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The Linguistics of Lying

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Abstract

This review deals with the communicative act of lying from a linguistic point of view, linguistics comprising both grammar and pragmatics. Integrating findings from the philosophy of language and from psychology, I show that the potential for lying is rooted in the language system. The tasks of providing an adequate definition of lying and of distinguishing lying from other concepts of deception (such as bald-faced lying and bullshitting) can be solved when interfaces between grammar and pragmatics are taken into account and when experimental results are used to narrow down theoretical approaches. Assuming a broadly neo-Gricean background, this review focuses on four theoretical topics: the role of the truth in lying, the scalarity and imprecision of lying, the speaker's intent to deceive, and the possibility of producing deceptive implicatures. I also briefly discuss questions of lying and neuroscience, the acquisition of lying, and prosocial and cross-cultural contexts of lying.

1. INTRODUCTION

Lying has been studied by philosophers of language for many centuries, as seminal works by St. Augustine, St. Thomas Aquinas, Immanuel Kant, and others show; there is also an important tradition of psychological research, especially with regard to such fields as language acquisition and lie detection (for surveys, see Levine 2014, Meibauer forthcoming). However, although lying is essential for human communication, there are not many analyses that deal with lying from a linguistic point of view. Therefore, this review adds a linguistic perspective to the research on lying.

There are good reasons to assume a linguistics of lying. On the one hand, lying has to do with truth and falsehood, and because these are semantic notions, there is a semantic side to lying. On the other hand, lying has to do with the speech act of assertion, which is a genuine pragmatic notion. Therefore, a reasonable definition of lying needs to encompass both semantic and pragmatic properties. And still other linguistic components, such as prosody, syntax, and the lexicon, must be taken into account when investigating the linguistic structure of lying.

Assuming a broadly neo-Gricean background, I integrate findings from recent experimental studies into my discussion of four topics in the linguistics of lying. First, from a "deceptionist" perspective, it is argued that lying is an act of verbal deception, deception being defined as deliberately leading someone into a false belief. In contrast, "nondeceptionists" hold that lying does not necessarily include deception, as there are so-called bald-faced lies in which the intention to deceive is absent. Second, I discuss whether using untruthful (deceptive) implicatures can also qualify as proper lying. Some scholars hold that this would be a case of "merely misleading." Third, some researchers claim that objective truth/falsehood (as opposed to subjective untruthfulness) is the decisive property of lying, whereas others adhere to the traditional notion of an intention to deceive on the part of the liar. Fourth, it can be shown that the notion of truth is a relative one when one takes into account the scalarity or the imprecision of lying, as well as cases of bullshitting in which loose concern for the truth plays a fundamental role. In sum, this review shows that there is indeed a linguistic framework that is useful for the analysis of lying. And because the details of this framework are rooted in findings from the philosophy of language and experimental psychology, an integrative approach to lying is under way.

Before embarking on the linguistics of lying, I introduce a standard definition of the term. Williams (2002, p. 96) defines lying as "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." For instance, if someone asks me which newspaper I read and I answer "the *Washington Post*" although I never read the *Washington Post*, then I am lying. I have made an assertion, believing that its content was false, and therefore intended to deceive the questioner. And yet, all the basic components of this definition—assertion, belief-to-be-false, intention to deceive—have been challenged (Mahon 2015), as discussed in this review.

In defining lying, several approaches have been pursued. First, it is possible, as in the tradition of Williams (2002), to integrate an intention to deceive on the part of the speaker directly into the definition of lying (e.g., Chisholm & Feehan 1977, Coleman & Kay 1981). Second, one can define lying as an insincere assertion (the liar acts as if he sincerely asserts propositional content p while he does not, in fact, believe p (Meibauer 2014a). A third strategy is applied by Carson (2006, 2010) and Saul (2012), who avoid speaking of an intention to deceive, and also avoid the notion of assertion. Instead, they assume that the liar "intends to warrant the truth" of p while in fact he makes a "false statement" (Carson 2010, p. 37). Finally, lying can be defined as an act in which the first Gricean submaxim of the Maxim of Quality, "Try to make your contribution one that is true," is violated (Dynel 2011, Fallis 2012).

This review is structured as follows. In Sections 2–5, I sketch selected aspects of the prosody, syntax, semantics, and pragmatics of lying. My main goal is to show that there are connections between lying and the structure of a language that are worthy of further exploration. In addition, I relate these aspects to ongoing research on lying and deception, with a focus on the philosophy of language and psychology. In Section 6, I briefly address lying and neuroscience; the acquisition of lying; and typical contexts of lying, including prosocial lies and lying in different cultures.

2. PROSODY OF LYING

2.1. Suprasegmental Phenomena

It is clear that there are no illocutionary indicators (verbal means that make the lying evident) of lying. It is not possible to say *I hereby lie that p*, and it is not possible to explicitly mark an utterance as a lie. Yet the way liars present their spoken lies may contain prosodic properties that point to the cognitive load that comes with their deceptive acts:

> Liars may need to make up their stories and must monitor their fabrications so that they are plausible and adhere to everything the observer knows or might find out. In addition, liars must remember their earlier statements, so that they appear consistent when retelling their story, and know what they told to whom. Liars should also avoid making slips of the tongue and should refrain from providing new leads. (Vrij 2008, pp. 39–41)

Among the vocal cues (Vrij 2008, pp. 90–99) that may point to lying are hesitations, speech errors, high-pitched voice, speech rate, latency period, pause durations, and pause frequency.

2.2. Verum Focus

Verum focus is a strong accent on the finite verb or complementizer that highlights the truth of a proposition (Lohnstein 2016). Consider the following German example, an answer from a CEO in the context of the preceding angry question: *Werden auch keine Stellen gestrichen?* ('So there won't be any job cuts?'):

(1) Es <u>wer</u>den keine Stellen gestrichen.
     it AUX no jobs cut.PARTICIPLE
     "There won't be any job cuts."

In example 1, the finite verb *werden* bears a strong accent. Using verum focus commits the speakers to a high degree to the truth of their utterance. If this utterance is a lie, it is a particularly powerful (aggressive, strong) lie (Meibauer 2014a, pp. 215–19).

3. SYNTAX OF LYING

We know that utterances have an underlying grammatical form. When I say "I read the *Washington Post*," this utterance is a declarative sentence. Because lying is a kind of utterance, we may ask whether there are constraints on the kind of sentence that can be used in the act of lying. In most contemporary approaches, this question is ignored. It is taken for granted that lying capitalizes on declarative sentences. The reason for this is the implicit assumption that lying involves assertion, and that the prototypical form of an assertion is the declarative sentence. On closer inspection, however, this assumption may be challenged on two counts: (*a*) There may be other sentence types that can be used for lying, and (*b*) there may be concepts of lying that are not restricted to assertions.

With respect to count *a*, we look at exclamatives, nonrestrictive relative clauses (NRRCs), and conditionals (Meibauer 2014a, pp. 47–61; Sorensen 2012). The following German example shows an exclamative (where DEM refers to a demonstrative pronoun and MP to a modal particle) (d'Avis 2013):

(2) Hat <u>der</u>   aber   einen   Bart!
    has   DEM   MP   a   beard
    "Boy, what a beard he has!"

The content of example 2 is factive. This content may be presupposed or asserted. If the referent has no beard at all, or if the beard is not particularly striking (relative to some norm), then the speaker is lying.

The next example, also in German, shows an NRRC. Note that the modal particle *ja*, signaling that the propositional content p is uncontroversial, is not possible in restrictive relative clauses:

(3) Das   Jurymitglied,   das   ja   in   seinem   Urteil   schwankte,   wollte   Kaffee.
    the   jury member   that   MP   in   his   judgment   shifted   wanted   coffee
    "The jury member who was uncertain about his judgment wanted coffee."

Whether the NRRC conveys a conventional implicature or a separate illocution is controversial. Arguably, it is possible to lie using these relative clauses, for example, when the speaker believes that p is false.

Finally, consider conditionals:

(4) If you drive two miles down that dirt road, you will be at his front yard.
    (Context: Residents want to protect J.D. Salinger from nosy reporters.)

Sorensen (2012, p. 823) comments on this example: "The conditional is a lie even if the reporter does not drive down that road. There is no need to falsify the speaker's assertion for it to be a lie." According to Sorensen (2012, p. 825), it is conventionally implicated in this sentence that the antecedent is "robust" with respect to the conditional. Robustness is defined as having a high probability for p → q, given p. Robustness makes conditionals fit for modus ponens. Thus, the material conditional F → F = T can be used for lying.

From this analysis, it follows that sentence types other than declarative sentences may be involved in lying, too. This becomes obvious when we consider ways of introducing propositional content into a discourse other than assertions, such as conventional implicatures and presuppositions.

With respect to count *b*, we consider two approaches. The first is the one by Leonard (1959); the second is the one by Dynel (2016). Leonard (1959, p. 183) assumes that it is not only declaratives that can be true or false but also interrogatives and imperatives: "If, for example, I ask a question and I have no concern with getting the information asked for [...] then my asking of the question was a lie." This amounts to the idea that the violation of sincerity conditions may qualify as a lie, which makes lying independent of declarative sentences as the prototypical bearers of assertions. By contrast, Dynel (2015, 2016) applies a Gricean framework and holds that even deceptive irony, metaphor, hyperbole, and meiosis should be acknowledged as genuine cases of lying (see Meibauer 2014a, pp. 161–71; Viebahn 2017). Consequently, she hypothesizes "that covertly untruthful implicatures in the rhetorical figures which revolve around the floutings of the first maxim of Quality can be conceived as lies" (Dynel 2016, p. 201). Accordingly, she proposes that "[a] lie is what is said in the form of an assertion that violates the first maxim of Quality, or in the form of making as if to say that promotes an implicature that violates the first maxim of Quality" (Dynel 2016, p. 202). This means that the concept of lying is detached from insincere assertion and the declarative sentence as its prototypical bearer.

4. SEMANTICS OF LYING

4.1. Truth

Although most scholars in the field of lying research seem to accept standard truth-conditional semantics (Zimmermann 2011), this is rarely made explicit. This may have to do with truth in itself being a far too complex and diverse notion (Künne 2003) and the idea that lying has more to do with truthfulness (the subjective attitude of respecting the truth; see Williams 2002) than with truth (an assertion representing objective facts). And it is also linked to the widespread "contextualist" skepticism against modular semantics–pragmatics distinctions in contrast to the Gricean distinction between "what is said" versus "what is implicated" (Börjesson 2014, Schoubye & Stokke 2016, Terkourafi 2010).

As stated above, traditional definitions of lying assume that the speaker believes that p is false. If it turns out that p is true, the speaker has nevertheless lied, as he had the intention to deceive. This so-called subjective view of lying has recently been attacked by experimental philosophers. Turri & Turri (2015, p. 167) present the following story:

(5) Jacob's friend Mary recently posted information on the internet that will alert the public to serious government corruption. Some federal agents visit Jacob and ask where Mary is in order to detain her. Jacob thinks that Mary is at her brother's house, so he tells the agents, "She is at the grocery store." In fact, Mary is at the grocery store.

In one experiment by Turri & Turri (2015), the participants were asked to assess the following two statements: (a) *He tried to lie but only thinks he lied*. (b) *He tried to lie and actually did lie*. Alternative *a* supports the objective view, whereas alternative *b* supports the subjective view. In this condition, most participants opted for alternative *a*.

However, Wiegmann et al. (2016) object to these results. They argue that the two-part response options led the subjects into the view that they were asked "about the question of whether what Jacob said was objectively false" instead of "merely [...] the question of whether Jacob lied" (Wiegmann et al. 2016, p. 38). In sum, the traditional idea that it is untruthfulness that is decisive for lying cannot be easily refuted.

4.2. Scalarity and Imprecision

Researchers in lying often take for granted that all that matters is the propositional content p. However, how p is presented matters as well. Marsili (2014) proposes the following scalar definition of lying: S lies to A about p if and only if (a) S states p, (b) S believes p is more likely to be false than true, and (c) S intends A to believe p. Condition *b* acknowledges that there are graded beliefs, as expressed by, for instance, epistemic modality markers like *probably* or *certainly*:

(6) Saddam has weapons of mass destruction.
(7) Probably, Saddam has weapons of mass destruction.

According to Marsili (2014), S can lie with sentence 6 while believing that it is probably false (e.g., holding a degree of confidence of 0.3 in its truth), or with sentence 7 while having an outright belief that sentence 6 is false.

In addition to epistemic modality markers, one can consider cases of vagueness or imprecision (Solt 2015), such as cases of telling time or distance (Meibauer 2011; 2014a, pp. 148–52). According to Lasersohn (1999), when telling time, there is a "pragmatic slack":

(8) Peter: Mary arrives at three o'clock.
     John (Mary arriving 15 seconds later): #You said she came at three!

Words like *exactly* are slack regulators. Without them, the pragmatic slack can be used as a "lying slack" (for example, when precision is called for). The case of telling distance is similar (Krifka 2002):

(9) Peter: How far is the distance between Amsterdam and Vienna?
John: 1,000 kilometers.
Peter (becoming aware that it is 965 kilometers): #Why don't you tell the truth?

Thus, levels of precision matter. As Krifka (2002, p. 443) puts it: "When expressing a measurement of an entity, choose a level of precision that is adequate for the purpose at hand." John can only be accused of lying in a situation in which precision is called for.

4.3. Lexical Makeup

There are also certain lexical cues for lying. Several studies that compared honest and dishonest speech found that the typical lexical makeup of utterances changes when it comes to lying (Arciuli et al. 2010, DePaulo et al. 2003, Hancock et al. 2008, Newman et al. 2003, Van Swol et al. 2012). For instance, according to Vrij (2008, pp. 102, 112–14), liars tend to use more negations and more generalizing terms such as *always*, *never*, *nobody*, or *everybody* than do serious speakers; liars also use fewer self-references such as *I*, *me*, or *mine* and have reduced lexical diversity (i.e., the number of different words in a statement divided by the total number of words used in that statement). Moreover, liars are reported to use fewer emotional words (e.g., *sad*) and more verbs of motion (e.g., *go*) in comparison to honest speakers (Van Swol 2014, p. 608). The reason for their selectivity is that the liars want to control their representation of the facts and aim to mask their attitudes.

4.4. The Lexicon: Verbs of Lying and Their Meaning

It seems that the vocabularies of many languages contain verbs of lying and deception with subtle differences in meaning. There are not many studies in the linguistics of lying that take these findings seriously. Among the rare exceptions is a study by Krukowska (2004), who compares German and Polish verbs of lying:

(10) German   *lügen, schwindeln, flunkern, verkohlen...*
(11) Polish   *klamac, lgac, lzec, bujac...*

One dimension of meaning that plays a role here is the gravity of lying. The meaning of the most neutral lexeme or archilexeme may, of course, provide insights into folk concepts of lying. This is the approach taken by Coleman & Kay (1981) in the spirit of prototype semantics. In their study, Coleman and Kay presented several stories to their participants and asked them whether they thought the characters in these stories were lying or not. As a result, they found a hierarchy of meaning components of *to lie*: belief to be false > intent to deceive > false in fact. This methodology is still influential in experimental pragmatics, psychology, and philosophy.

5. PRAGMATICS OF LYING

5.1. Lying as Insincere Assertion

Most theoretical approaches to lying assume that lying is an insincere assertion. This conception raises questions as to what kind of speech act an assertion is and how insincerity is related to assertion. Currently, there are numerous theoretical approaches to assertion in the literature (Brown & Cappelen 2011a,b; Goldberg 2015; Jary 2010; McKinnon 2015), and their analytical formats and theoretical underpinnings differ wildly (Brown & Cappelen 2011a,b). In linguistic pragmatics, however, Searlean speech-act theory is still a good starting point. Note that Searle

(1969, 1979) develops a different set of rules for assertions (see Meibauer 2014a, pp. 64–74). Here, I refer to the approach of Searle (1979):

(12) Assertion
The essential rule: the maker of an assertion commits himself to the truth of the expressed proposition.
The preparatory rules: the speaker must be in a position to provide evidence or reasons for the truth of the expressed proposition.
The expressed proposition must not be obviously true to both the speaker and the hearer in the context of utterance.
The sincerity rule: the speaker commits himself to a belief in the truth of the expressed proposition.
(Searle 1979, p. 74)

Two kinds of commitment figure in this definition, namely the speaker's commitment to the truth of the expressed proposition and the speaker's commitment to a belief in the truth of the expressed proposition. When speakers are insincere, they deceive hearers about their commitment twice, that is, with respect to the truth of the expressed proposition as well as with respect to their belief in that truth (see also Stokke 2014). Note that an assertion-based approach is only one of the influential approaches in linguistic pragmatics. The other is an implicature-based approach in which lying is conceived of as a violation of the first submaxim of the Maxim of Quality: "Do not say what you believe to be false" (Grice 1989a, p. 27). Although this maxim clearly bears some resemblance to the sincerity rule, note that implicature theory does not have much to say about speech-act theory. In my view (Meibauer 2005; 2011; 2014a,c; 2015), these pragmatic approaches complement one another (for different views, compare Carson 2010, Dynel 2011, Fallis 2012, Saul 2012, Stokke 2013b).

5.2. Implicit Content

So far, I have considered instances in which untruthfulness is part of the main content of an assertion. I now turn to the issue of whether implied meanings can also be considered lies.

5.2.1. Deceptive implicatures. One might ask whether it is possible to lie indirectly or "to lie while saying the truth" (Falkenberg 1982, Vincent Marelli & Castelfranchi 1981). Starting from the following story taken from Posner (1980), I have developed the view that it is possible to lie while using deceptive implicatures (Meibauer 2005; 2011; 2014a,c; 2015):

(13) The Story of the Mate and the Captain
A captain and his mate have a long-term quarrel. The mate drinks more rum than is good for him and the captain is determined not to tolerate this behavior any longer. When the mate is drunk again, the captain writes into the logbook: *Today, 11th October, the mate is drunk*. When the mate reads this entry during his next watch, he is first getting angry, then, after a short moment of reflection, he writes into the logbook: *Today, 14th October, the captain is not drunk*.
(Posner 1980)

In this story, even though the mate is telling the truth, he is leading the reader into a false belief, namely that the captain must be drunk on all other occasions. On the basis of such examples, I conclude that deceptive implicatures must be included in a general definition of lying. Thus, in addition to lying without any implicatures, one can lie by implicating q and not believing q. In fact, conversational implicatures are additional propositions that can be true or false. Despite being cancellable, they are intended by the speaker. If the hearers derive their content and believe it, they

are duped. This concept is reinforced by the concept of the "total signification of an utterance" (TSU) (Grice 1989b, p. 41) which comprises both "what is said" and "what is implicated" (Grice 1989b, p. 41; Martinich 2010). As Burton-Roberts (2013, p. 26) puts it: "The TSU consists of everything communicated by an utterance however it was communicated—i.e., everything the hearer has on his communicative plate at the end of the day."

Several objections may be raised against this approach (Dynel 2015, Horn 2017; also see Meibauer 2015, 2016c). First, it conflates lying and ("mere") misleading, and therefore—*horribile dictu*—semantics and pragmatics. However, because the concept of misleading remains unclear (note that Saul 2012 provides no precise definition), it is better to use the concept of deceptive implicature. Second, speaker commitment differs with respect to assertions and implicatures. Therefore, deceptive implicatures and insincere assertions are distinct. I take it, however, that the speaker is committed to an intended and hearer-derived implicature. From the fact that implicatures are cancellable, one cannot conclude that there is no commitment; yet the speaker may blame the hearer for having wrongly derived the implicature. Third, Horn (2017) finds that there is a distinction between illocutions (in which the speaker is responsible) and misleading statements (in which both speaker and hearer are responsible). However, indirect speech acts show that, in any case, both speaker and hearer are responsible. According to Green (2007, pp. 76–81), the distinction between lying and mere misleading is relevant in perjury. In *Bronston v. United States* (1973), the US Supreme Court decided that a deceptive implicature by Samuel Bronston was not perjury (Solan & Tiersma 2005, pp. 213–21; Tiersma & Solan 2012). Consider the following exchange between the lawyer for a creditor and Bronston:

(14) Lawyer: Do you have any bank accounts in Swiss banks, Mr. Bronston?
     Bronston: No, sir.
     Lawyer: Have you ever?
     Bronston: The company had an account there for about six months, in Zurich.

In fact, Bronston had previously held a large personal bank account in Switzerland for 5 years. Perjury, the Supreme Court holds, should be based on literal truth (the "literal truth defense"). However, lower courts had problems with this ruling. In the end, the Supreme Court held that the idea of misleading is "too vague and confusing" a concept "for a jury to apply consistently" (Solan & Tiersma 2005, p. 215). It is the task of lawyers to pose adequate follow-up questions in order to ensure that the content of the deceptive implicature is asserted by the defendant. With respect to other criminal speech acts, such as fraud, the law seems to be sensitive to indirectness (Mayer Lux 2013).

Recent experimental research shows that the assessment of a deceptive target utterance is subject to variation. In a study of several cases of false implicatures (11 generalized conversational implicatures and 4 particularized conversational implicatures), Weissman & Terkourafi (forthcoming), following the study design of Doran et al. (2012), asked participants whether a target utterance contained in a given vignette was a lie. The experimenters employed three conditions, namely true utterance, false implicature, and lie. Like Coleman & Kay (1981) and Arico & Fallis (2013), the authors applied a seven-point rating scale. Weissman & Terkourafi (forthcoming) found that, in most cases, subjects were not willing to count false implicatures as lies. Exceptions were false implicatures based on cardinals and N and V repetitions. For instance, when Ken was asked where the missing five cupcakes were (one was left), and he answered that he ate three of them while in fact he ate five, he deceptively implicated (i.e., lied) that he ate exactly three cupcakes (logically speaking, it is true that one eats three cupcakes when one eats five cupcakes). The repetition cases included utterances like *There were boxes and boxes* (when there were in fact two boxes) and *Ken drank and drank* (when he drank only two beverages).

However, it was only the liars who had a clear-cut motive; the producers of the false implicatures had no such motive. For instance, in one case of generalized conversational implicature, namely scalar implicature <*hot*, *warm*>, there was no motive given, whereas in the lie condition there was a reason for lying (e.g., Josh's mother always nags Josh about dressing properly so as not to catch a cold), and a similar motive for untruthful implicature was lacking. This observation relates to a critical observation by Meibauer (2012) that there are often hidden variables in stories presented to subjects that are not completely controlled. Participants may be reluctant to ascribe a deceptive intention to the producers of false implicatures. My prediction is that, to the degree that the liar's deceptive intentions are evident, participants will be more inclined to vote for lying. This means that motives, contexts, and moral attitudes will play an important role in the evaluation of target utterances.

Indeed, a study by Willemsen & Wiegmann (2017) shows that deceptive implicatures are considered to be lies when the deceptive intent of the speaker is made clear. In their first experiment, concerning the violation of the Maxim of Quantity (lies by omission), subjects were asked whether presenting a half-truth (i.e., leaving out relevant information in order to avoid truthfully answering the question under discussion) constituted a lie. In this condition, 65% of the 451 subjects agreed. Two further experiments dealing with the Maxim of Relation and the Maxim of Manner also supported the claim "that lying occurs at the level of pragmatics, by deceiving others through falsely implicating."

5.2.2. Other types of implicit content. If lying has to do with the deliberate introduction of false content into the discourse, then presuppositions, conventional implicatures, and explicatures may also be meaning entities involved in lying (Meibauer 2014a, pp. 137–47). As in the definition of lying advanced by Dynel (2016), this would detach the concept of lying from the prototypical case in which lying is understood as an insincere assertion conveyed by a declarative sentence. Progress can be made in this area when a sound typology of pragmatic meanings is developed (Ariel 2016, Borg 2016).

5.3. Lying and Related Concepts

In this section, I turn to two ways of uttering falsehoods that, for varying reasons, can be considered borderline cases: bald-faced lying and bullshitting.

5.3.1. Bald-faced lying. So-called nondeceptionists, like Carson (2006, 2010), Fallis (2009, 2011), Sorensen (2007), and Stokke (2013a,b), argue that the traditional definition of lying, which includes an intention to deceive on the part of the speaker (Chisholm & Feehan 1977, Mahon 2015, Williams 2002), is wrong because there are lies that are not connected to an intention to deceive. A case intended to prove this point is the following scenario:

(15)   The witness
       "Suppose that I witness a crime and clearly see that a particular individual committed the crime. Later, the same person is accused of the crime and, as a witness in court, I am asked whether or not I saw the defendant commit the crime. I make the false statement that I did not see the defendant commit the crime, for fear of being harmed or killed by him. However, I do not intend that my false statements deceive anyone. (I hope that no one believes my testimony and that he is convicted in spite of it.)" (Carson 2010, p. 20)

Carson proposes a definition of lying that does not explicitly refer to an intention to deceive. Instead, he argues, the speaker is in a state in which he/she is "warranting" the truth of p (Carson

2010, p. 37; see also Saul 2012). There are numerous proposals concerning how to conceptualize bald-faced lies (Carson 2010; Dynel 2015; Fallis 2015; Keiser 2016; Kenyon 2003; Lackey 2013; Leland 2015; Meibauer 2014a,b, 2016a; Sorensen 2007, 2010; Staffel 2011). However, there are two major objections to the claim that bald-faced lies contradict the traditional definition of lying.

First, bald-faced lies are not genuine assertions, and hence cannot be lies. For instance, Keiser (2016) argues that bald-faced lies are moves in a language game, but not moves in a conversation. I have argued elsewhere (Meibauer 2014b) that at least some bald-faced lies are not lies but rather insults, because the transparent liar ostensibly violates the Principle of Cooperation (Grice 1989a).

Second, bald-faced lies <u>are</u> lies, and as such, according to the nondeceptionists, they <u>are</u> connected to an intention to deceive. The effect that it is mutual knowledge that p is not true (leading to the idea that an intention to deceive is lacking) is reconstructed as a conversational implicature, as in *I only lied for fear of being harmed*.

In a questionnaire study, Meibauer (2016a) asked 128 students whether they considered putative bald-faced lie utterances contained in 11 stories as being lies, as being deceptive, or as being brazen. On average, the participants (using a seven-point rating scale) said that these utterances (*a*) were lies (as nondeceptionists would do) and (*b*) were connected to an intention to deceive (and thus not supportive of the nondeceptionists' view). With respect to the property of brazenness, the participants agreed that some bald-faced lies are not brazen whereas others are (e.g., a husband telling a bald-faced lie to his spouse about his affair). This finding shows that the participants took the motives of the bald-faced liars into account. Rutschmann & Wiegmann (2017) created scenarios that laypersons judged to be lies without there being an intention to deceive. For instance, in lying games (e.g., on April Fools' Day) the primary intention is not to deceive but to make a joke. This, however, seems to support Keiser's (2016) assertion that bald-faced lies are not regular moves in a conversation.

5.3.2. Bullshitting. The concept of bullshitting was developed by Frankfurt (2005), who, interestingly, neither provided convincing examples of bullshitting nor offered a definition in terms of necessary conditions. As an exemplar of advertising bullshit, Meibauer (2014a, 2016a) discusses an ad for "Fractional Neck Lift Concentrate" that appeared in the magazine *Wallpaper* in October 2009. Although the text as a whole is bullshit, from a speech-act theoretical point of view it suffices to isolate a single act of bullshitting (emphasis in original):

(16) And the active clinical results? Too many to name, but a **350% improvement in wrinkle appearance** during an 84-day third-party study of 60 volunteers stands out as unprecedented proof. [Avant-garde aroma: earth tones and floral roots]

In particular, the assertion of "a 350% improvement in wrinkle appearance during an 84-day third-party study of 60 volunteers stands out as unprecedented proof" constitutes bullshit. In addition, from the point of view of information structure, the (dis-)connection between the information in brackets and the preceding text supports the impression of bullshit.

Drawing on Frankfurt's (2005) analysis, I have proposed the following definition of bullshitting:

(17) Bullshitting (reconstructing Frankfurt)
      The speaker was bullshitting at time t that p iff
      (a) The speaker acted as if he asserted that p, however:
      (b) [loose concern for the truth] the speaker neither intended to present p as true nor intended to present p as not true.
      (c) [misrepresentational intent] the speaker intended that the addressee did not become aware of (b).
      (Meibauer 2014a, pp. 175–76)

Thus, whereas in a sincere assertion the speaker presents p as true, in bullshitting the speaker is ignorant with respect to matters of truth and falsity. If it is accepted that bullshitters tend to present their contents with far too much certainty, we can add yet another condition, 17*d*, that draws on a certainty norm for assertion: "Assert that p only if you are certain that p" (Unger 1975, Stanley 2008), namely "[too much certainty] the speaker presented p with far more certainty than would be adequate considering [his] loose concern for the truth" (Meibauer 2014a, 2016b).

According to Carson (2010, p. 62), "the concept of bullshit is too loose and amorphous to admit of a definition in terms of necessary and sufficient conditions." Other scholars by and large defend the Frankfurtian approach (Fallis forthcoming; Hardcastle & Reisch 2006; Meibauer 2013, 2014a, 2016a,b,c). Carson's skepticism is reinforced by three claims. First, bullshitters <u>can</u> be concerned with the truth of what they say (against condition 17*b*). Second, bullshitting does <u>not</u> require the intention to deceive (against condition 17*c*). Third, lying <u>can</u> constitute producing bullshit—that is, bullshitting can overlap with lying.

I focus on the first claim, which is directed against condition 17*b* ("loose concern for the truth"). As an example of an "evasive bullshit reply," Carson (2010, p. 60) presents the following scenario:

(18) Evasive bullshit reply
      Interviewer: I want to ask you about your criteria for nominating people to the US Supreme Court. Would you be willing to nominate anyone who supports the Roe v. Wade decision? Or, will you make opposition to abortion and Roe v. Wade a requirement for anyone you nominate?
      Candidate: Look, there are lots of things to be taken into account when nominating someone for the Supreme Court. This isn't the only relevant consideration. I want someone with a good legal mind and judicial experience who supports my judicial philosophy of following the Constitution as it is written.

According to Carson (2010, p. 60) the candidate gives a "bullshit reply" in that he does not answer the question directly. Yet, according to Carson, the candidate is concerned with the truth of what he says. He wants to make the addressee think that he is answering or trying to answer the question; in this sense, the candidate acts deceptively (Carson 2010, p. 60).

Carson is certainly right in observing that the candidate acts evasively. However, it is not clear whether his answer constitutes bullshit. What he is concerned with is not so much truth (or falsity) but rather how he can avoid a truthful statement. In this sense, the statement does <u>not</u> constitute bullshit, because it does not display <u>indifference</u> to what is true.

In terms of implicature theory, the candidate flouts the Gricean Maxim of Relation because he does not directly answer the interviewer's question. Moreover, he flouts the Gricean Maxim of Manner ("Be perspicuous"), especially two of the Manner submaxims ["Avoid obscurity of expression" and "Be brief (avoid unnecessary prolixity)"]. On the basis of the flouting of these maxims, the interviewer may very well derive the implicature 'I am not willing to answer this question.' Grice (1989a, p. 35) presents a similar case in which "an implicature is achieved by real, as distinct from apparent, violation of the maxim of Relation":

Speaker A: Mrs. X is an old bag.
Speaker B: The weather has been quite delightful this summer.
             Implicature: A's remark should not be discussed.

If bullshitting is a viable pragmatic concept, then it is an empirical task to find out which factors contribute to bullshitting. As in the related case of lying, there may be linguistic cues for bullshitting. In addition, it is important to connect this research to broader concepts of persuasion, manipulation, and propaganda (Coons & Weber 2014, McGinn 2008, Stanley 2015).

5.4. Text and Discourse

We do not know much about the embeddedness of lies in texts or discourses. With the notable exception of a paper by Galasiński (2000) and several studies by Dynel dealing with fictional discourse in the American television show *House* (e.g., Dynel 2016), there is a lack of empirical research. Researchers in the tradition of discourse analysis have to identify attested lies in a stretch of discourse and then identify aspects of the discourse that can be interpreted as having been related to that lie, namely hesitation markers or slips of the tongue. This may be more evident in fictional discourse, wherein actors use such signals as cues for the audience. With respect to theoretical modeling, researchers have used frameworks such as game theory and dynamic semantics (Asher & Lascarides 2013, Stokke 2016). Whether these models can be enriched such that they are useful for the analysis of authentic discourse remains to be determined.

6. FURTHER TOPICS IN THE LINGUISTICS OF LYING

Beyond core linguistics, the linguistics of lying comprises several further fields of research that can be only briefly discussed here. This section touches upon lying and neuroscience, lying and language acquisition, and lying and contexts of use.

6.1. Lying and Neuroscience

From the perspective of neuroscience, the most relevant question is which regions of the brain are activated in the process of lying (Decker et al. forthcoming; Ganis 2015, forthcoming). This activation happens under certain circumstances:

> (i) Deciding to lie [...]; (ii) retrieving or reactivating information from episodic and semantic memory; (iii) maintaining and manipulating relevant retrieved information in working memory [...]; (iv) memory encoding of the response itself in order to be consistent in the future [...]; (v) inhibiting the correspondent honest response [...], as well as other potential deceptive responses; (vi) managing the overall social interaction so as to come across [as] truthful. (Ganis forthcoming)

Research on this topic is often motivated by lie detection purposes (Ambach & Gamer 2014, Granhag et al. 2015). For instance, one seminal design is the Concealed Information Test, which assumes that liars react with an orienting reflex when they become aware of a stimulus that is personally relevant for them (e.g., perceiving a murder weapon). This orienting reflex is then measured by use of either a polygraph or EEG (electroencephalography). However, EEG cannot determine what specific brain regions are activated, as it focuses only on the time course of lying. In this respect, fMRI (functional magnetic resonance imaging) fares better. Components that have been identified on the basis of EEG are the P300, the anterior N2, the late positive potential, and the medial frontal negativity (Ganis forthcoming). Note, however, that these event-related potential components seem not to be "specific for deception processes because they can also be elicited by perceptual and cognitive manipulations that have nothing to do with deception" (Ganis forthcoming). On the basis of meta-analyses of neuroimaging studies, Ganis (forthcoming) concludes that most studies "converge in reporting a cluster of fronto-parietal regions that are more engaged by deceptive than honest response." However, it seems that "most of the regions engaged by deception are also engaged by general-purpose cognitive control processes," such as working memory, task switching, and inhibitory control; therefore, these regions do not seem to be specific for lying and deception (Ganis forthcoming). Note that findings from neuroscience

are not easily related to definitions of lying as developed in the philosophy of language and in linguistics.

6.2. Lying and Language Acquisition

Lying is a skill that has to be acquired (Lee 2013). Before age 2;6, children do not seem to be capable of lying. Moreover, it is unclear whether early utterances that seem to be lies are intentional in the required sense of lying (i.e., are connected to an intention to deceive), or whether they are mere "impulsive false statements," as Talwar (forthcoming) puts it. Most children master some form of lying during their fourth year of age. They acquire an elementary theory of mind (ToM) understanding in this time span. The ToM usually refers to a child's ability to reflect upon the thoughts, imagination, attitudes, and feelings of other actors and to consider them when acting (Miller 2012). The ToM develops in phases that are related to different stages of lying competence. Precursors of the ToM are the imitation of intended actions at the age of 1;6, the distinction between one's own and others' feelings or goals, and the onset of symbolic and fictional play. At the age of 2;0, the child develops the ability to ascribe feelings and wishes to others (independently of his or her own feelings and wishes).

Usually, one distinguishes between first-order beliefs and second-order beliefs. First-order beliefs are related to the understanding that one can have a false belief about reality (appearance–reality distinction) (age 3;6–4;0), whereas second-order beliefs are connected with the understanding that one can have a false belief about the belief of another person (age 6;0). The insight that different perspectives about another person's belief are possible is a late achievement in the development of children and young adults (between the ages of 12;0 and 17;0). There are two prominent methods used in research on lying acquisition, namely the false-belief task and the modified temptation resistance paradigm (Newton et al. 2000).

The false-belief task has been used in studies by Wimmer & Perner (1983, 1985). A typical instance of a false-belief task is the Sally–Anne task. Sally hides a toy in a basket (x) and leaves the room. Anne enters the room, takes the toy out of the basket, and puts it into a box (y). The question is: Where will Sally look when reentering the room—in the basket (x) or in the box (y)? Children aged 2;6 to 3;0 answer that Sally will look in the box (y). From 3;6 to 4;0, children answer (correctly) that Sally will look in the basket (x) because this is where she left the toy. The assumption with regard to the acquisition of lying is that children initially do not grasp the aspect of intentionality; instead, they consider only factual truth or falsity.

In their landmark study, Wimmer & Perner (1983) used the Sally–Anne task for research on the acquisition of lying. Participants were asked to indicate where the protagonist would look upon re-entering. The results were as follows: "None of the 3–4-year old, 57% of the 4–6-year old and 86% of 6–9-year old children pointed correctly to location x in both sketches" (Wimmer & Perner 1983, p. 103). A further question, aiming to determine the stability of the children's belief, was how the children behaved when intending to deceive another person about the location of the toy, or when intending to tell a friend the truth about the location of the toy. In this case, the authors reported: "Independent of age, of those children who correctly thought that the protagonist would search in x, 85% of the time they also correctly thought that he would direct his antagonist to location y and his friend to location x" (Wimmer & Perner 1983, p. 104). This result shows that children are able to relate their representations of another person's belief to successful acts of deception.

According to Talwar (forthcoming), in the modified temptation resistance paradigm, "children are given an opportunity to commit a transgression and are later asked about their behavior." In one study, for instance, they were instructed not to peek at a toy when the experimenter left the room. When the experimenter returned, she asked the children whether they peeked at the toy.

A hidden camera revealed their actual behavior, which was compared with the children's answers. Summarizing findings from earlier research, Talwar (forthcoming) refers to Talwar & Lee (2008), who found "that the majority of children 4 years and older lied about their transgression, while more than half of the 3-year-olds confessed." In addition, "while approximately half of children between 6 and 7 years of age were able to maintain their lies when asked follow-up questions about their behavior, younger children were poor at maintaining their lie and were more likely to reveal verbal cues to their deceit." Thus, in the course of their development, children become better at lying. This ties in with their moral development. Already, 36% of the 3-year-olds tended to lie, and this behavior was evaluated as very bad by most of the 4-year-olds (Talwar & Lee 2008). Later in their moral development, children detect that prosocial lies are different (Talwar et al. 2007). When lying for reasons of politeness or to protect others, the children rate lying as acceptable or even as a welcome social behavior.

Children's actual lying behavior has to do with executive functioning, specifically, controlling one's own lying history within a discourse. Generally, it is difficult for liars not to mix up conflicting alternatives, such as what they have really done or thought vis-à-vis what they said they have done or thought. Thus, higher mental and verbal abilities are needed to accomplish this task, including self-regulation; inhibitory control; planning of discourse; and flexibility of attention, discourse strategies, and working memory. These abilities develop only slowly. From available evidence, Talwar (forthcoming) concludes that "it is the combined effect of both inhibitory control and working memory that predicts successful verbal deception." In addition, there may exist a correlation between higher IQ scores and lying skills.

In the course of lying acquisition, the distinction between lying, mistakes, over- and understatements, and ironies is hard to grasp for most children. How these concepts unfold and are distinguished from one another is not well understood. This is also true for concepts such as the deceptive implicature, the bald-faced lie, and bullshit. Leekam (1991) found that, by the age of 6, children are able to discriminate lies and jokes. Before 6 years of age, many children mistake irony for lying. Zufferey (2015, p. 111) assumes that the discrimination of lying and irony has to do with second-order ToM abilities.

6.3. Lying and Contexts of Use

We do not much know about the contexts in which lies typically occur. In this section, I consider the contexts in which prosocial lies may occur and contexts that have been studied from the point of view of cross-cultural pragmatics. Moreover, I discuss standard situations of lying in jurisprudence.

The decision to tell the truth or to lie is a pragmatic decision. This is easy to see when we look at prosocial lies that occur quite frequently in everyday conversation. For instance, when I get a gift that I do not appreciate, I have the choice between telling the truth (*Sorry, I don't like this present*) or telling an outright lie (*Thank you so much, it's great*). In many cultures—and this is forgotten when lying is judged as bad across the board—the latter option is the preferred one. This has to do with politeness and impoliteness, which are pragmatic strategies aiming to save or cause someone to lose face (Goffmann 1967; Leech 2014, pp. 24–27). Typically, one draws a distinction between negative face ("the want of every 'competent adult member' that his actions be unimpeded by others") and positive face ("the want of every member that his wants be desirable to at least some others") (Brown & Levinson 1987, p. 62). Bok (1999, p. 58) surveys cases of more or less prosocial lying, such as white lies ("falsehood, not meant to injure anyone, and of little moral import"), excuses, justification, lies in a crisis, lies to liars and enemies, lies protecting peers and clients, lies for the public good, lies in deceptive social science research, paternalistic lies, and lies to the sick and dying. Although this taxonomy provides insight into standard situations of

prosocial lying as discussed in the literature, Bok's approach lacks a more general framework that can be used for explaining everyday prosocial lying. Modern approaches to prosocial lying connect the aspect of politeness to the notion of benefiting; in other words, lying is always connected to a payoff (Borsellino 2013, Chen 2001, Chen et al. 2013, Erat & Gneezy 2012, Hornung 2016, Levine & Schweitzer 2014). In antisocial (mendacious) lying, only the speaker profits from lying. In prosocial lying, lying is either altruistic (only the hearer profits from the speaker's lie) or polite ("Pareto-white," as Erat & Gneezy 2012 call it) in the sense that both speaker and hearer profit from the lie.

In business and trade, lying and deception play an important role. Thus, in an intercultural context (e.g., business negotiations between Japanese and Americans), a pertinent question is whether there are cultural differences with respect to lying. In particular, (Eastern) collectivist versus (Western) individualist cultures come under scrutiny. As Seiter et al. (2002, p. 161) explain, "members from individualistic cultures tend to seek private goals and put their personal interests above group interests[;] members from collectivistic cultures put the interests of the group over those of the individual."

There are two main strands of research. First, the study design by Coleman & Kay (1981) has been transferred to a number of cultures so that a comparison between those cultures becomes possible (Chen et al. 2013, Cole 1996, Hardin 2010). There is some variation indeed, but it is nevertheless unclear to which extent these studies are representative for the cultures studied. Second, some research focuses on the validity of Grice's apparatus in cross-cultural contexts (Danziger 2010, Lapinski & Levine 2000). Whereas Lapinski & Levine (2000) found that the Maxim of Quality was important even in a cross-cultural dimension, Danziger (2010) proposed that the Maxim of Quality would have to be adapted to reflect her findings with Mopan Maya speakers. This raises an interesting question concerning whether Gricean maxims are universally valid, or to what extent there are culturally different maxims (see Meibauer 2017, Vincent Marelli 2004).

7. CONCLUDING REMARKS

Research on lying can contribute to several fields of linguistic study. Considering theoretical linguistics, such research may shed new light on current debates of the semantics–pragmatics divide. For instance, one can ask whether it is possible to lie while using explicatures (or implicatures) and expressive language (Meibauer 2014a). Moreover, one may design a lying test in order to produce semantic data (Michaelson 2016). With respect to empirical linguistics, which is steadily informed by the many results in neuro- and psycholinguistics, experimental semantics and pragmatics will yield more fine-grained evaluations of lying and deception. Finally, applied linguistics will profit from this research in several ways, ranging from therapy for pragmatic impairment to language and the law to the study of persuasion and propaganda. Certainly, the linguistics of lying will support all these undertakings.

DISCLOSURE STATEMENT

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