)   Have Video Acct. (n=105)   Posted Videos (n= 56)   Someone else posted videos of me (n=20)
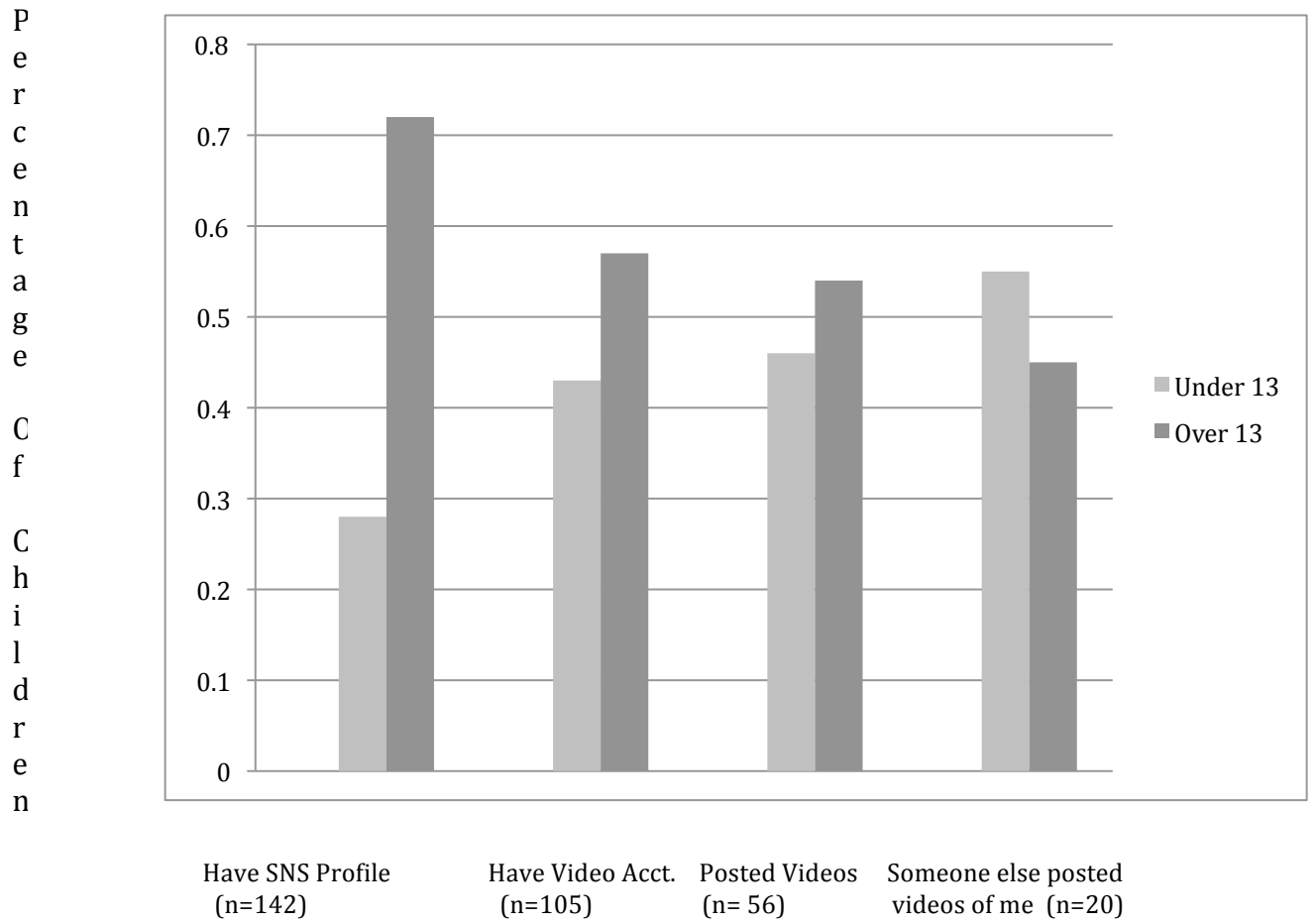
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Five Days Without Screens Improves Preteen Skill in Reading Human Emotion

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Acknowledgements

Abstract

Purpose

To determine whether an extensive reliance on screen-based communication, which potentially limits exposure to in-person interactions, diminishes preteens' ability to recognize and interpret nonverbal emotion cues.

Method

Fifty-one preteens spent five days at an overnight nature camp where screens were not allowed. They were compared with school-based matched controls (n=54) that retained usual media practices. Both groups took pre- and post-tests that required participants to infer emotional states and feelings from facial expressions and videotaped scenes with verbal cues removed. Change scores, for the two groups were compared using gender, ethnicity, media use, and age as covariates.

Results

After five days without any screen-based media, the emotion-recognition skills of the experimental group improved significantly more than those of the control group for both facial expressions ($F_{5,\ 88}$ = 4.06, $P < 0.05$; d=.33) and videotaped scenes ($F_{5,\ 87}$ = 7.24, $P < 0.01$; d=.66).

Conclusions

When social interactions with peers and adults were restricted to in-person communication, emotion-understanding skills increased. Results imply that the extensive use of screen-based communication may diminish these skills.

Implications and Contribution

This study found that emotion-understanding skills were augmented when youth communicated only in person without access to digital media. It therefore contributes to an understanding of how the displacement of in-person interaction with screen-based communication may compromise social learning. It is essential to create opportunities for in-person interactions so that children may acquire the social skills necessary for healthy development.

Introduction

For several millennia, *Homo sapiens'* primary method for social learning and communication was face to face. In the 21st century, as mobile technology and the Internet became available to most of the world's population (1), digital media have become an increasingly prevalent factor in the informal learning environment (2). Research indicates that children, 8-18, spend over 7 ½ hours a day, seven days a week using media outside of school (not including texting) (3). Moreover, teenagers, ages 12 to 17, report to use text messaging in their daily lives more than any other form of communication including face to face socializing (4). Even children younger than eight years of age spend 3 ½ hours a day, seven days a week watching and interacting with screens (5). This extensive screen time may be displacing in-person activities. For example, in 2010 versus 2005, fewer parents reported reading to their children under two (i.e. 44% vs. 58%) and those that do read to their children, read for a reduced amount of time (i.e. 23 vs. 33 minutes) (5).

While children have for decades spent a great deal of time watching television, the advent of mobile technology enables today's youth to access and engage with screens 24/7 outside of school in cars, on vacations, in restaurants, and even in bed. Given that media exposure begins at early ages, consumes the majority of youth leisure time, and takes place in many different environments and contexts, our study examined whether, under natural conditions, losing access to all screens would increase sensitivity to social cues that convey affect by increasing face-to-face interaction. If so, the implication would be that reduced sensitivity to emotion cues could be a byproduct of displacing in-person interaction with screen time.

Face-to-Face and Mediated Communication

When engaging in face-to-face communication, social information is conveyed by vocal and visual cues within the context of the situation. Long before digital media became ubiquitous, investigators developed theories, such as the Cues-Filtered-Out theory, which postulated that the lack of nonverbal cues in computer-mediated interactions could lead to impersonal communication (6), while others pointed out deficits in computer-mediated communication due to lack of social-context cues (7). Nonverbal communication, defined as communication without words, includes apparent behaviors such as facial expressions, eye contact, and tone of voice, as well as less obvious messages such as posture and spatial distance between two or more people. The understanding of these kinds of nonverbal social cues is particularly important for social interaction because of the need to modify one's own behavior in response to the reactions of others (8).

In addition, children who better understand cues in a social environment may

develop superior social skills and form more positive peer relationships (9, 10). The capability to effectively process emotional cues is associated with many personal, social and academic outcomes (8, 10-12). Because digital media, often text based, inherently lack these kinds of cues, their extensive use could curtail face to face experiences necessary to master important social skills, even though they are used for social communication (13).

Reading Nonverbal Emotion Cues: Processes of Development and Learning

Features of face-to-face communication such as eye contact and pointing are crucial when teaching young children about social interaction and the world they live in (9, 14). Gaze following, for example, is one well-studied mechanism in the literature on human development, which guides infants from around one year of age to learn about objects and humans. Humans also learn from cues such as pointing when interacting socially. Once a child is able to attend to an object that another person highlights, their ability to learn through social interaction increases. These means of learning are available only when a child can see another's face and physical being (15, 16).

There is longitudinal evidence that in-person interaction develops the accurate understanding of nonverbal emotion cues. For example, cooperative interaction among siblings in the third year of life predicts skill in affective labeling of facial expressions and understanding of emotion in dramatized puppet scenarios in the fourth year of life (17). The children's positive behavior toward their siblings in the third year of life continued to predict more advanced understanding of emotions at six years of age (18). These longitudinal findings point to in-person peer interaction as a key learning experience in the early acquisition of skill in reading nonverbal emotion cues.

As children grow older, their peer focus shifts from siblings to unrelated peers, whom they usually meet in school. In preadolescence, the period under investigation in the present research, social interaction skill with peers, assessed in an in-person school situation, is correlated with an understanding of feelings presented in narrative scenarios (19).

The Video Deficit

Research regarding what children do and do not learn about the social world through screens, particularly television, is robust (20-22). Much of the research concentrates on early learning from imitation, socially contingent interaction (e.g. joint attention and gaze following), and word learning (23, 24). This body of research shows that children learn better from live interaction than from screens. For example, Hayne and colleagues (25) performed a series of experiments using matched live and videotaped models that performed a series of actions with a rattle and stuffed animals. While children imitated televised models, the mean imitation scores were significantly higher in the live than in the video condition. This discrepancy in imitation appears to last until 30- months and was coined the "video deficit".

Research Question and Hypothesis: The Present Study

Does digital interaction promote the development of emotion understanding to the same extent as in-person interaction? If not, one would expect that a shift in children's lives to solely in-person peer and adult communication would enhance skill in understanding the emotions of other people. We devised a field experiment to test this research question.

Methods

Our experimental condition was a naturally occurring environment where children had no screens for five days. We investigated whether being limited to face-to-face communication made children more sensitive to the understanding of nonverbal emotion cues. Our hypothesis was that, relative to a matched control group who continued their usual screen-based activity, children's skill at recognizing emotion from nonverbal cues would improve after five days without screens.

Participants

Our participants were pre-teens in the sixth grade. We chose this age group because:

1. By the time they reach early adolescence, children are able to integrate information from many nonverbal cues, including face, gesture and tone to make inferences about social situations (8).

2. The preteen period is when children begin to access media without the mediating influence of adults; media become a self-socializer (26).

3. This is an age when many children begin to access mobile technology and media use peaks (3).

The study design was a quasi-experiment with pretest and posttest, and a no-intervention matched control group. The study was approved by UCLA's Institutional Review Board, #11-002385. Both the experimental and control groups were comprised of sixth graders recruited from the same public school in Southern California. The experimental group included 51 children from the Spring 2012 class, and the control included 54 children from the Fall 2012 class. The groups were demographically matched (Table 1).

Participants in the control group attended school each day between the pre- and posttest with no restrictions placed on their media use by our research team. The experimental group participated in the Pali Institute, an outdoor education overnight camp facility, located 70 miles outside of Los Angeles, where neither electronic devices nor access to any kind of screens was

permitted. The camp is educational; schoolchildren spend the day immersed in activities meant to teach science through outdoor instruction. Given that the school signed up their entire sixth-grade cohort to attend the camp (and planned for the control group to attend in the Spring of 2013), there was virtually no self-selection. In addition, the children's social network was controlled for, because the same children were together at camp with their peers from their sixth-grade classes at school. While we considered other kinds of control groups, such as an overnight camp that integrated screens into the daily activities, we determined that the selection effects outweighed the benefits of matching on the overnight experience; in other words, children who are interested in these kinds of technology oriented camps, and whose parents could afford the cost, would not be a good match for children who are sent to more typical outdoor nature camps. Using the camp as an intervention, rather than asking children to stop using media on their own or bringing them into a lab environment, was an innovative method that provided control, as well as ecological and external validity.

Measures

Participants in both conditions began by taking a one-time online media-use survey, informed by previous research (27, 28). Both groups reported spending approximately 4 ½ hours a day outside of school texting, watching television, and playing videogames. To assess the ability to decode emotional nonverbal communication, we chose two well-validated tests. Because the ability to accurately read emotion in the facial expression of others is one of the most important nonverbal communication skills, we used the Faces subtests of the second edition of the Diagnostic Analysis of Nonverbal Behavior (DANVA2) (29). These included photos of faces (half children, half adults) with happy, sad, angry, and fearful emotions in both high and low intensity.

We also examined the children's ability to integrate different kinds of nonverbal cues within a setting that more clearly reflected real life. The Child and Adolescent Social Perception Measure (CASP) assesses the social perception skills of children and adolescents using ten videotaped scenes in which actors - children and adults - perform a representative scenario in different situations from an adolescent's life (e.g. school, home) (30). In each scene, the verbal content is removed, requiring participants to receive and interpret nonverbal social cues without speech cues. After watching videotaped scenes, the test-taker is asked to make a judgment about the emotional states of the actors.

Procedure

In the pre-test for the experimental condition, children were randomly assigned to one of two administration groups. In both groups, children completed the DANVA2 and the five videos from the CASP, with a distracter task in-between each test. For the DANVA2, each face was flashed onto a screen for 2 seconds after which participants recorded on a sheet which emotion the actor exhibited. For the CASP, Children watched each video and were given up to five minutes to record a written description of the actors and their emotions, before moving on to the next video.

We counterbalanced the testing order across participants in order to control for possible learning and fatigue effects. We followed the same procedure for administering the tests for the control group, except in the control group; children were kept with their classes (each class was one group) and were not randomly assigned. For the post-test we followed the same procedure but used a different set of videos from the CASP.

Analysis

We used the existing coding system of the CASP to create a Total Emotion Score (i.e. the sum of number of accurate, partially correct or wrong answers). Three coders achieved inter-rater reliability on 20% of the CASP responses (Cronbach's alpha = .93).

We calculated change scores by measuring the difference between pretest and posttest scores on each measure. In order to assess the effect of being without screens for five days, we used these scores to investigate potential differences between the experimental and control condition for each of the dependent variables. We ran univariate analyses of covariance, using gender, ethnicity, and age, as well as a composite variable called media-use sum (i.e. total sum of time spent watching TV, playing videogames, using the cell phone and computer) as covariates, in order to control for demographics and prior media use.

Results

For the faces stimuli, we found that children who were away from screens for five days improved significantly in reading facial emotion, compared to those in the control group, who experienced their normal media exposure during an equivalent five-day period ($F_{5, 88} = 4.06$, $P < 0.05$; $d=.33$). In the experimental condition, participants went from an average of 14.02 errors in the Faces pretest (including both child and adult faces) to an average of 9.41 errors in the posttest, a reduction of nearly four errors, while the control group reduced their errors by only 1.98 (we attribute this to a practice effect). Thus the group who attended camp without personal media improved more than twice as much as the control group, who experienced their usual amount of screen time. Figure 1 breaks the change scores down for adult and child faces, showing the same pattern.

We found an even stronger effect when using the videotaped scenarios. Ability to correctly identify the emotion of actors was significantly greater for the children who had experienced five days of camp without personal media than for the control group ($F_{5, 87} = 7.24$, $P < 0.01$; $d=.66$). Scores improved between pre and posttest in the experimental condition by 2.45 points; in the control group, children's scores decreased by .04. Thus, children in the experimental group, after five days without screens, showed improvement in their ability to recognize nonverbal emotional cues in videotaped scenes, while the emotion-reading cues of the control group essentially stayed flat (Figure 2).

Discussion and Implications

In today's world, digital media use begins at a very early age, making it essential to assess the effects of displacing in-person communication with screens. Our study demonstrated that, in only five days of being limited to in-person interaction, preteens improved on measures of nonverbal emotional understanding, significantly more than a control group. The time they spent engaging with other children and adults face-to-face made an important difference. Another possibility is that nature activities could have caused the observed improvement in reading emotions. However, we are aware of no research showing that being in nature, which is ostensibly more isolated from people, could help someone learn to understand the emotions of other individuals. It follows that the augmentation of in-person communication necessitated by the absence of digital communication was responsible for the observed experimental effect. The implication is that digital screen time, even if it is utilized for social interaction, reduces time spent developing skills in reading nonverbal cues to human emotion.

Our findings are in line with developmental research pointing to the importance of

in-person peer interaction as a learning process that leads to skill in understanding the emotions of others. They are also in line with findings in neuroscience. For example, recent brain imaging with adult participants showed that the neural synchronization that during face-to-face dialog does not exist when communicating back to back (31).

These findings are particularly significant because skill in reading emotional cues is essential to an individual's ability to function in society. They also have important educational implications: Computers and mobile tablets are rapidly entering classrooms and being put in the hands of every child beginning in kindergarten (32, 33) without sufficient attention to the potential costs (34). A pre-requisite for effective socialization is learning and practicing how to communicate with others in person; these face-to-face experiences should be emphasized in the socialization process. While digital media do provide many useful ways to communicate and learn, our study indicates that skills in reading human emotion may be sacrificed when children' face-to-face interaction is massively displaced by technologically mediated communication.

Table 1

Key Demographics: Experimental and Control

	CAMP	CONTROL
SAMPLE SIZE & GENDER	51 (25 Boys; 26 Girls)	54 (26 Boys; 28 Girls)
AGE	11.86 (.45) Range 11-13 years	11.81 (.52) Range 11-13
ETHNICITY*	26 White (51.0%); 9 Hispanic (17.6%); 1 African American (2.0%); 9 Asian (17.6%); 6 Other/ Mixed (11.8%)	11 White (20.4%); 9 Hispanic (16.7%); 1 African American (1.9%); 19 Asian (35.2%); 14 Other/ Mixed (26.0%)
PARENT'S EDUCATION	Mother: Some high school 2 (3.8%); Finished high school 5 (9.6%); Some college 10 (19.2%); Finished college 15 (28.8%); Beyond college 6 (11.5%); Don't know 13 (25%) Father: Finished high school 6 (11.5%); Some college 9 (17.3%); Finished college 18 (34.6%); Beyond college 5 (9.6%); Don't know 13 (25%)	Mother: Some high school 1 (1.8%); Finished high school 7 (12.3%); Some college 10 (17.5%); Finished college 21 (36.8%); Beyond college 5 (8.8%); Don't know 10 (17.5%) Father: Some high school or less 2 (3.5%); Finished high school 9 (15.8%); Some college 7 (12.3%); Finished college 21 (36.8%); Beyond college 3 (5.3%); Don't know 12 (21.1%)
MEDIA USE: OWNERSHIP	22/51 (43.1%) had their own phone 51/51 (100%) had a computer at home	26/54 (48.1%) had their own phone 52/54 (96.3%) had a computer at home
MEDIA USE: MEAN NUMBER OF HOURS PER SCHOOL DAY	Texting: .94 (1.3) Watching TV: 2.43 (1.4) Playing Videogames: 1.24 (1.3)	Texting: 1.13 (1.6) Watching TV: 2.11 (1.6) Playing Videogames: 1.35 (1.4)

Note: No variables were significantly different between experimental and control groups except for *ethnicity: $t_{(105)}$ = -2.95, $P < 0.01$. However, ethnicity was not correlated with change scores on the dependent variables.
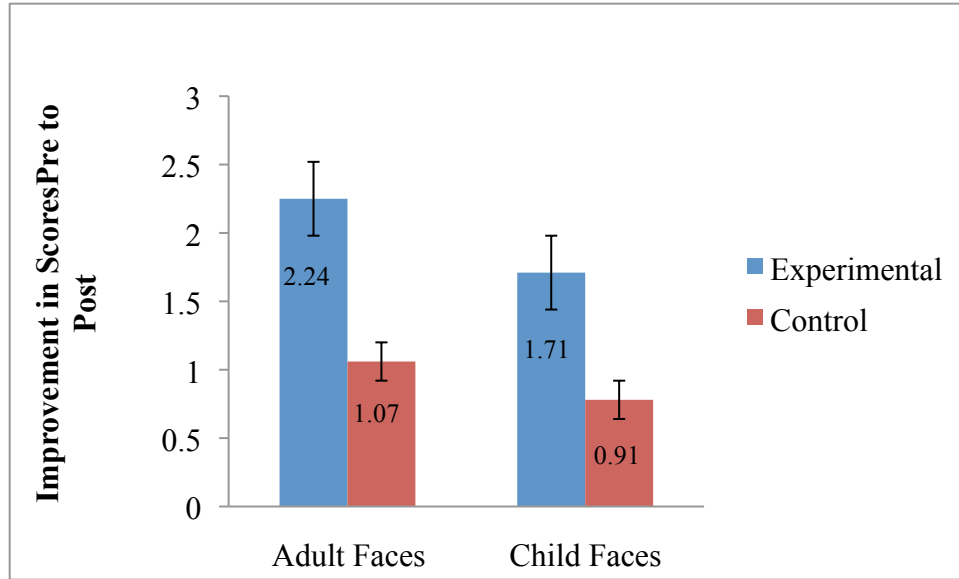
Fig. 1. Error reduction from pretest to posttest in assessing emotion on adult and child faces in experimental and control group ($F_{5, 88} = 4.06$, $P < 0.05$; $d = .31$).
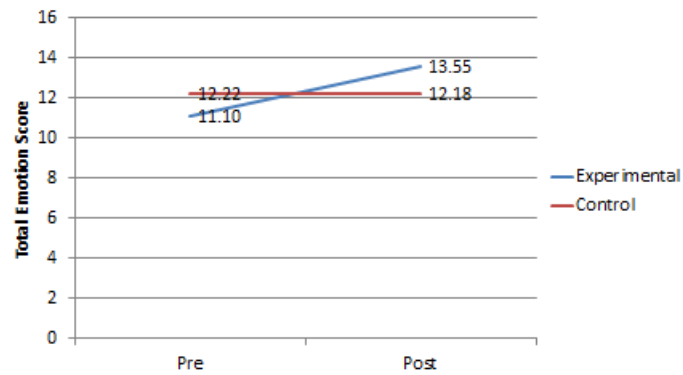
CASP Pre and Post Camp

Fig. 2. Pretest-posttest comparison in the experimental and control groups for the Child and Adolescent Social Perception Test. Pre-test scores were not significantly different between experimental and control. Change scores were significantly different ($F_{5, 87} = 7.24$, $P < 0.01$; $d=.66$)

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Conclusion

The field of media effects is traditionally delegated to communication scholars, but psychologists must begin to recognize and study their effects on youth. This dissertation found that media, a pervasive feature of 21st century society and culture, do indeed influence preteen social development.

The first series of studies, a systematic investigation of the association between values and media, found convincing evidence that a relationship exists between the two. A content analysis found that TV shows greatly magnified their portrayal of the value of fame in the last decade compared to the previous forty years. Focus groups revealed that children are able to enact fame-seeking behavior through looking for an audience on social media starting at a very young age. Finally, a large, nationwide survey uncovered that children who watch more TV and use social media tend to hold more individualistic value systems, defined by fame, financial success, status and image, while children who perform more traditional activities that involve social interaction, cooperation, and helping behaviors hold collectivistic values.

Cultural products such as television and movies are a constant source of information about what is desirable and confers status, while the public nature of today's social media promote social comparison, making salient group value priorities (Manago et al., 2008). These technologies, which permeate the informal learning landscape, are also rapidly entering classrooms across America (Cuban, 2001; Rotella, 2013). Social

media, through satisfying developmental needs for popularity and belonging, may be shaping preteen's identities and influencing their developing value systems (Greenwood, Long, & Cin, 2013). Given their position as the dominant cultural product in today's informal learning environment, the evidence of a relationship between media and an individualistic value system must be further explored.

The last study in the dissertation looked at whether a manner that adolescents interact socially in the 21st century, through the use of mobile technology, affects their ability to learn from the social environment. We found that more opportunities for in-person communication, due to the absence of all screens, led to an improved understanding of non-verbal emotional cues. The implication is that the increasing reliance on digital social interactions may hinder exposure to the face-to-face experiences necessary to master important emotion understanding.

Taken together, these studies indicate that 21st century media are connected to self, rather than community, and that they take away time from in-person social interaction, an essential feature of social learning. Nevertheless, humans are social animals, and the technology has evolved to create more and more opportunities to use media for social interaction. For example, online social networks offer an opportunity to converse with friends in the virtual world while society affords less opportunity for small town community contact. As such, the opportunities for media to contribute to adaptive development exist and these can and should be emphasized. At the same time, as technology becomes more integral to day to day living, the importance of in-person, face-to-face communication, critical for healthy social development, must be underscored and facilitated by society. Indeed, our finding in the nationwide survey, that collectivistic

value systems, which promote community and family, are related to non-mediated, mainly social activities highlights this importance. Even stronger evidence was provided by our camp study; it showed that participating in an overnight nature camp for five days in which all interaction was in person significantly improved preteens' skill in reading the emotions of other people.

As the technology continues to change and adapt to human needs, research at the intersection of developmental psychology and media effects can provide insight into ways to ensure that children, and those charged with their healthy development, understand both the costs and benefits of living a digital life.

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