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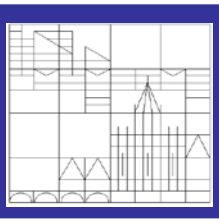

I am Sorry ☺ -
Honest and Fake Apologies

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Working Paper Series
2013-18

:

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This version: April 2013

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Abstract

Apologies have a positive effect on forgiveness. Nevertheless not all people apologize after an offense. In a laboratory experiment we test whether lying aversion can explain this behavior by comparing honest and fake apologies. First, we show that even an honest apology comes along with a cost for some people. Second, costs for fake apologies are even higher. Fake apologies are less likely than honest apologies and consist of different wording and content. Receivers understand apologies as a signal for honesty. Following, forgiveness after an honest apology is more likely than after a fake apology.

JEL Classification: C91, D82, D83.

Keywords: Apology, Lying, Intentions, Experiment.

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I would like to thank Urs Fischbacher and the participants at a seminar at the University of Bamberg. Support from the Emerging Field Initiative (EFI) at the University of Erlangen-Nürnberg is gratefully acknowledged.

1. Introduction

A wide range of behavioral economic[2], psychological[3] and neuroeconomic[4] studies shows that apologies can help to avoid punishment and promote forgiveness. Several theories have been developed that model the impact of apologies.[5] Fischbacher and Utikal (2010) suggest that apologies work because people are lying averse[6], and care for others' intentions[7]. Apologizing although not feeling sorry is a lie. Assuming people have a preference for truth-telling they will therefore abstain from apologizing after an intentional offense. Thus, apologies become a signal of having committed an unintentional offense. If people care about others' intentions forgiveness will therefore be more likely after an apology.

This paper verifies this reasoning with a laboratory experiment. Can we trust in apologies? Is it really the truly sorry people who apologize or are apologies just cheap talk? If apologies are honest signals, are receivers of apologies able to understand? Can they distinguish between honest and fake apologies?

The novelty of our experimental design is that it allows distinguishing between honest and intentional offenses, and honest and fake apologies. In a version of a dictator game there are two possible reasons for an unequal offer: intent or inability. We can control for the intention behind an unequal offer. The receiver, however, is not aware of the motive. The dictator can clarify his motives with a message. Following, the receiver can punish the dictator.

We find that apologies are no cheap talk but signals of honest failures. Honest and fake apologies differ with respect to frequencies and contents. Since not all players after honest failures apologize, we can show that even honest apologies bear a cost. The cost is even higher for fake apologies due to lying costs. Receivers of apologies understand the signal. Therefore, forgiveness is more likely after an apology. Also, forgiveness after an honest apology is more likely than after a fake apology.

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[2] See for example Schniter et al. (forthcoming), Fischbacher and Utikal (2010), Abeler et al. (2010), Bottom et al. (2002), Schweitzer et al. (2006).

[3] See for example Watanabe and Ohtsubo (2012), Takaku et al. (2001), Girard et al. (2002), Wada (1998), Scher and Darley (1997), Exline et al. (2007), McCullough et al. (1997), McCullough et al. (1998), Schmitt et al. (2004), Ohbuchi et al. (1989), Ohtsubo and Watanabe (2009), Struthers et al. (2008), Skarlicki et al. (2004).

[4] See Strang et al. (in progress).

[5] See Fischbacher and Utikal (2010), Ho (2012), Ho and Liu (2011), Ohtsubo and Watanabe (2009), Tavuchis (1991).

[6] The aversion to lying is well documented by Gneezy (2005), Cai and Wang (2006), Sutter (2009), Rode (2010), Charness and Dufwenberg (2006), Lundquist et al. (2009), Sánchez-Pagés and Vorsatz (2009), Sánchez-Pagés and Vorsatz (2007), Kartik (2009), Hurkens and Kartik (2009), Fischbacher and Föllmi-Heusi (forthcoming), Utikal and Fischbacher (2013).

[7] For evidence on the importance of intentions see Blount (1995), Charness and Levine (2007), Brandts and Sola (2001), Falk et al. (2003), and Falk et al. (2008).

The rest of this paper is organized as follows. Section 2 introduces the experimental design. Section 3 presents the results and Section 4 concludes.

2. Experimental Design

The design is based on Fischbacher and Utikal (2010). In this two-players game player A answers a multiple choice question with four possible answers. Only one of these answers is correct. For the correct answer to this so called team question en equal split is implements: both players receive 100 points. For a wrong answer player B receives 50 points. Player A's payoff in this case depends on the following decision of player B. Player B can choose whether to forgive player A. If player B forgives, player A receives 140 points. In case player B does not forgive, player A receives 110 points (see Figure 1 for an overview). Thus, player A has a clear incentive to answer the question wrongly. Before player B's decision whether to forgive, player A has the option to send a message to player B. This message option can of course be used for an apology.

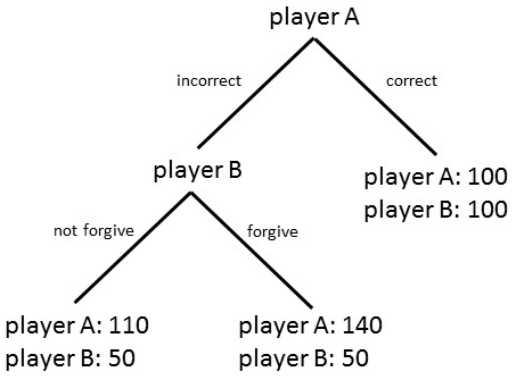

Figure 1: Structure of the game

There are obviously two reasons for giving a wrong answer: Either player A did not know the answer or he answered wrongly on purpose. This experiment aims at understanding the differences between honest and intentional failures. To control for this distinction, player A receives the multiplicity choice question twice. Simultaneously with the team question player A receives the same question as solo question. For a correct answer to the solo question he receives 10 points. For a wrong answer he receives 0 points. Player A does not have to give the same answer to the solo and the team question. We can therefore distinguish between honest and intentional failures in the team question. Also player B receives the solo question and earns 10 points for a correct answer. We therefore provide a measure for the question's difficulty and an opportunity for the players to form an individual view on the difficulty of their partners' questions.

The whole procedure was common knowledge. We conducted 5 sessions between November and December 2012. All sessions were conducted at the LERN (University of Erlangen-Nuremberg) with a total number of 152 participants. Before the experiment started, participants were randomly assigned to their role as player A or B. Participants kept their role throughout the game in order to avoid copying the content of others' messages. The experiment lasted 10 rounds. We used a perfect stranger matching in order to avoid reputational effects. Participants received the income of all periods. One point translated into 0.01 euros. The experiment took about 60 minutes, average income of participants was 9.83 euros (12.93$) plus a show-up fee of 2 euros (2.63$). The games were programmed with z-Tree (Fischbacher (2007)). We recruited participants using the online recruiting system ORSEE (Greiner (2004)). We used the same selection of questions as Falk et al (2012). Each subject sat at a randomly assigned PC terminal and was given a copy of instructions.[8] A set of control questions was provided to ensure the understanding of the game. The experiment did not start until all subjects had answered all questions correctly.

3. Results

Since we are interested in behavior after offenses, this section focuses on the situation where player A answered the team question wrongly and the unequal split is implemented. In this case player A could send a message to player B and player B decided whether to forgive player A. 499 observations (65%) cover this situation. See Table 1 for more details.

		Solo Question		
		Wrong	**Correct**	
Team Question	**Wrong**	**0.12**	**0.53**	**0.65**
	Correct	**0.03**	**0.32**	**0.35**
		0.15	**0.85**	**1.00**

Table 1: Player A`s performance in the questions.

We distinguish between two kinds of failures: honest and intentional failures. An honest failure is the situation where player A answered the team question as well as the solo question incorrectly (12% of observations). In this case, player A obviously did not know the answer. An intentional failure describes the situation where the answer to the team question is incorrect, but player A answered the solo question correctly (53% of observations).[9]

[8] A translation of the instructions for player A can be found in the appendix.

[9] Note that both situations also include players who apply the following strategy: pick answers to the team question and the solo question randomly and independently. As Table 1 shows, a wrong solo question combined

Following, we distinguish between honest and fake apologies. An honest apology is an apology after an honest failure. A fake apology is an apology after an intentional failure. As in previous studies we define an *apology* as the combination of "remorse and admission of blameworthiness"[10]. A typical apology would be for example: "I am sorry. I really thought the answer was X." Fischbacher and Utikal (2010) show that there are three kind of messages that increase forgiveness: an *apology*, a message containing a statement of *remorse* without an admission of blameworthiness (e.g. "sorry") or a message containing no statement of remorse but an admission of *blameworthiness* (e.g. "I thought the answer was X."). In their study apologies are most effective to increase forgiveness after a failure. Our results confirm these findings.

Table 2 (column 1) shows that forgiveness is more likely after an *apology* than after *no message* was sent. Also *remorse* and *blameworthy* increase forgiveness, but *apologies* work best. The variable *other* controls for other message contents, but does not have an effect on forgiveness. Player B`s own successful performance in the solo question has a negative effect on forgiveness. Apparently, players use their own result of performance to identify the question's difficulty and thus the intention behind a wrong answer. Male participants forgive less often.

Following, we are going to show that we show that fake apologies bear costs and even honest apologies come along with a cost for some people. Second, we focus on the differences between honest and fake apologies. Third, we will analyze forgiveness after honest and intentional failures and honest and fake apologies.

Frequencies of honest and fake apologies

An apology is the most effective message to increase forgiveness after a failure. Due to this positive effect on forgiveness, it would be reasonable for offenders to apologize. However, only 29% of offenders do so. To elaborate the reason why, we distinguish between honest and fake apologies. 27% of offenders apologize after an intentional failure, whereas 39% apologize after an honest failure.

Obviously not all players apologize after an honest failure. Apologies after intentional failures are even less likely. There is no gender effect. Table 2 (column 2) confirms the results. This means that honest apologies come along with a cost for the majority of players.

with a correct team question happens only for 3% of the observations. Therefore, only about 12% of the players might have applied the described strategy.

[10] Schlenker and Darby (1981)

An apology after an intentional offense even bears additional costs. Since a statement of regret without regretting is a lie, these costs can be recorded a lying costs.

	(1) forgive	(2) apology
apology	0.175** (0.071)	
remorse	0.135*** (0.048)	
blameworthy	0.139** (0.061)	
other message	0.0593 (0.074)	
solosolved	-0.191*** (0.061)	
male	-0.160*** (0.053)	-0.0274 (0.051)
honest failure		0.118*** (0.042)
observations	499	499
pseudo R-squared	0.082	0.009

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table 2: Probit regressions, reporting marginal effects, with robust standard errors, standard errors in parentheses clustered on session, wrong team question only, column 1: omitted variable *no message*

variable	**Example**	**honest apology**	**fake apology**
smiley	☺/ ☹	0.22	0.44
English	Sorry.	0.61	0.69
German	Entschuldigung.	0.47	0.37
acceptance request	Please forgive me.	0.11	0.15
guess	I had to guess.	0.11	0.10
solo wrong	I also got the solo question wrong.	0.06	0.03
foreigner	I am a foreigner.	0.03	0.03
wrong click	I clicked on the wrong answer too fast.	0.00	0.12
intention	I needed the money.	0.00	0.04

Table 3: Frequency of various contents in honest and fake apologies

Content of honest and fake apologies

Not only is the probability to apologize lower after an intentional failures. Also the content of honest and fake apologies differs. As Table 3 shows, honest and fake apologies follow different patterns as regards contents and wording. *Smileys* are frequently used in dishonest apologies, but not in honest apologies. There are three ways how offenders in our German subject pool communicate their remorse. Either, they use the German phrase

"Entschuldigung" (*German*) or they stick to the English word "sorry" (*English*) or both. The German expression is more likely to be used in an honest apology. Messages that declare *intention* or blame a *wrong click* can only be found within the pool of dishonest apologies. There are no gender effects. These findings are confirmed by the regression in Table 4 (column 1).

	(1) honest apology	(2) forgive	(3) forgive
honest failure		0.165***	0.163**
		(0.0531)	(0.0659)
smiley	-0.178*		0.107
	(0.0925)		(0.133)
German	0.113**		0.00744
	(0.0561)		(0.102)
acceptance request	-0.0992		0.0953
	(0.0690)		(0.0956)
guess	0.0258		0.0371
	(0.0331)		(0.224)
solo wrong	0.215		0.0511
	(0.230)		(0.338)
foreigner	-0.112		-0.0979
	(0.0986)		(0.114)
wrong click			-0.203*
			(0.108)
intention			-0.117
			(0.220)
male	0.0251	-0.115**	-0.116**
	(0.0736)	(0.0556)	(0.0547)
solo solved		-0.0811	-0.0860
		(0.0955)	(0.0950)
Observations	146	146	146
pseudo R-squared	0.06	0.03	0.06

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table 4: Probit regressions, reporting marginal effects, with robust standard errors, standard errors in parentheses clustered on session, apologies only

Forgiveness after honest and fake apologies

Honest and fake apologies follow different patterns with respect to frequencies and contents. The logical follow-up question is whether player B's forgiveness decisions is affected by these signals. Are players able to identify honest and fake apologies? Do they forgive more often after honest apologies? Table 3 (columns 2-3) present evidence that players can identify whether an apology is honest or fake. Honest apologies are forgiven significantly more often than fake ones even when controlling for specific contents of apologies.

4. Conclusion

This paper analyzes the differences between honest and fake apologies. First, honest and fake apologies come along with different costs. There are costs for the statement of an apology itself and additional costs if the apology is fake. The latter can be explained by lying aversion. An apology after an intentional failure can be seen as a lie. If people are lying averse, lying (and therefore apologizing) are costly. If the cost exceeds the expected gain obtained by forgiveness, lying-averse people will abstain from apologizing. Lying costs can also explain why there is different content in fake and honest apologies. Certain expressions (as the use of the English language) seem to be perceived as a smaller lie than the use of other expressions (as the use of the German language). A reason why also honest apologies are costly is guilt aversion. Some people just do not like to admit that they were wrong.

To summarize: An apology is no cheap talk but a signal. Although receivers of apologies have no information about the intention behind a failure, they can distinguish between fake and honest apologies. Following, forgiveness after an honest apology is more likely than after a fake apology.

5. Instructions (Player A)

Welcome to today's experiment. Please read the following instructions carefully. If you have any questions, please raise your hand. For your participation today you will receive 2 euros. Additionally you can earn money by your decisions and the decisions of others. Nobody will learn your identity. Neither will you learn the identity of the other participants.

During the experiment we do not use euros but points. The points you receive during the experiment will be exchanged into euros, whereas 100 points = 1 euro.

EXPERIMENT

In this experiment there are participants A and participants B. For the whole experiment you are participant A. You will be interacting with a randomly determined participant B.

1a) Solo Question

Every participant receives a multiple choice question with 4 possible questions. Only one answer is correct. If you answer this Solo Question correctly you will receive 10 points. If your answer is wrong, you will receive no points.

1b) Team Question

Participant A receives the same question also as a Team Question. If he answers the question correctly, both participants A and B receive 100 points. If his answer is wrong, participant A receives 140 points and participant B receives 50 points.

2) Solution

Participants A and B learn whether themselves answered the solo Solo Question correctly. They also learn whether participant A answered the Team Question correctly. However, they do not learn which answer was given.

3) Message

In case participant A answered the Team Question wrongly, participant A can send a message to participant B.

4) Forgiving

Participant B receives the message and can decide whether to forgive participant A. If he forgives, points do not change. If he does not forgive, participant B looses 30 points

5) End

Participant A and B learn their points they received in this round and a new round begins. There are 10 rounds in total. In every round the participants interacts with a participant they have not interacted with before.

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