Groups Can Detect White Lies

Nadav Klein, University of Chicago, USA
Nicholas Epley, University of Chicago, USA

Interventions to improve lie detection typically focus on improving individual judgment, a costly and generally ineffective endeavor. In contrast, we tested whether groups can improve lie detection. In three experiments, we find that groups are consistently better than individuals at detecting white lies—the most challenging lies to detect accurately.

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Nadav Klein, University of Chicago, USA
Nicholas Epley, University of Chicago, USA

EXTENDED ABSTRACT
Lies are both common and potentially very costly if undetected (DePaulo et al., 1996). Many economic transactions involve asymmetric information between buyers and sellers, in which one party must the other is making accurate representations. Consumers increasingly rely on user-generated web content when reading product reviews to make more informed purchases. The legal system relies on judges and juries to detect lies from defendants. These examples illustrate that the ability to detect lies can forestall significant economic and psychological costs to consumers and society.

However, detecting deception is difficult. Accuracy rates in experiments are only slightly above chance, even among trained professionals (Ekman & O’Sullivan, 1991; Mattson, Allen, Ryan, & Miller, 2000; Vrij, 2000). This meager accuracy rate appears driven by a modest ability to detect truths rather than lies. In one meta-analysis that includes 206 experiments, individuals accurately identified 61% of truths, but only 47% of lies (Bond & DePaulo, 2006). These results have led researchers to develop costly training programs targeting individual lie detectors to increase accuracy (e.g., Bull, 2004; Frank & Feeley, 2003; Shaw, Porter, & ten Brinke, 2013). In this research we test a different strategy: asking individuals to detect lies as a group.

There are three reasons that groups might detect deception better than individuals. First, because individuals have some skill in distinguishing truths from lies, statistically aggregating individual judgments could increase accuracy (a “wisdom of crowds” effect; Hastie & Kameda, 2005; Larrick, Mannes, & Soll, 2011). If individuals detect truths better than lies, aggregating individual judgments would increase truth detection more than lie detection.

Second, individuals show a reliable “truth bias,” assuming others are being truthful unless given cause for suspicion (Bond & DePaulo, 2006). If groups are less trusting than individuals (Wildschut et al., 2003), then they could detect lies more frequently because they guess that someone is lying more often.

Finally, group deliberation could increase accuracy by providing useful information that individuals lack otherwise (Bonner, Bauman, & Dalal, 2002; Franz & Larson, 2002; Stewart & Stasser, 1995). This predicts that group discussion alters how individuals evaluate a given statement to increase accuracy. Because individuals already possess some accuracy detecting truths, unique improvement from group discussion would increase accuracy detecting lies.

In Experiment 1a (N=180), participants watched ten different statements (from different people) and guessed whether each was a truth or lie, either individually or in a group of three. This tested whether groups were more accurate than individuals in detecting truths, lies, or overall than individuals.

Experiment 1b was a replication of 1a, using different stimuli and nearly double the sample size (N=351).

The results of Experiments 1a revealed that real groups were more accurate (M=61.7%, SD=18.2%) than individuals (M=53.6%, SD=16.0%), t(118)=2.32, p=.02, d=.47. The group advantage came primarily from detecting lies more accurately than individuals, t(118)=2.66, p<.01, d=.57. There was no group advantage when detecting truths, t(118)=.86, p=.39, d=.18.

The group advantage in lie detection, but not truth detection, could come from a response bias if groups are more likely to guess that someone is lying. However, there was no significant difference in the frequency of guessing ‘truth’ between groups (M=50.3%, SD=11.0%) and individuals (M=53.6%, SD=14.4%), t(118)=1.12, p=.26, d=.26. In addition, a linear regression predicting overall accuracy from condition (individual versus group), controlling for the propensity to guess ‘truth,’ still yielded a significant effect of condition, β=.08, t=2.32, p=.02. Groups were not better lie detectors because they were more likely to guess that someone was lying.

We further assessed whether the statistical aggregation of individual judgments can increase accuracy. We therefore statistically aggregated judgments of participants in the individual conditions in Experiment 1a. Statistical aggregation did not improve accuracy.

Experiment 1b fully replicated the results of Experiment 1a. In Experiment 2 we sought to understand the mechanism responsible for improvement in lie detection gained through group discussion. Group discussion could increase lie detection skill for two reasons. First, group discussion could identify the most accurate individual within a group, increasing accuracy through a sorting mechanism. Second, group discussion may elicit conjectures and observations about the target that provide the information needed to make an accurate assessment, increasing accuracy through synergistic mechanism by exposing individuals to each other’s preliminary points of view.

The critical difference between sorting and synergy is that individual judgments are formed before discussion on the sorting account and discussion then identifies the best judge, whereas individual judgments are formed during discussion on the synergy account and discussion itself creates a more accurate judgment.

We tested between these mechanisms in Experiment 2 by having participants make judgments both as a group and individually for each target, manipulating the order in which they did so. The sorting mechanism predicts that making individual judgments first will not affect the subsequent group advantage in lie detection, whereas the synergy mechanism predicts that forming an individual judgment first will disable the group advantage because accuracy comes from the additional information acquired while forming a group opinion.

The results revealed a clear order effects, whereby the group advantage in lie detection was erased when individual judgments were taken before group judgments, supporting the synergy account and arguing against the sorting account.

Together, these experiments reveal that group discussion can improve accuracy in lie detection through synergies created during discussion.

REFERENCES


