

How the truth can make a great lie: An empirical investigation of the folk concept of lying by falsely implicating

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Abstract

Is it possible to lie despite not saying anything false? While the spontaneous answer seems to be ‘no’, there is some evidence from ordinary language that a lie does not require what is said to be believed-false. In this paper, we will argue for a pragmatic extension of the standard definition of lying. More specifically, we will present three experiments which show that people’s concept of lying is not about what is said, but about what is implied by saying it that way. We test three Gricean conversational maxims. For each one of them we demonstrate that if a speaker implies something misleading, even by saying something semantically true, it is still considered lying.

Keywords: lying; concept of lying, deceiving; Grice; conversational implicature

Introduction

According to the standard philosophical definition of lying, an agent lies if she makes “a believed-false statement to another person with the intention that that other person believes that statement to be true” (Mahon, 2008). Such a definition of lying entails four necessary conditions, namely the *Statement Condition*, the *Untruthfulness Condition*, the *Addressee Condition*, and the *Intention-to-Deceive Condition*. According to Intention-to-Deceive Condition, a lying agent aim to deceive. In order to deceive, however, the lie needs to be directed at someone capable of forming false beliefs (Addressee Condition; for a critical perspective see Rutschmann & Wiegmann, 2017). The means to deceive the addressee is said to be a linguistic statement. The Statement Condition is not limited to verbal or written statements but further includes other linguistic symbols. Finally, this statement need to be uttered untruthfully. Untruthfulness does not require the uttered statement to be objectively false but that the speaker believes his statement to be false. As a consequence, an agent might be lying even if what she believes to be false turns out true. In an empirical study, Wiegmann, Samland, and Waldmann (2016) demonstrated that lay people’s intuitions about lying are in line with the Untruthfulness Condition

However, there seem to be cases in which lies do not even require that the agent believes what is said to be false. Benjamin Franklin famously said that “Half a truth is often a great lie”. So-called *lies of omission* seem quite frequent in ordinary conversations. The American elections 2016 provide many interesting examples in which both presidential candidates were criticized for lying, even though what they said was not, strictly speaking, false. Those cases include oversimplifications, using outdated or misleading statistics

(for instance on the murder rate, African American unemployment, or tax deficits), and suspiciously loose speech.

In this paper, we will empirically test the possibility that lying is not tied to semantic falsity but rather about false implicatures. We hypothesise that at the core of people’s concept of lying is the discrepancy between what the speaker believes to be true and the belief she believes to create in the addressee by what she says or by what she implies by saying it.

Conversational Implicatures

Many philosophers and linguists believe that what is relevant for a conversation is not only what we say but also what we imply by saying it. According to Grice (1975), every conversational context rests on the assumption that both speakers share a conversational goal, for instance making a decision on where to travel, or discussing various political opinions. Conversational goals can be introduced in various ways, most easily by direct questions, such as “Where shall we go for the summer holidays next year?”. In light of this shared goal, both speakers can expect the other to be cooperative, that is to make their “conversational contribution such as is required, at the stage at which it occurs, by the accepted purpose or direction of the talk exchange in which [they] are engaged.” (Grice, 1975, p. 46) In order to make pursuing this joint conversation goal as efficient as possible, four Maxims should be obeyed:

1. Quantity
 - Make your contribution as informative as required (for the current purpose of the exchange)
 - Do not make your contribution more informative than is required
2. Quality
 - Do not say what you believe to be false
 - Do not say that for which you lack adequate evidence
3. Relation (Be relevant!)
4. Manner
 - Avoid obscurity of expression
 - Avoid ambiguity
 - Be brief (avoid unnecessary prolixity)
 - Be orderly

Violations of these maxims at the level of what is said are very typical in ordinary language—so typical that we are seldom surprised when people do it. Non-literal speech such as irony (“If you want to have a heavenly summer experience,

I recommend London! Warm and sunny all day!"), metaphors ("You're a peach!"), or hyperbole ("This is the best cake I have ever eaten in my entire life.") provide the most obvious examples in which people immediately infer what is meant beyond what is said (cf. Viebahn, in press). Such an inference is possible because we expect our conversational partner to be cooperative, and therefore interpret even violations of the conversational maxims as furthering the joint communicative goal (cf. Dinges, 2015).

Lying and Falsely Implicating

If there is such a thing as lying by falsely implicating, it might work very similarly. A speaker utters something that violates a conversational maxim. The addressee immediately tries to infer what this utterance might contribute to the joint conversational goal. However, most crucially, in addition to violating a maxim, the speaker also violates the Cooperative Principle. For the addressee, there is yet no indication that the Cooperative Principle has been violated.

We suggest that lying is not only a matter of what is said but also of what is implied (cf. Meibauer, 2005). If a person intentionally violates a maxim in order to create a belief in the addressee which the speaker believes to be false, this violation is considered a case of lying, irrespective of what is said is true at a semantic level. If this hypothesis is correct, then the Untruthfulness Condition under its semantic reading is too limited to adequately capture the folk concept of lying. Rather, central to the folk concept of lying is a discrepancy between what the speaker believes to be true and what he believes to make the listener believe. Whether this belief is generated by what is said or what is implied by so saying seems to be secondary.

Experiment 1: Violating the Maxim of Quantity

According to Grice, the Cooperative Principle requires the agent to make their contribution as informative as required, and to not omit relevant information. In our first experiment, we test whether violations of the Maxim of Quantity are considered lies. Our hypothesis presupposes that deceiving by violating conversational maxims is only possible if the addressee believes the speaker to be cooperative, that is to share with her a conversational goal. Consequently, we created vignettes in which two agents conversationally interact and agent A asks a question. Agent B, however, intentionally omits information which he believes to be relevant to agent A but which might also get B into trouble.

In the literature on lies of omission, two variants are discussed. On the one hand, a speaker might completely refrain from making a declarative statement. In our experiment, the speaker suggests changing the topic and asks a question in return. On the other hand, lies of omissions might also be told by using half-truths (Vincent and Castelfranchi, 1981). In the experimental condition Half-Truth, the speaker provides an answer to the question, and, thus, makes a statement. However, he omits the relevant, yet potentially troublesome piece of information. Again, the speaker is not untruthful as he believes his statement to be true. We predict

that participants will consider both scenarios instances of lying.

Methods

The experiment was run online in the U.K (same in all following experiments) using Prolific Academics. 474 participants started the experiment, 451 were included in the analysis (we excluded participants who did not finish the survey, went through it in less than 40 seconds, or failed an attention check – we used the same criteria in all following experiments). 50% identified as male, 50% as female. Mean age was 32 years and participants earned £ 0.20 for their participation (same amount in all experiments).

Participants first read general instructions (same procedure in all following experiments). They were then randomly assigned to one of four conditions in a 2 (vignette: Couple vs. Car) * 2 (deception: ChangeTopic vs. Half-Truth) between-subjects design. They were presented with one of two vignettes, namely either Couple or Car. The Couple vignette reads as follows.

Couple: *Peter and Jane have been a couple for a year now. They are very happy and just moved in together. Peter trusts Jane, but he knows about her ex-fiancé Steven who still tries to win Jane back. Thus, Peter is very jealous and does not like Jane meeting Steven. Jane is sometimes thinking about getting back together with Steven. As they work in the same company, they have coffee from time to time to talk about their joint projects. Today, Jane and Steven have coffee after lunch to finalize a cost calculation they are supposed to send to their client the next morning. After a few minutes, Steven asks Jane if they could talk about each other and getting back together. Jane tells Steven that they don't have much time and need to focus on the project.*

In the evening, Peter and Jane have dinner. Peter asks Jane "What did you do during your lunch break?"

In the ChangeTopic Condition, the story continued as follows:

To avoid mentioning that she saw Steven during lunch, Jane quickly changes the subject and says:

"Let's talk about something other than work. How was the football training?"

Just as Jane intended, Peter never asks about her lunch break and does not believe Jane met with Steven."

In the Half-Truth Condition, the ending was changed to:

"To avoid mentioning that she saw Steven during lunch, Jane tells Peter only half the truth, omitting her meeting with Steven:

"I had lunch at the cafeteria. Then I had a coffee and went back to the office. It was such a busy day."

Just as Jane intended, Peter never asks about her lunch break and does not believe Jane met with Steven.

After reading the vignettes, participants were asked: "Do you rather agree or disagree with the following statement:

Jane lied to Peter"; and they could choose between "I (rather) agree" and "I (rather) disagree" (same test question and response options in all following experiments except of Experiment 3c).

Results and Discussion

The results of the experiment are summarized in Figure 1. In the Couple condition, only 30% (34 out of 113) consider Jane’s behaviour as a case of lying in ChangeTopic. However, 65% (74 out of 113) did so in Half-Truth. The difference between ChangeTopic and Half-Truth in the Couple vignette is statistically significant, χ^2 (df = 1, N = 226) = 28.37, $p < 0.001$. Moreover, agreement in ChangeTopic is significantly below chance (50%) level (binomial test, 34 out of 113, test value = .5, $p < .0001$), whereas agreement in Half-Truth is significantly above chance level, (binomial test, 74 out of 113, test value = .5, $p < .01$).

In the Car condition, 56% (60 out of 107) agreed that Nick lied to Kathy when Nick changed the topic. In contrast, 69% (81 out of 118) did so in Half-Truth. The difference between ChangeTopic and Half-Truth in Car is marginally significant χ^2 (df = 1, N = 225) = 3.79, $p = 0.0516$. ChangeTopic is not significantly different from chance (binomial test, 60 out of 107, test value = .5, $p = .2459$), but Half-Truth is above chance level (binomial test, 81 out of 118, test value = .5, $p < .0001$). Comparing Car and Couple showed a significant difference for ChangeTopic, χ^2 (df = 1, N = 220) = 15.17, $p < 0.001$, but no difference for Half-Truth, χ^2 (df = 1, N = 231) = 0.26, $p = 0.61$.

The results of our first experiments allow for a more nuanced view on whether we can lie by omission. If an agent deceives by answering to a question but omits facts which are relevant to the question, the agent is judged to have lied. However, changing the topic and omitting an answer altogether is not considered a case of lying.

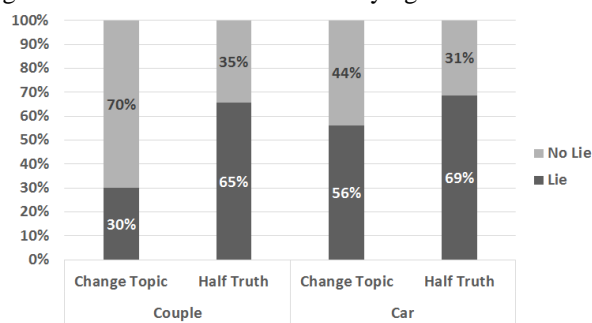


Figure 1: Proportions of lie judgments as a function of vignette and kind of deception in Experiment 1

Experiment 2: Violating the Maxim of Relation

The Maxim of Relation requires a speaker to only provide relevant information. In this experiment, we altered the vignettes used in experiment 1 such that the speaker provides information which is completely irrelevant to the actual question, but which seems relevant. All information that is given is true, and, thus, the Untruthfulness Condition of the standard definition of lying is not met.

Methods

220 participants started the experiment, 208 were included in the analysis (44% identified as male, 56% as female). Mean age was 34 years. Participants were randomly assigned to one

of two conditions (vignette: Couple vs. Car) in a between-subjects design. Here is the vignette for Couple.

Couple: *Peter and Jane have been a couple for a year now. They are very happy and just moved in together. Peter trusts Jane, but he knows about her ex-fiancé Steven who still tries to win Jane back. Thus, Peter is very jealous and does not like Jane meeting Steven. Jane is sometimes thinking about getting back together with Steven. As they work in the same company, they have coffee from time to time to talk about their joint projects.*

Today, Jane and Steven have coffee after lunch to finalize a cost calculation they are supposed to send to their client the next morning. After a few minutes, Steven asks Jane if they could talk about each other and getting back together. Jane tells Steven that they don't have much time and need to focus on the project. Steven has been sick the whole week, but he has nevertheless been at work.

In the evening, Peter and Jane have dinner. Peter asks Jane:

“You told me about this project with your ex-fiancé. Did you see him today?”

To avoid confirming that she saw Steven during lunch, Jane says:

“Steven has been sick the whole week.”

Just as Jane intended, Peter does not believe Jane met with Steven.

Results and Discussion

The results of the experiment are summarized in Figure 2. Let us start with the Couple vignette. The clear majority of participants, 81% (84 out of 104) considered Jane’s behaviour a case of lying. This proportion is significantly different from chance (50%) level (binomial test, 84 out of 104, test value = .5, $p < .0001$). For the Car vignette, we obtained similar results. 76% (79 out of 104) considered Nick’s behaviour a case of lying. This proportion is significantly different from chance (50%) level (binomial test, 79 out of 104, test value = .5, $p < .0001$). Comparing Car and Couple showed no significant difference, χ^2 (df = 1, N = 208) = 0.71, $p = 0.40$. Again, even though the agent was being truthful under a said-based definition of lying, people consider the agents’ responses as lies.

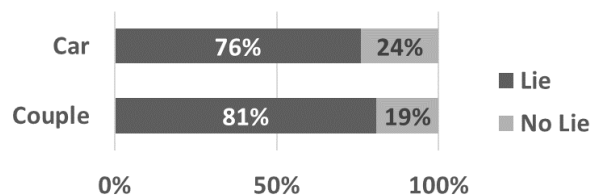


Figure 2: Proportions of lie judgments as a function of vignette in Experiment 2

Experiment 3: Violating the Maxim of Manner

The Maxim of Manner is not so much concerned with what is said, but *how* it is said. In this experiment, we empirically test whether the violation of its sub-maxims lead to an answer being considered a lie. Experiment 3 is therefore divided into sub-chapters, with section a) investigating Ambiguity and

Context-Sensitivity, section b) Obscurity, and section c) the maxim of Order. In all conditions, what the speakers says is true under a semantic reading, and the speaker is being truthful. However, the speaker deceives the addressee by using ambiguous terms, or terms whose reference is highly context-dependent, or by presenting information in an order that does not reflect the temporal order of events.

In Experiment 3 c, we also address a potential objection to our experiments. It might be argued that the results we have gotten so far are a mere artefact of our experimental design. The argument might go like this: Lying is typically considered a case of deceiving or misleading. In all experiments presented so far, we only asked people whether they agreed or disagreed that the agent lied, and we did not give any alternative options. However, it is well-known that deceiving others for one's own benefit is morally condemned. Thus, participants might have agreed to lie statement only to express their disapproval, while not in fact believing that the agent lied. If we had also asked participants whether the agent deceived, agreement with the lie statement might decline. We believe that this point is well taken. In Experiment 3, we therefore added a new independent variable, namely the number of questions asked after the scenarios.

Exp. 3a) Ambiguity

Methods 204 participants started the experiment, 197 were included in the analysis. 42% identified as male, 58% as female. Mean age was 34 years. Participants were randomly assigned to one of two conditions (vignette: Couple vs. Car) in a between-subjects design.

Car: *Nick is a car salesman. He is currently trying to sell a small car. Nick's wife is the boss of the company. They have been a couple since high school. She drives the same model as the one Nick is trying to sell. She is satisfied with her car and she thinks that the boot is spacious enough.*

Kathy is interested in buying the car. However, she needs the car for grocery shopping, and to take her two kids to their rugby matches. Thus, she needs a spacious boot. Kathy wonders if the car's boot is big enough for her daily needs. She asks:

"I always need to move a lot of stuff in the boot. This one looks rather small to me. Do you believe that the boot is big enough?"

Nick realizes that Kathy might not buy the car if he can't convince her that the boot is big enough for her daily needs. To avoid mentioning that he only knows one person who drives the car and who is very happy with the boot's size, Nick says:

"My wife has the same car and shared your worries, but then she was surprised how spacious the boot is. Also my boss has never had any problems with the boot. And even my first love in high school with her three kids says that the boot is big enough."

Just as Nick intended, Kathy believes that Nick knows three different people who are satisfied with the size of the boot. She does not believe that the three people are in fact one and the same person.

Results and Discussion

The results of the experiment are summarized in Figure 3. For the Couple vignette, the clear majority of participants, 83% (80 out of 96) considered Jane's behavior a case of lying. This proportion is significantly different from chance (50%) level, (binomial test, 80 out of 96, test value = .5, $p < .00001$). For the Car vignette, we obtained similar results. 80% (81 out of 101) considered Nick's behaviour a lie. This proportion is significantly different from chance (50%) level (binomial test, 81 out of 101, test value = .5, $p < .00001$). Comparing Car and Couple revealed no significant difference, χ^2 (df = 1, N = 197) = 0.32, $p = 0.57$.

In both conditions, participants believed that the speaker told a lie, even though what the speaker said was true and believed to be true. The results put additional pressure on advocates of a semantically grounded understanding of the Untruthfulness condition and the Statement Condition.

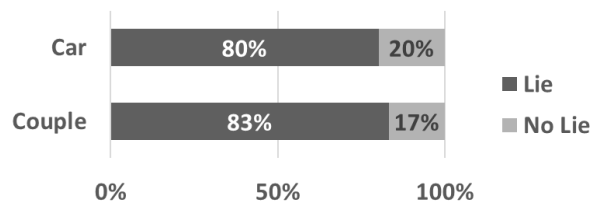


Figure 3: Proportions of lie judgments as a function of vignette in Experiment 3a

Exp. 3b) Obscurity

Methods 210 participants started the experiment, 206 were included in the analysis. 45% identified as male, 55% as female. Mean age was 34 years. Participants were randomly assigned to one of two conditions (vignette: Couple vs. Car) in a between-subjects design. They were presented with one of the following stories.

Car: *Nick is a car salesman. He is currently trying to sell his brother's car which has 55,000 miles on it. Nick's brother needs to get as much money for the car as possible. For this reason, he set the milometer back to 25,000 miles before asking Nick to sell it. As a consequence of the manipulation, the milometer shows 30,000 miles less than actually driven. Nick has decided to ask for 5000 GBP. Nick knows that if a client learned about the manipulated milometer, Nick won't be able to sell the car for 5000 GBP.*

Kathy is interested in buying the car. Kathy is surprised that a 10-year old car has only 25,000 miles on it. She says to Nick: "Is this milometer accurate?"

To avoid mentioning that the milometer does not show the correct distance driven with this car (55,000 miles), Nick mentions that the milometer measures distances perfectly accurate, in the sense that if you drive one mile the tolerance is less than 0.1% (i.e., the milometer measures something between 1,758 and 1,762 yards):

"The milometer is super accurate and only allows for a 0.1% tolerance"

Just as Nick intended, Kathy believes that the milometer shows the correct distance driven with the car, and she does not believe that the milometer was set back.

Results and Discussion The results of the experiment are summarized in Figure 4. The clear majority of participants, 90% (93 out of 103) considered Jane’s behavior a case of lying. This proportion is significantly different from chance (50%) level (binomial test, 93 out of 103, test value = .5, $p < .00001$).

For the Car vignette, the results are similar. 78% (80 out of 103) agreed that Nick lied to Kathy. This proportion is significantly different from chance (50%) level, (binomial test, 80 out of 103, test value = .5, $p < .00001$).

Comparing Car and Couple showed a significant difference, χ^2 (df = 1, N = 206) = 6.10, $p < 0.05$, with higher lying rates for the Couple vignette.

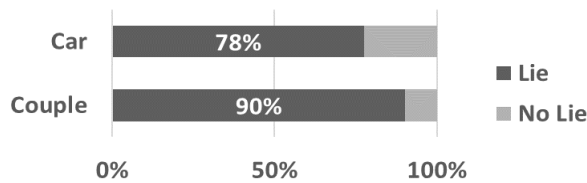


Figure 4: Proportions of lie judgments as a function of vignette in Experiment 3b

Exp. 3c) Order

Methods 407 participants started the experiment, 386 were included in the analysis. 46% identified as male, 54% as female. Mean age was 35 years.

Participants were randomly assigned to one of four conditions in a 2 (vignette: Couple vs. Car) x 2 (number of questions: OneQuestion vs. FiveQuestion) in a between-subjects design.

Couple: *Peter and Jane have been a couple for a year now. They are very happy and just moved in together. Peter trusts Jane, but he knows about her ex-fiancé Steven who still tries to win Jane back and works in the same company as Jane. Thus, Peter is very jealous and does not like Jane meeting Steven. Jane is sometimes thinking about getting back together with Steven.*

Today, the traffic on Jane’s way to work was very busy. At work, Jane always do the things that feels most important for her first and the things she does not consider important last. Peter knows about this habit. He also knows that today Jane is supposed to meet to talk about a joint project but also that the project is not very important. Today, Jane first wants to see Steven. This is not because she thinks that the project is the most important thing to do today but rather because she aches for Steven. So she visits him for a few minutes and discusses a few questions about a joint project. She then works on a big project of a client. Afterwards, she writes a couple of emails to clients and before she drives home she started writing an application for a higher position in her company.

In the evening, Peter and Jane have dinner. Peter wants to know about Jane’s day:

“When did you meet Steven?”

To avoid mentioning that seeing Steven was the first thing she did, she does mention this event last:

“The traffic on my way to the company was really busy. I worked on this big project I told you about recently. I wrote a couple of emails to clients and started writing my application for the higher position in our company. I shortly visited Steven, discussed a few question about our joint project and drove home.”

Just as Jane intended, Peter thinks that meeting Steven was the last thing she did at work.

In the OneQuestion Condition, participants were asked: *“Do you rather agree or disagree with the following statement: Jane lied to Peter”*. Participants could choose between *“I (rather) agree”* and *“I (rather) disagree”*. In FiveQuestions, participants were asked: *“Do you rather agree or disagree with the following statement:*

Jane deceived Peter.

Jane’s behaviour was morally bad.

Jane did not want to hurt Peter’s feelings.

Jane’s behaviour is blameworthy.

Jane lied to Peter.

And could choose for each statement between *“I (rather) agree”* and *“I (rather) disagree”*.

Results and Discussion The results of the experiment are summarized in Figure 5. Let us start with the standard (One Question) Couple vignette. The clear majority of participants, (74%, 68 out of 92) agreed that Jane lied to Peter. This proportion is significantly different from chance (50%) level (binomial test, 68 out of 92, test value = .5, $p < .00001$). In the 5Question variant of the Couple vignette, we found a similar pattern. The clear majority of participants (75%, 74 out of 99) considered Jane’s behaviour a case of lying. This proportion is significantly different from chance (50%) level, (binomial test, 74 out of 99, test value = .5, $p < .00001$). There was no significant difference between the OneQuestion and the FiveQuestion variant of the Couple vignette, χ^2 (df = 1, N = 191) = 0.02, $p = 0.90$.

In the standard (OneQuestion) Car condition, the clear majority of participants (86%, 83 out of 96) considered Nicks’s behaviour a case of lying. This proportion is significantly different from chance (50%) level (binomial test, 83 out of 96, test value = .5, $p < .00001$).

This pattern was similar for the 5Question variant of the Car vignette. The clear majority of participants (79%, 78 out of 99) considered Nick’s behaviour a case of lying. This proportion is significantly different from chance (50%) level (binomial test, 78 out of 99, test value = .5, $p < .00001$). There was no significant difference between the OneQuestion and the FiveQuestion variant of the Couple vignette, χ^2 (df = 1, N = 195) = 1.992, $p = 0.16$.

Deceiving by mentioning the relevant facts in reversed order was considered lying. Furthermore, providing participants with the opportunity to express their moral evaluation of the agent and allowing them to indicate that the agent did only deceive another person (in contrast to: lied to) did not affect lie judgments.

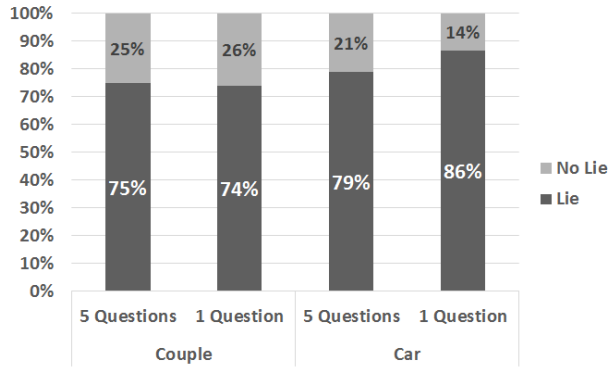


Figure 5: Proportions of lie judgments as a function of vignette and number of questions in Experiment 3c

General Discussion

Do people consider utterances that are not semantically wrong but pragmatically misleading lies? In this paper, we showed that for something to be a lie, subjective falsity at the semantic level is not necessary. A speaker might say something which is both true and which he believes to be true. What seems to be at the heart of people’s concept of lying is that the speaker believes to create a belief in the addressee which he himself believes to be false. Whether this false belief is the result of a wrong statement or a false implicature seems to be secondary. In three experiments, we tested whether the violation of three Conversational Maxims would lead to something semantically true being considered a lie. For all the Maxims (Quantity, Relation, and Manner) this effect showed.

When the speaker violates the Maxim of Quantity by omitting relevant information (Exp. 1), participants considered such a statement to be a lie. These results support those philosophers and linguists who have argued for lies of omissions to be actual lies. However, those results put pressure on a semantically grounded understanding of the standard definition of lying and on authors who have denied that lies of omissions can be actual lies (Mahon 2003; Dynel 2011). Furthermore, Experiments 2 and 3 also indicate that said-based definitions cannot account for people’s concept of lying. Our results rather indicate that lying occurs at the level of pragmatics, by deceiving others through falsely implicating.

There are two argumentative lines one might want to argue for in line of our results. The most radical way to deal with our results is to reject the standard definition of lying and to search for a radically new definition that focuses on pragmatics alone. We believe such a dismissal of the standard definition to be too rash. The standard definition seems to adequately capture the folk’s intuitions in most cases of lying. However, things get messier around the edges. Alternatively, we suggest a reinterpretation that allows us to adequately map folk intuitions by making as few changes as possible. First, the Untruthfulness Condition seems more appropriately understood at the level of pragmatics. In line with previous research, we suggest maintaining a subjective understanding of untruthfulness, but to decouple it from what is said in the semantic sense. Accordingly, an agent is being untruthful if there is a discrepancy between what the agent believes to be

true and what he believes to communicate by saying something. Second, such an adaption allows for untruthfulness to be demonstrated without making a statement. If our account is appropriate, we believe that an agent may lie by falsely implicating by answering with a question in return (“Did you see your ex-fiancé today?”—“Are going to ask me this question every day now? What is wrong with you?”), by requesting (“Don’t you ever ask me this again!”), etc. Additional research is required on the extent to which we should re-interpret the Statement Condition in a more pragmatic fashion.

Acknowledgments

This project was supported by the Leibniz Association through funding for the Leibniz ScienceCampus Primate Cognition at Georg-August University Goettingen., the Konrad-Adenauer Foundation, and the Research School at Ruhr-University Bochum.

We would like to thank Emanuel Viebahn for challenging discussions and his comments on a previous version of this paper.

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