AMERICAN PSYCHOLOGICAL ASSOCIATION

2012 ANNUAL CONVENTION

AUGUST 2–5, 2012 • ORLANDO, FLORIDA

A Life without Lies: Can Living More Honestly Improve Health?

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"Science of Honesty" project 2011-2013 (Kelly, Wang, & Gondoli)

- Made possible through the support of a grant from the John Templeton Foundation.

- Today's presentation is on the results from Year 1
  - Years 2 and 3 will address additional questions with new samples

Today's Agenda

- Background on lying research
- Results from the 10-week no-lie experiment (Kelly & Wang, 2012)
- Implications of these results for health

- The Bible:
  - "God is true, but every man a liar" (Romans 3:4)
  - "Neither shall you deal falsely nor lie to one another" (Leviticus 19:11)
- "Some level of truthfulness has always been seen as essential to human society, no matter how deficient the observance of other moral principles" (Bok, *Lying*, 1989, p. 18)
  - Honesty is indeed rated as one of the most positive human traits (e.g., Schlenker et al., 2001).

…and healthy

- ## The Bible:
  - – "Confess your faults to one another that ye may be healed" (James 5:16)
- ## Freud's (1904) *Fundamental Rule of Psychoanalysis*
  - – Complete honesty required from patients for their cure

Frequency of Lying

- It is estimated that Americans tell 1-2 lies per day, or 11 lies per week.
  - Obtained from diary studies (Kashy & DePaulo, 1996)
  - 1000 Americans reported average of 1.6 lies in 24-hours (Serota, Levine, & Bolster, 2010).
- Studies of "both college students and adults from the community have shown that lies are a fact of everyday life" (DePaulo et al., 2004, p. 147).

A paradox.

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- Despite the high frequency of lying:
  - Americans generally expect relational partners and acquaintances to be honest (see Grice, 1975; Kraut & Higgins, 1984) and get upset when they discover a lie (Scott, 2010)
  - Also see themselves as honest: "People behave dishonestly enough to profit but honestly enough to delude themselves of their own integrity" (Mazar et al., 2008, p. 633).

A good (secular) reason not to lie: Building reliable relationships

- "Trust in some degree of veracity functions as a *foundation* of relations among human beings" (Bok, 1989, p. 31)
  - Even trivial (i.e., white) lies told for "our own good" (p. 21) can be problematic in relationships because the liar can't be trusted to stick to just those lies.

What is a lie?

- "An assertion, the content of which the speaker believes to be false, which is made with the intention to deceive the hearer with respect to that content" (Williams, 2002, p. 96).
  - Contrasts with Gini Scott's (2010) broader definition that also includes any concealments of relevant information or making promises without the intent to keep them.

Lying versus secrecy

- One who misleads only through secrecy is less reprehensible than a liar, because with direct questions, that person can still be relied on to state the truth (Kelly, 2002)
  - Secrecy was seen as less immoral than lying by a sample of undergraduates (Gesell, 1999)
  - Lying (vs secrecy) is more likely to violate expectations for honesty in relationships.

Views of those who violated expectations of honesty (Rycyna, Champion, & Kelly, 2009)

- A female confederate responded to a participant's question about her weight with a lie, true, or technically true statement; or she refused to answer the question.

- The confederates who lied or refused to answer (vs told the truth or a "technical truth"):
  - violated expectations for an honest answer more
  - and were less well liked, seen as less moral, and less likely to be recommended as a dating partner.

Views of those who violated expectations of honesty (Rycyna et al., 2009) (cont.)

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- The confederates who told technical truths were seen just as favorably as those who told the exact truth.

- Statistical tests supported the idea that violating expectations for honesty explained why the confederates who lied or refused to answer were seen less favorably than those who told the truth or a technical truth.

No previous studies have induced a dropping of lies

- Although the previous research indicates that lying is common,
  - it does NOT mean that everyone is dishonest: Humble, modest people tend to be honest and straightforward (Lee & Ashton, 2004).
  - nor does it mean that people cannot stop lying!

Key questions addressed by our 10-week no-lie experiment (Kelly & Wang, 2012

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- Can people stop lying?
- Can dropping their everyday lies actually cause better health?
- And if so, how can such an improvement be explained?

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- On one hand, health might be hurt by not lying. After all, people lie to (Scott, 2010)
  - gain a sense of independence from the control of others
  - deny a source of unpleasantness
  - seem more admirable, sought after, or accomplished
- Perhaps not being able build themselves or others up through lies could compromise the immune system of the now-honest participants!

Will dropping lies help or hurt health? (cont.)

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- On the other hand, health might be helped by not lying.
  - Communicating more straightforwardly and not violating others' expectations for honesty could perhaps cause relationships to improve, thus favorably impacting health.
  - After all, previous research has established a clear link between good relationships and good health (see Umberson & Montez, 2010)

Participants in 10-week no-lie experiment (Kelly & Wang, 2012)

- 110 adult community members (35%) and college students (65%). Note that only one person dropped out!
  - Ranged from 18 to 71 years old, with average age of 31.
  - 63% percent were women
  - 87% were White, 4% were Black, 4% were Hispanic, 3% Asian, and 2% were of another race.
  - Annual family income ranged from those making less than $25,000 to those making over $160,000

Design of the 10-week no-lie experiment (Kelly & Wang, 2012)

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- Participants randomly assigned to
  - Control group
  - No-lie group
- All participants completed weekly polygraph tests and battery of health measures. They were told:
  - "For some of these health questions, you will be hooked up to a polygraph machine to encourage you to answer as honestly as possible."

The no-lie manipulation

- Control group was told
  - "Each week while you are hooked up to the polygraph test, I will be asking you to tell me how many white lies and major lies you told that week."

- No-lie group was told that PLUS asked to
  - "refrain from telling any lies for any reason to anyone. You may omit truths, refuse to answer questions, and keep secrets, but you cannot say anything that you know to be false. Do you agree to tell no falsehoods for the duration of this study?"

- **Self-reported health**
  - The PILL (Pennebaker, 1982):
    - common physical complaints (e.g., runny nose, back pains, diarrhea)
  - The Brief Symptom Inventory (BSI, Derogatis, 1992): psychological symptoms
- **Manipulation checks using polygraph tests (asked of both the no-lie and control groups)**
 - White lies
  - Major lies

Measures (given across the weeks) (cont.)

- "How honest are you?" on 1 to 7 scale:

  1= "completely honest, never tell any lies"; 4= "tell the same # of lies as most people"; 7="tell many more lies than most people"

- Relationships questions: "In the past week, _____as compared with 2 weeks ago?" (7-point scales, from much worse to much better)

  to what extent have your closest relationships changed; how smoothly have your social interactions in general gone

Results on manipulation checks:
Can people drop their lies? Yes.

white lie (week)

time

cond — 1 — 2
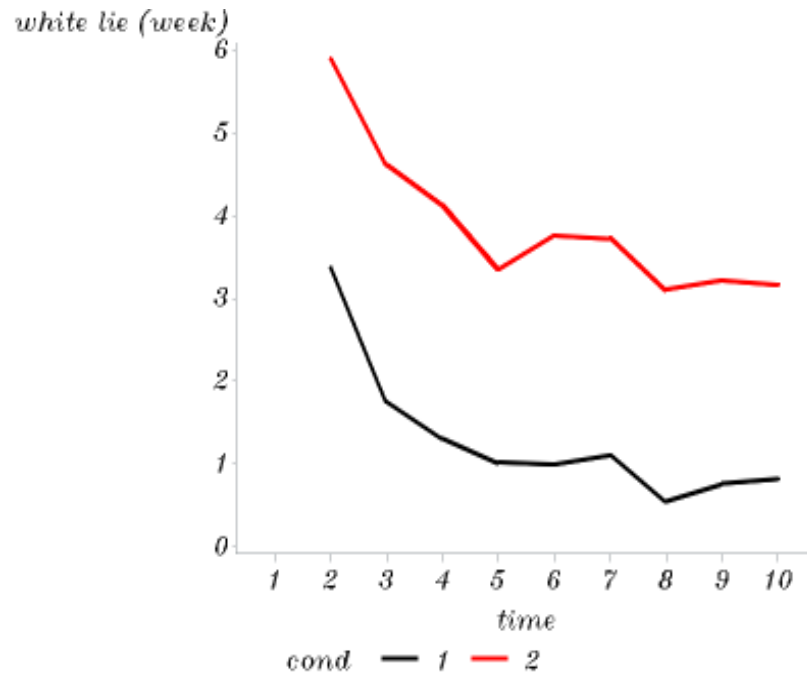
Week	No lie group	Control group	p value	Effect size
2	3.37	5.89	0.0173	0.47
3	1.75	4.61	0.0011	0.66
4	1.31	4.13	0.0002	0.74
5	1.00	3.42	<.0001	0.93
6	1.00	3.76	<.0001	1.09
7	1.00	3.73	<.0001	0.94
8	0.55	3.11	<.0001	1.25
9	0.76	3.22	<.0001	1.10
10	0.83	3.17	<.0001	1.21

The no-lie group reported significantly fewer white lies across all weeks (Weeks 2 to 10) than the control group.

Results on manipulation checks: Can people drop their lies? (cont.)
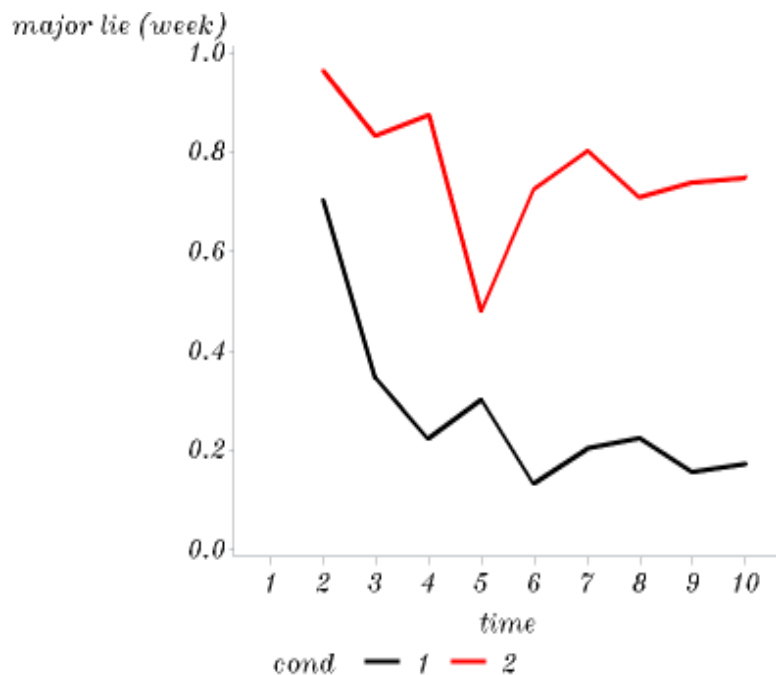
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major lie (week)

Week	No lie group	Control group	p value	Effect Size
2	0.70	0.96	0.3636	0.18
3	0.35	0.83	0.0518	0.38
4	0.22	0.88	0.0023	0.60
5	0.30	0.49	0.2745	0.20
6	0.13	0.73	0.0030	0.59
7	0.17	0.80	0.0007	0.62
8	0.22	0.71	0.0091	0.52
9	0.16	0.74	0.0020	0.65
10	0.17	0.75	0.0011	0.67

The no-lie group reported significantly fewer major lies than the control group across most time points.

- ## How honest are you compared to other people?

  – By Week 5, the no-lie (vs control) group came to see themselves as significantly more honest

Week	No lie group	Control group	p value	Effect Size
1	4.98	4.84	0.4416	0.15
2	5.07	4.8	0.1876	0.26
3	5.06	4.69	0.1299	0.30
4	4.79	4.59	0.397	0.16
5	5.3	4.64	0.0067	0.54
6	5.25	4.53	0.0052	0.55
7	5.37	4.61	0.0008	0.66
8	5.36	4.39	0.0002	0.77
9	5.38	4.48	0.0005	0.72
10	5.23	4.51	0.0032	0.60

- Across weeks, when participants from both groups told fewer major and white lies, their physical (p = .02 and p < .0001) and mental health (p = .0002 and p < .0001) were significantly better that week.

Results on health measures (cont.)

- The link between white lies and health was significantly stronger for participants in the no-lie group.

By dropping 3 white lies	Drop in mental health complaints	Drop in physical health complaints
No-lie group	4.3	2.7
Control group	2	1.2
	$p = .0038$	$p = .05$

- In weeks when participants told fewer lies, their
  - close personal relationships significantly improved (white lies: $p < .0001$; major lies: $p < .0001$)
- Improvement in relationships accounted for a statistically significant portion of the improvement in health that was associated with less lying.
  - Supports the idea that reducing major and white lies can improve relationships, and thus improve health.

After 10 weeks: "How did you manage to lie less frequently?"

- Examples of what participants wrote:
  - realized that they could simply tell the truth about their daily accomplishments rather than exaggerate
  - stopped making false excuses for why they were late or had failed to complete tasks
  - added qualifying statements to make the preceding statements more truthful
  - responded to a troubling question with another question, changed the topic, or were vague
- Note that telling people brutal truths was not the alternative to lying!

Discussion

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- A reduction in lies across the 10 weeks was associated with better health in those same weeks.

- Also, inducing participants to lie less
  – caused them to see themselves as more honest
  – strengthened the link between fewer lies and better health. Suggests that deliberate efforts to stop lying can ramp up the health benefits.

Discussion (cont.)

- Our findings support the notion that lying less can cause better health through improving relationships.

- We suggest that
  - not violating others' expectations for honesty is likely to build trust, which may be key to good health through building good relationships.
  - not allowing oneself to lie might change behaviors that would have to be lied about later, too!

Conclusion

- Our 10-week experiment showed not only that participants could purposefully and dramatically reduce their lies, but also that this reduction was associated with significantly improved health.

- Perhaps someday parents will tell their kids that for good health:
  - Eat your fruits and vegetables
  - Exercise
  - Lie as little as possible

Our thanks to

- The John Templeton Foundation
- Research team: Brandon Arlington, Ben Eichler, Daniel Harper, Caroline Kuse, Yulie Lee, Maria McLeod, Mara Norton-Baker, Ragan Todd
- Mercedes Kelly and Eric Fulton

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