Children Understimate how much Others Read: A Confirmation Using Chinese 7th Graders in Hefei, China

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Introduction

There is a common view that "kids these days" don't read as much as they used to. This view is so firmly held that discussion nearly always focusses on why children don't read, assuming that the decline in reading is real. For example, in a Good Reads blog, Lynette Sofras asked "*Why don't children read anymore*?"[1] Contributors gave a number of reasons such as poor quality of literature written for young people, lack of discipline, the Internet, and force feeding classics to children.

We hypothesize that one reason for this belief is because reading usually is private, we rarely see other people doing it. Evidence supporting this hypothesis comes from three sets of data, both showing that middle school children think they read more than their friends and their classmates do. One analysis is based on data from a previous study of a sample of children in the US. The second analysis is based on data from a sample of children in Hefei, China. The third is from Australia, from studies recently published that came to our attention after our analysis was complete.

Children themselves eagerly provide reasons for their own failure to read more. Teacher Ronald Maggiano asked his students "about the possible reasons why kids do not read"[2] Among the reasons given in the *The Classroom Post*, by Ronald Maggiano, are: not enough time or energy, demands of other activities (e.g. sports), appeal of the internet and video games, boring assigned reading ("One student said that she does not read because English class has butchered the fun in reading"), and parents don't "push their children to read." Finally, there was the "coolness factor" (*"They think it makes them* nerds*"* said one girl. Another student wrote, "Someone put in their minds when they were little that reading was not cool and boring*"*). The possbility that "kids these days" are reading just as much as children ever did is not even considered.

Why is this view so firmly held? One obvious reason is studies that purportedly demonstrate that the decline is real, especially the National Endowment for the Arts "To Read or Not to Read" (Iyengar and Ball, 2007), which resulted in a flurry of articles and reports in the media declaring that there is a "remarkable decline" in reading (National Public Radio, November 19, 2007), and "The young turn their back on books" (Dallas Morning News, November 20, 2007).

Contrary data and counter-arguments are not "news." When the National Endowment for the Humanities published "Reading on the Rise" one year later (National Endowment for the Arts, 2008), there was little comment in the media. A contrary analysis of the 2007 report (Krashen, 2008, 2011), as well as data showing that readers are clearly not "nerds" (Schatz, Panko, Pierce, and Krashen, 2010a) have not been widely reported.

Another plausible reason for the view that reading is on a decline is that reading is private: We are aware when we are doing it, but we don't often see others doing it, and we therefore underestimate how much others read.

Previous Research

Evidence supporting the second explanation for the belief in the decline in reading was reported by Schatz, Panko, Pierce, and Krashen (2010b). Fourth and fifth graders in different parts of the United States (Texas, California and Colorado) were asked how much they read, how much they thought their friends read, and how much they thought their classmates read. Table1 presents this data, included here in detail because of the remarkable similarity of the classes with each other as well as the remarkable similarity to our current results, described later.

Table 1: Report of Reading – USA sample

Class 1: grade 4. n = 91	a lot	kind of	not very much
I like to read	54 (59%)	34 (37%)	3 (3%)
My friends like to read	49 (54%)	38 (42%)	4 (4%)
Most of my class likes to read	46 (50%)	35 (39%)	10 (11%)

Self vs friends:
$\chi^2_{Yates} = .54$, p = .23, d = .15
Self vs. classmates: $\chi 2 = 1.42$, p =.11, d = .25
("kind of" and "not very much" combined for χ^2_{Yates} analyses)

Class 2: grade 5, n = 100	a lot	kind of	not very much
I like to read	43 (43%)	50 (50%)	7 (7%)
My friends like to read	35 (35%)	60 (60%)	5 (5%)
Most of my class likes to read	32 (32%)	50 (50%)	18 (18%)

Self vs. friends: $\chi^2_{Yates} = 1.35$, p .13, d = .23
Self vs. classmates: $\chi^2_{Yates} = 2.58$, p = .054, d = .33

Class 3: grade 4, n = 96	a lot	kind of	not very much
I like to read	40 (42%)	49 (51%	7 (7%)
My friends like to read	30 (31%)	57 (59%)	9 (10%)
Most of my class likes to read	37 (38%)	46 (48%)	13 (14%)

Self vs. friends: $\chi^2_{Yates} = 2.25$. p = .07; d = .31;
Self vs. classmates: $\chi^2_{Yates} = .2$, p = .33; d = .09

Class 4: grade 5, n = 104	a lot	kind of	not very much
I like to read	40 (39%)	49 (47%)	15 (14%)
My friends like to read	25 (24%)	64 (62%)	15 (14%)
Most of my class likes to read	22 (21%)	64 (62%)	18 (17%)

Self vs. friends: $\chi^2_{Yates} = 5.03$, p = .012; d = .45;
Self vs. classmates: $\chi^2_{Yates} = 7.44$, p = .003, d = .56
From: Schatz, Panko, Pierce, and Krashen (2010b).

Examining the first two rows of each table, we see that in each group children said that they felt that they read more than their friends did, e.g., in Table 1, 59% of the children said they liked to read a lot, but 54% said that their friends read a lot. The difference was largest in class four (39% saying they liked to read a lot, compared to 24% saying their friends liked to read a lot). The same pattern appears in all four classes consistently.

Subjects also reported that they read more than their classmates. In Table 1, for example, as noted earlier, 59% of the students said they liked to read a lot, compared with 32% saying their classmates liked to read a lot. Again, the same pattern appears in all four classes.

The China (Hefei) Study

To investigate the possible universality of this phenomenon, a very different group was used. Seventh graders in seven different schools in a middle class area in Hefei, China were asked about their reading habits in their first language, Mandarin and the findings are presented in Table 2. All children filled out questionnaires that included these questions (translated from Mandarin), which are nearly identical to those asked in Schatz et. al. (2010b):

- I like to read a) a lot b) kind of c) not at all
- My friends like reading a) a lot b) kind of c) not at all

Most of the students in my class like to read a) a lot b) kind of c) not at all

The Hefei results are remarkably similar to the data from the United States: In every comparison except one, subjects said they read more than their friends did and in every case they said they read more than their classmates did.

Data from Australia

After our study was completed, we discovered we might be able to confirm (or disconfirm) our findings using data from other studies. Merga (2014a, 2014b) conducted research with teenagers, aged 13 to 16, in Australia, on attitudes toward recreational reading and the impact of friends and peer group on the acceptability of reading.

A flaw in our study is that we did not do a separate analysis of girls and boys. Merga (2014a, 2014b) provided data that made it possible to do this analysis. As usually found in studies of this kind, girls reported more interest in reading than boys.

Merga's female subjects followed the same pattern as our American and Chinese subjects did, feeling that they read more than their close friends and their classmates, and the effect was larger for classmates (Table 3).

The boys agreed with the pattern we found in that they thought they read more than their friends did. They also thought they read more than their classmates, but not by much. In fact, the difference between how much the boys said they read and their classmates was not statistically significant, just failing to reach the .10 level, one tail, and the effect size was very small.

Comparison of Friends and Classmates

The use of effect sizes allows us to assign a number to the size of differences among groups (Wolf, 1986). Effect sizes are usually calculated by subtracting the mean of one group from the mean of the other, all divided by the pooled standard deviation. In this study, effect sizes were calculated from the ÷2 tests. Table 4 presents effect sizes for self-reports versus opinions about friends and classmates for all three samples.

Table 2: A Comparison of Self-reports and Opinions about Friends' Reading Habits - China (Hefei) Sample

Hefei Class		a lot	kind of	not at all	χ^2_{Yates} and P Values
class 1, n = 18	I like to read	16 (89%)	2 (11%)	0	Self vs. friends: χ^2_{Yates} = 6.13, p = .006, d = 1.44; Self vs. classmates: χ^2_{Yates} = 4.71, p = .015 d = 1.19
	My friends like reading	8 (44%)	10 (56%)	0	
	Most of my class likes to read	9 (50%)	8 (44%)	1 (6%)	
class 2, n = 17	I like to read	10 (59%)	7 (41%)	0	Self vs. friends: χ^2_{Yates} = 7.37. p = .0033; d = 1.75; Self vs. classmates: χ^2_{Yates} = 4.48, p = .017 d = 1.2
	My friends like reading	2 (6%)	15 (88%)	2 (6%)	
	Most of my class likes to read	3 (18%)	13 (17%)	1 (6%)	
class 3, n = 20	I like to read	15 (75%)	5 (25%)	0	Self vs. friends: χ^2_{Yates} = 4.95, p = .013, d = 1.15; Self vs classmates: χ^2_{Yates} = 12.2, p = .00023, d = 2.5`
	My friends like reading	7 (35%)	13(55%)	0	
	Most of my class likes to read	3(15%)	16 (80%)	1 (5%)	
class 4, n = 19	I like to read	10 (53%)	1 (74%)	0	self vs. friends: Fisher exact test : p = .005, d = 1.43; Self vs. classmates: Fisher exact test = .00009, d = 3.1
	My friends like reading	7 (37%)	12 (63%)	0	
	Most of my class likes to read	3 (16%)	14 (74%)	2 (10%)	
class 5, n = 16	I like to read	9 (56%)	6 (38%)	1 (6%)	self vs . .friends: χ^2_{Yates} = 0, d = 0; Self vs. classmates: χ^2_{Yates} = 3.33, p = .034, d = 1.03
	My friends like reading	8 (50%)	7 (44%)	1 (6%)	
	Most of my class likes to read	3 (19%)	12 (75%)	1 (6%)	
class 6, n = 23	I like to read	14 (61%)	8 (35%)	1 (4%)	self vs. friends: χ^2_{Yates} = 4.33 p = .019, d = .96; Self vs. classmates: χ^2_{Yates} = 9.33, p = .0012, d= 1.65
	My friends like reading	6 (26%)	15 (65%)	2 (9%)	
	Most of my class likes to read	3 (13%).	18 (78%)	2 (9%)	
class 7, n = 19	I like to read	11 (58%)	6 (32%)	2 (10%)	self vs. friends: χ^2_{Yates} = 1.7, p = .10, d = .63; Self vs. classmates: χ^2_{Yates} = 5.54, p = .009, d = 1.29
	My friends like reading	6 (32%)	10 (53%)	3 (16%)	
	Most of my class likes to read	3 (16%)	12 (63%)	4 (21%)	

"kind of" and "not at all" categories combined in Fisher Exact tests. All p-values one-tail.

Table 3: Responses of Girls and Boys to the Question : *Do you like to read in your spare time*?

Gender		Positive	Neutral	Negative	χ^2_{Yates} & P Values
Girls n=276	self	164 (59%)	62 (22%)	50 (18%)	self vs. close friends: χ^2_{Yates} = 27.89, p < .0001; d = .67
	close friends	102 (37%)	77 (28%)	97 (35%)	self vs classmates; χ^2_{Yates} = 79.60, p < .0001; d = 1.27
	classmates	61 (22%)	127 (46%)	88 (32%)	
Boys n=242	self	86 (35%)	63 (26%)	93 (242)%	self vs. close friends: χ^2_{Yates} = 23.83, p < .0001; d = .66
	close friends	39 (16%)	76 (31%)	127 (52%)	self vs. classmates: χ^2_{Yates} = 1.025, p = .16, d = .13
	classmates	56 (23%)	94 (39%)	92 (38%)	

Table 4: Comparison of Effect Sizes for Self –report versus Opinions about Friends and Classmates for the three Samples

Hefei			***USA***			***Australia***		
Class	vs. friends	vs. classmates	Class	vs. friends	vs. classmates	Gender	vs. friends	vs. classmates
1	1.44	1.19	1	0.15	0.25	Girls	0.67	1.27
2	1.75	1.2	2	0.23	0.33	Boys	0.66	0.13
3	1.15	2.5	3	0.31	0.09	*vs. classmates larger than vs.*		
4	1.43	3.1	4	0.45	0.56			
5	0	1.03	*vs. classmates larger than vs. friends: 3/4*					
6	0.96	1.65						
7	0.63	1.29						
vs. classmates larger than vs. friends: 5/7								

For our original sample (USA), the effect sizes were larger for the perceptions of classmates' reading than for friends' reading in three out of four ccomparisons. For our Hefei sample, this was true in five out of seven ccomparisons, and in the Australian sample (Merga, 2014a, 2014b), it was true only of girls. In total, in 9 out of 13 cases, the effect sizes were larger for perceptions of classmates' reading than for friends' reading. This result, if it proves to be stable, would provide more evidence that we underestimate the reading habits of those we do not observe directly. It is plausible that children have more direct knowledge of their friends' reading habits than they do of their classmates' reading habits.

Discussion

Children consistently reported that they read more than their friends and classmates do, and the effect tended to be larger for classmates' reading than from friends' reading. Children in the US, China, and Australia think others read less than they do, which must be an illusion since subjects' classmates in all of the studies were also subjects in the study. We have demonstrated here that this effect occurs with children who speak different languages and belong to somewhat different cultures. We suspect that the effect will hold for adult readers as well as for children.

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Endnotes

[1]http://www.goodreads.com/author_blog_posts/2892089-why-don-t-our-÷2ldren-read-anymore-lyn-sofras-at-bts

[2] http://www.theclassroompost.com/2009/11/why-kids-dont-readhtm

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