Mechanisms of linguistic bias: How words reflect and maintain stereotypic expectancies.

Camiel J. Beukeboom

VU University Amsterdam

Corresponding author:

Dr. Camiel J. Beukeboom

Department of Communication Science

VU University Amsterdam

De Boelelaan 1081, 1081 HV Amsterdam.

The Netherlands

e-mail: c.j.beukeboom@vu.nl

Phone: +31 (0) 20 598 8762

Fax: +31 (0) 20 598 6820

Introduction

Stereotypes about people are widespread and play a crucial role in social perception and interaction. An important question is how stereotypic expectancies about social categories are transmitted and maintained interpersonally. Although stereotypes and prejudice may be shared explicitly (e.g., blatant racist speech, Leets & Giles, 1997; derogatory group labels like *nigger, fag* Simon & Greenberg, 1996), most people disapprove of the explicit expression of stereotypes and especially racism (Castelli, Vanzetto, Sherman, Arcuri, 2001; Monteith, 1993), and it appears that stereotypes are predominantly shared at a largely implicit level. Research on linguistic bias has revealed a number of implicit linguistic variations that play a crucial role in this process (Maass, 1999; Wigboldus & Douglas, 2007).

Theory on stereotypes and language use presumes a close connection and dialectic interplay between cognition and language use (Holtgraves & Kashima, 2008; Semin, 2011; Wigboldus & Douglas, 2007). One the one hand, language use can be considered a product of social cognitive activities related to stereotypes. Assuming that people choose those linguistic devices that are suitable for their current purposes, a sender's stereotypic expectancies will be reflected in language use. On the other hand, language may exercise an influence on social cognitive processes of both recipients and senders. The language used to communicate stereotypic information elicits specific cognitive inferences in recipients, which causes stereotypic expectancies to be transmitted interpersonally. Moreover, the linguistic choices of a sender may reverberate on the sender by reconfirming and strengthening existing stereotypes.

In this chapter I review, and aim to integrate, the knowledge about a number of different ways in which prejudice and stereotypic beliefs surface in subtle variations in language use. I will first focus on the different linguistic biases research has revealed, and on the effects these biased messages have for recipients, the sender, and the collective. Subsequently, I will

discuss potential underlying mechanisms that these biases (may) have in common, and explore future areas of research.

Evidence for linguistic bias: Systematic variations in language use

The area of language use in relation to social stereotypes deals specifically with language used when describing people and their behavior. Stereotypic beliefs about the targets of these descriptions surface in subtle linguistic biases. A linguistic bias can be defined as a systematic asymmetry in word choice as a function of the social category to which the target belongs. A distinction can be made between research on the use of category labels to refer to social groups and individuals belonging to different social categories, and language used to describe their behavior.

Category labels

The labels that are used to refer to (members of) social categories form one area of language use that subtly reveals a senders stereotypic expectancies. Research on sexist language, for instance, is concerned with asymmetries in references to female and male persons. In such references a systematic bias in markedness has been observed, wherein expectancy inconsistent individuals are more explicitly marked (Stahlberg et al, 2007; Romaine, 2001). Specifically, when referring to female and male person who are in a role or occupation that is inconsistent with the stereotypically expected role for his or her gender, people tend to add an explicit mention of the person's sex (e.g., female surgeon, lady doctor, male nurse), where this does not occur when the person's sex fits the respective gender role.

The tendency to explicitly mark unexpected gender roles appears to even be reflected in lexical gaps, whereby terms exists for one of the sexes, but not for the other. In these cases terms for stereotypically unexpected gender roles exist in the lexicon, where a term for the

expected gender is lacking (Stahlberg et al, 2007). For instance, the male term "family man" exists, but a female equivalent is lacking. The label "career woman", in contrast, has no male equivalent. This appears to reflect the stereotypic belief that taking care of the family is unexpected for men, but self-evident for women. Having a career, in contrast, is unexpected for women, but expected for men (Romaine, 2001). Thus, the unexpected roles are worth mentioning and are marked. Their equivalent expressions "family woman", or "career man" would refer to stereotypically expected and obvious situations, apparently making these terms redundant.

A comparable asymmetry has been found in the use of more narrow labels for individuals who do not fit the general expectations of their social category. Individuals showing behavior that violates the general stereotype are referred to with labels that create a subcategory or subtype for the unexpected group. For example, with labels like "a nice Moroccan", "a tough woman" or "African-American business man", exceptions to the rule are placed in a new category that is narrower than the broad group; in these examples, Moroccans, women, business men (Devine & Baker, 1991). When the individual fits with the general expectations of their social category the general term is used.

Another systematic variation pertains the use of nouns (e.g., an athlete) compared to adjectives (e.g., athletic) to describe a person (Carnaghi et al., (2008). Although Carnaghi et al., (2008) did not explicitly test the link with stereotypes, their findings strongly suggest that the choice for a noun or adjective when referring to a person, may result from stereotypic expectancies. Nouns and adjectives can be exceedingly similar (e.g. being German vs. a German, or being Jewish vs. a Jew). Nevertheless, Carnaghi et al., (2008, Study 6) showed that the use of nouns (compared to adjectives) increased when participants believed that a described characteristic resulted from a stable genetically determined aspect of the target (increased essentialism), rather than a transient property that is under the influence of

environmental factors. Based on these findings the authors suggested that senders would be more likely to use nouns to communicate stable stereotypic beliefs about a target rather than adjectives. This means that when a person's characteristics are highly consistent with the stereotypic expectancies of a social category he or she may be more likely referred to with a noun (e.g., Paul is a homosexual) than an adjective (e.g., Paul is homosexual), because nouns better reflect the belief that it is an enduring and essentialist aspect of the person's personality.

In the above variations of referential terms senders reveal their stereotypic expectancies about the targets and communicate these to recipients. Moreover, these processes are argued to functionally help people to defend and maintain their stereotypic knowledge (Devine & Baker, 1991). By specifically marking and mentioning the unexpected (e.g., lady doctor, family man) and by creating subtypes, inconsistent information is compartmentalized, allowing the general rule to remain inviolate. A label like "a nice Moroccan" creates a narrow subtype that allows for the maintenance of a more general belief that *most* Moroccans are not nice. Information that fits the general expectation, in contrast, is unmarked or described with a general category label (e.g., noun, being *a* Moroccan).

Descriptions of behaviors

The previous section showed how stereotypic expectancies are reflected in the labels used to refer to individuals. Comparable linguistic biases have been observed in the words that are used to describe others' behaviors. A large part of the research on this topic followed from the Linguistic Category Model (Semin & Fiedler, 1988, 1992; Semin, 2011; Wigboldus & Douglas, 2007 for an overview).

The LCM distinguishes four different types of word categories that vary on a concrete-abstract dimension. Descriptive action verbs are the most concrete terms and are used to convey a description of a single, observable action and preserve perceptual features of the

event (e.g., 'A punches B'). Similarly, the second category (interpretive- and state action verbs) describes specific observable events. However, these verbs are more abstract in that they refer to a general class of behaviors and do not preserve the perceptual features of an action (e.g., 'A hurts B'). The third category (state verbs) typically describes an unobservable emotional state and not a specific event (e.g., 'A hates B'). Finally, adjectives (e.g., 'A is aggressive') constitute the most abstract category. Adjectives, (i.e., traits) are highly general descriptions of behavior, providing a global summary of a large number of specific actions. These describe only the subject, show no reference to context or to specific acts and thus generalize across specific events and objects (e.g., Semin & Fiedler, 1988; Semin & Greenslade, 1985). Consequently, relative to concrete descriptions, abstract descriptions give more information about the stable dispositional qualities of the actor and less about the specific situation or context in which the actor finds himself (Maass et al., 1989, Semin & Fiedler, 1988, 1992).

The LCM formed the basis for a first and major contribution to the linguistic mechanism underlying the communication of stereotypes; the linguistic intergroup bias (LIB; Maass, Salvi, Arcuri & Semin, 1989). The LIB refers to the hypothesis that desirable behaviors of ingroup members and undesirable behaviors of outgroup members are described at a relatively high level of language abstraction (e.g., "the ingroup member is helpful"; "the outgroup member is aggressive"). In the opposite situations, that is, an *out*group member showing desirable behavior and an *in*group member showing undesirable behavior, relatively low levels of language abstraction are used (e.g., "the ingroup member hits somebody"; "the outgroup member opens the door for someone"; Maass et al., 1989). Both concrete and more abstract descriptions appropriately describe the given behavior. However, because the different LCM categories elicit different cognitive inferences, the implicit meaning that is communicated varies as a function of level of abstraction. By describing desirable behavior of

ingroup members and undesirable behavior of outgroup members abstractly, these behaviors are portrayed as stable and highly diagnostic traits. Undesirable behavior of ingroup members and desirable behavior of outgroup members, in contrast, are portrayed as exceptions to the rule.

Research on the LIB (Maass, Ceccarelli & Rudin, 1996; Maass, Milesi, Zabbini & Stahlberg, 1995) demonstrated that these subtle differences in formulation provide a means to manage one's group and self-image. That is, one predictor of the LIB is a motivational tendency to protect one's social identity, and the LIB is therefore more strongly observed in situations in which the ingroup identity is threatened (Maass et al. 1996). However, the LIB mechanism is also been shown to operate outside an intergroup context and to result from general expectancies (Maass et al. 1995). Given that expected behavior is considered to be more stable, diagnostic and typical than unexpected behavior it is more appropriately described with abstract terms. Maass et al., (1995) demonstrated that, aside from ingroup protective motives, a differential expectancy is sufficient to give rise to the LIB. Following up on this idea, Wigboldus, Semin and Spears (2000) demonstrated that stereotypic expectancies give rise to difference in language abstraction, and termed this phenomenon the Linguistic Expectancy Bias (LEB).

The LEB shows that people tend to use more concrete, descriptive language when describing behavior that violates stereotypic expectancies, whereas they use more abstract language when the same behavior is consistent with stereotypic expectancies (Wigboldus et al., 2000). For example, when describing a man demonstrating behavior that is inconsistent with the male stereotype (e.g., crying), people use relatively concrete language (e.g., he has tears in his eyes). In contrast, when describing a woman demonstrating the same behavior, people tend to use more abstract language to describe this stereotype consistent event (e.g., she is emotional; Wigboldus et al., 2000).

Another linguistic bias focusing on behavior descriptions is the Stereotypic Explanatory Bias (SEB; Sekaquaptewa et al., 2003). SEB pertains to the tendency to provide relatively more explanations in descriptions of stereotype inconsistent, compared to consistent behavior. For example, when a sender has a prejudiced belief that Black individuals are unintelligent, learning that a Black individual received an A on a test, instigates explanatory processing which is reflected in an explanation to make sense of the incongruity ("… because it was an easy test"). Sekaquaptewa et al., (2003) assessed SEB by presenting participants with a series of sentence beginnings, containing Black stereotype-consistent behaviors (e.g., easily made the team) and Black stereotype-inconsistent behaviors (e.g., got a job at Microsoft). These behaviors were paired with African-American (e.g., Marcellus, Lakisha) and White names (e.g., Adam, Deborah). The tendency to engage in SEB was shown to be related to prejudiced behavior against Blacks (Sekaquaptewa et al., 2003). The more external, situational explanations White participants provided to explain stereotype inconsistent behavior of Black individuals (e.g., Marcellus got a job at Microsoft, because he knew someone there) the more negative behavior they showed towards a Black partner in an interracial interaction.

A recent extension to the linguistic bias literature pertains the use of negations. The Negation Bias (NB; Beukeboom, Finkenauer and Wigboldus, 2010) entails that the use of negations (e.g., *not stupid*, rather than *smart*) is more pronounced in descriptions of stereotype inconsistent than in descriptions of stereotype consistent behaviours. For example, if a sender's stereotypic expectancy dictates that garbage men are stupid, but a particular garbage man violates this expectancy by showing highly intelligent behavior, the sender is likely to reveal his prior expectancy by using a negation like *The garbage man was not stupid*. In contrast, for stereotype consistent behavior (e.g., The garbage man was stupid; The professor was smart), the use of negations is less likely.

In sum, the different linguistic biases described above demonstrate that people reveal their stereotypic expectancies in a number of ways in the words they choose to refer to -, and describe the behavior of people belonging to different social categories (see Figure 1). When looking at the reviewed linguistic biases a generally pattern seems to emerge. That is, stereotype inconsistent information is in general described with relatively more narrow, specific or concrete terms than stereotype consistent information. This is shown in the increased markedness and subtyping in reference to stereotype inconsistent individuals, and it is also the case for the LIB and LEB. Likewise, the situational explanations in descriptions of stereotype inconsistent events (SEB; Sekaquaptewa et al., 2003) likewise provide a more concrete and situated account compared to when an explanation is omitted. The use of adjectives vs. nouns and negations vs. affirmations (NB) at first sight do not appear to fit in this general pattern. However, when looking at the cognitive inferences that the different linguistic devices induce, this general pattern becomes clearer. In the next section I will focus more closely on the effects of these linguistic biases.

Effects of linguistic bias

The previous section showed that stereotypic expectancies of senders surface in a number of subtle variations in language use. The significance of these linguistic biases in descriptions of others lies in the fact that they implicitly communicate these stereotypes to message recipients, and thereby contribute to the transmission and maintenance of socially shared stereotypes. These effects occur mainly by influencing the cognitive inferences of recipients of biased messages, but may also affect the sender, and the collective (Holtgraves & Kashima, 2008). Importantly, the inferences that are drawn from biased descriptions tend to be consistent with the stereotypic expectancies of the sender who produced the description

(Maass et al., 1989; Wigboldus et al., 2000). The pattern of inferences is stereotype

confirming and consequently maintains the stereotypic view about the described actor.

Figure 1. *Overview of different linguistic biases, and the cognitive inferences they induce.*

Target of description	Linguistic bias	Cognitive inferences (sender and recipient)
Stereotype consistent person, or behavior	Unmarked reference Noun label* broad adjective* abstract language (LIB, LEB) no explanation (SEB) affirmation (NB)	Dispositional attributions; informative about person, high enduringness, high stability and repetition likelihood. *(less falsifiable/ verifiable, inhibition of alternative classifications and counterstereotypic inferences)*
Stereotype inconsistent person, or behavior	marked reference (subtype) adjective label* narrow adjective* concrete language (LIB, LEB) explanation (SEB) negation (NB)	Situational attributions informative about specific situation, low enduringness, low stability, low repetition likelihood.

Note. LIB / LEB = Linguistic intergroup / expectancy bias, SEB = Stereotypic explanatory bias, NB = Negation bias. *Not empirically demonstrated with respect to stereotypes.

Recipient inferences

The type of term that is used to refer to a person clearly has a strong effect on the

impressions that recipients form about this person. Verbal category labels activate categorical

representations containing additional information that an observed target itself does not

convey. Derogatory group labels (e.g., fag, nigger) activate a different more negative

representation, than more neutral labels (e.g., gay, afro-american; Carnaghi & Maass, 2007).

Where recipients may intentionally regulate negative reactions to such explicit derogatory

ethnic label (e.g., nigger) as a result of preexisting attitudes and egalitarian social norms

(Simon & Greenberg, 1996), these corrections are unlikely when prejudice and stereotypic

expectancies surface in subtle implicit biases as the one's reviewed above. Consequently, very subtle and seemingly harmless differences in labels can exert significant effects on the impressions that recipients draw.

A recent study (Foroni, & Rothbart, 2011) showed that observers who estimated the weight of a person are influenced by the labels presented with the targets, even when these labels are self generated. Participants judged visual line drawings of body types (silhouettes) that were presented either without labels, with weak category labels (below-average; average; above average) or with strong labels (anorexic; normal; obese). By looking at the judged similarity and the estimated weight of body types, it was shown that the presence of a label reduced perceived differences between members of the same category (assimilation), while exaggerating the differences between members of different categories (contrast). These categorization effects were stronger for strong labels, but even weak labels showed significant differences compared to unlabelled conditions.

These findings are largely in line with the previously described difference between a noun (that would constitute a strong label) and adjectives (Carnaghi et al., 2008). This research showed that nouns (e.g. being a Jew), have a more powerful impact on impression formation compared to adjectives (e.g. being Jewish). Compared to adjectives, nouns more strongly induce stereotype congruent inferences about the target (e.g., always goes to the Synagogue), and simultaneously inhibit countersterotypical inferences (e.g., always goes to church). Furthermore, nouns inhibit alternative classifications. When a person is first described with a noun (e.g., an athlete) rather than an adjective (e.g., athletic), recipients are less likely to categorize the person in alternative categories (e.g., an artist; Carnaghi et al., 2008). Moreover, nouns, induce stronger essentialist attributions. When an individual is described with a noun, the relevant characteristic is seen as a more profound and unchangeable behavior tendency. In line with the increased essentialism, it was shown that

from nouns recipients infer a higher informativeness about the person, a higher enduringness of the relevant characteristic, and a higher likelihood that the person will be like this in the future (Carnaghi et al., 2008).

It seems likely that labels used to refer to stereotype *in*consistent individuals (i.e., marked and subtyped reference; African-American business man, lady doctor) function as relatively weak labels, as compared to nouns, and unmarked labels. It appears then that labels that are presumably used in reference to stereotype consistent individuals: induce recipients to more strongly categorize the individual, more strongly activate the associated stereotypic expectancies with the category, and to infer that the characteristic is more essentialist, profound and enduring. Labels used to refer to stereotype *in*consistent individuals, in contrast induce weaker categorization and lower inferred essentialism in recipients.

The inferences that recipients draw from biased behavior descriptions (LIB and LEB) show a comparable pattern. It has consistently been shown that the relatively concrete language that is used in stereotype inconsistent messages causes recipients to infer that the behavior is unexpected, is an exception to the rule, and that it is more likely caused by situational circumstances than by dispositional factors. In contrast, the more abstract language used in stereotype consistent messages implies that the behavior is expected, is more likely caused by the actor's stable dispositional characteristics than by situational circumstances, and that there is a greater likelihood that the described characteristics generalize across situations (Maass et al., 1989; Wigboldus et al., 2000). This pattern of inferences suggests that higher abstraction implies greater essentialism.

Although recipient inferences to descriptions containing explanations (SEB; ; Sekaquaptewa et al., 2003) have to my knowledge not been specifically tested, it seems apparent that they induce lower dispositional and essentialist inferences. That is, the explanations people tend to give for stereotype inconsistent behavior provide an external

situational attribution, which by definition suggest it is a transient behavior caused by situational rather than stable dispositional factors.

A similar pattern is observed with respect to the negation bias (NB; Beukeboom, Finkenauer and Wigboldus, 2010). It was shown that negations (e.g., not bad, not stupid), as compared to affirmations (e.g., good, smart), induce lower dispositional than situational attribution in recipients, and a lower repetition likelihood. Recipients also inferred from negations that the sender had an opposite prior expectancy. Thus again, the language used to describe stereotype inconsistent behavior implies reduced essentialism for the target.

With respect to negations two additional effects can be mentioned. First, when a negation instead of an affirmative antonym is used in a description of stereotype inconsistent behavior (e.g., the professor is not smart) stereotype consistent concepts are introduced to the discourse. Research suggests that negations make associations with the negated concept more accessible, and consequently make the exact opposite of the message content more accessible in recipients (Giora et al., 2007; Grant, Malaviya, & Sternthal, 2004; Mayo, Schul, & Burnstein, 2004). Thus when negations are used to describe stereotype inconsistent behavior (e.g., the garbage man not stupid) stereotype consistent concepts are activated, thereby reinforcing these associations in a recipient. Second, by introducing information via negation, senders convey a mitigated, more neutral version of the described event (see Frankel & Schul, 2008; Giora, Fein et al., 2005). When the intelligent behaviour of a garbage man is described as "not stupid" this conveys a less positive, more neutral meaning than the positive behavior allows. This means that by means of negations, senders can also share a negative (or positive) prior expectancies with recipients.

In sum, the different linguistic biases are comparable in the pattern of inferences they induce (see Figure 1). Importantly, the induced inferences are congruent with the stereotypic expectancies that induce the biased word choice in the first place. Senders choose other

linguistic devices to describe stereotype consistent versus inconsistent behaviors and actors. By means of these linguistic devised senders reveal and activate their stereotypic beliefs in recipients.

Effects on the sender

Although this has not been studied extensively, based on other research it seems likely that biased language use also has a stereotype confirming effect on the sender. The influence of verbal communication on subsequent cognition of the sender is well established. The classic demonstration probably being the *saying is believing* effect (Higgins & Rholes, 1978), which shows that communicators end up believing and remembering what they said rather than what they originally learned about a target. Subsequent research has confirmed that people's mental representations of an experience can be profoundly shaped by how they verbally describe it (see McCann & Higgins, 1990, for a review Marsh, 2007).

In the context of linguistic bias research by Karpinski and Von Hippel (1996) is particularly relevant. They studied how the LEB helps people maintain their expectancies in the face of incongruency. In their experiments they manipulated an initial expectancy (positive vs negative) of a target person Scott. Subsequently, participants were provided with instances of positive and negative behaviors of Scott. For each behavior they rated how well four descriptions, corresponding with the four increasing levels of abstraction of the LCM, described the behavior. Before and after the LEB target liking was measured, the difference between these two measures constituted a measure of expectancy maintenance. Their results replicated the LEB effect, expectancy congruent behaviors were described more abstractly than expectancy incongruent behaviors. More importantly, however, the extent to which participants displayed the LEB was predictive of expectancy maintenance.

Thus, people not only communicate information to others in a subtly biased fashion, they also explain it to themselves in a biased manner, with the effect that existing

expectancies are maintained. This effect was especially the case for behaviors of moderate valence. When behaviors were extreme, this subtle device seemed not to be strong enough to compensate for the inconsistency of the behavior (Karpinski & Von Hippel, 1996). It seems likely that similar processes play a role with respect to the other biases. The act of verbalizing a stereotypic expectancy in language, albeit in a subtle bias, may strengthen existing associations and stereotypes in the sender. The sender is, just as a recipient prone to activate stereotype confirming inferences.

Collective effects

Moreover, the social cognitive implications of biased language use go beyond the senders' and recipients' individual cognitions (Holtgraves & Kashima, 2008). People usually talk about other people and their behavior in interpersonal conversations. In such conversations conversation partners create a shared view in a dynamic collaborative process. Recent research (Echterhoff et al., 2005, Kopietz, et al., 2010) has demonstrated that the saying-is-believing effect (Higgins & Rholes, 1978) mainly occurs to the extent that communicators create a shared reality with their audience about a target person. Thus, the acceptance of a recipient is important. When sender and recipient mutually recognize that they have reached understanding (grounded an utterance, Clark, 1996) a collective representation is created (i.e., common ground, shared reality, Hardin & Higgins, 1996). Kashima et al., (2010) showed that the act of communicating about characteristics of a novel social category induced stronger dispositional attributions, and stronger beliefs that this was an immutable essence of the category. This increased essentialism occurred especially when the senders' descriptions were elaborately grounded (i.e., accepted by the conversation partner).

In sum, the above mechanisms reveal how stereotype consistent and inconsistent information is confirmed and strengthened through linguistic biases. It explains how

stereotypical views are perpetuated, even when stereotype inconsistent behavior is being

described. It clarifies, and is consistent with, research showing that stereotypes are difficult to

disconfirm and are resistant to change (Biernat & Ma, 2005; Rothbart & Park, 1986).

<div align="center">Underlying mechanisms of linguistic bias</div>

Most research on potential underlying mechanisms of the above described linguistic

biases has been done with respect to the LIB and LEB. Maass et al (1995) distinguished two

independent mechanisms that give rise to the Linguistic intergroup bias. One based on

implicit cognitive associations and expectancies, and one based on motivational or strategic

language use (Wigboldus & Douglas, 2007). Although these mechanisms are linked to the

LIB and LEB, it is plausible that both mechanisms are in operation to produce the other

linguistic bias effects. I will first elaborate on these initially proposed mechanisms and

subsequently propose a third mechanism.

Spontaneous reflection of cognitive expectancies

This first mechanism pertains to the idea that linguistic biases are the result of

intrapersonal cognitive processes. The words that people choose when describing the behavior

of individuals belonging to different social categories unintentionally reflect existing

associations and expectancies. In studies on the underlying mechanisms of the LIB, Maass et

al., (1995) and Maas et al., (1996) demonstrated that expectancy consistent behaviors based

on stereotypes about Northern and Southern Italians are described at a higher level of

abstraction than expectancy inconsistent behavior. This effect was shown to be independent of

the desirability of behavior and the in- vs out-group membership of the participant. As

described above, further research confirmed this mechanism in research on the LEB

(Karpinski & Von Hippel, 1996; Wigboldus, Semin & Spears, 2000).

An important point is that the effects of stereotype expectancies seem to emerge at the encoding stage (Douglas & Wigboldus, 2007). That is, when people are confronted with a behavioral event, stereotype consistent and inconsistent is stored differently, and these encoded differences in cognitive representation are subsequently reflected in language use. This was nicely demonstrated by Wenneker, Wigboldus & Spears, (2005) who manipulated relevant stereotypic expectancies about a target person either before or after providing participants with a description of a behavioral event. Thus, the behavioral information was either processed with or without knowing to which social category the actor belonged. Although both groups were provided with the same information before they started writing about the behavior of the target, the information that was available during encoding affected the occurrence of a LEB effect. Only when participants processed the behavioral information with a stereotypic category of the actor in mind, the LEB was observed. When this was not the case, the information was not encoded in a biased way, and no LEB effect was observed. This suggests that stereotype consistent information is stored at a more abstract level than stereotype inconsistent information, and these differences in representation are reflected in language use when the information is retrieved for communication (Douglas & Wigboldus, 2007).

Likewise, the negation bias (Beukeboom, Finkenauer & Wigboldus, 2010) is argued to result from existing stereotypic associations. The stereotype literature suggests that, upon perceiving (or reading about) the behavior of an actor, people automatically activate the mental representations associated with the person or the social category to which the person belongs (Devine, 1989; Fiske, 1998; Lepore & Brown, 1997). For example, the category label professor activates stereotype consistent trait terms such as *smart* and inhibits stereotype inconsistent trait terms such as *stupid* (Dijksterhuis & Van Knippenberg, 1996). One result of this is that the activation of a social category should make the use of terms that are stereotype

consistent with this category more probable in descriptions of category members. In a similar vein, because of the decreased accessibility of stereotype inconsistent terms, their use will be less likely in these descriptions. Due to these differences in accessibility, the description of the unexpected dim behavior of a professor is relatively likely to contain a negation (e.g., The professor is not smart), whereas the same behavior is more likely described with an affirmation when it is consistent with expectations (e.g., the garbage man is stupid).

Research suggests that the reflection of stereotypic beliefs in language use typically occurs unintentionally and operates outside of people's awareness (Franco & Maass, 1996, 1999). That is, the effects of stereotypic expectations on linguistic choices appear to be difficult to inhibit (Franco & Maass, 1996) and the LIB and LEB are related to implicit measures of prejudice (e.g., von Hippel, Sekaquaptewa, & Vargas, 1997). The same goes for the stereotypic explanatory bias that has been used as an implicit measure predicting behavior in interracial interactions (Sekaquaptewa et al, 2003). It seems reasonable to assume that the choice for a noun or adjective (Carnaghi et al., 2008), and markedness in reference occurs largely outside a senders awareness, and that these choice results from implicit cognitive processes. When a person's characteristics are encoded as consistent with an activated stereotype, the person will subsequently be more likely referred to using a noun and unmarked reference.

Notably, the intra personal processes that give rise to biased language use appear to be driven by a fundamental need to maintain existing beliefs. When people are confronted with inconsistencies they attempt to defend and maintain their stereotypic knowledge, and adopt a variety of cognitive strategies that allow them to keep the general stereotype inviolate (e.g., Kunda & Oleson, 1997; Yzerbyt, Coul & Rocher, 1999; Zoe & Hewstone, 2001). It appears that exactly these cognitive strategies are reflected in linguistic biases. When people are confronted with stereotype inconsistent events they tend to (a) compartmentalize (i.e.,

marking, subtyping), (b) to perceive it as a transient property that is under the influence of situational factors rather than stable dispositional factors (LIB, LEB, NB), (c) to explain the inconsistency (SEB), (d) to mitigate the valence of the event, and simultaneously connect it to concepts that fit the stereotype (NB). In contrast, consistent information is processed such that it allows one to reconfirm existing stereotypes, (e) by using strong category labels (nouns) and more abstract language (LIB, LEB) implying stability and essentialism.

Communication goals and strategic language use

The second mechanism that has been proposed to give rise to linguistic bias is motivational in nature. Utterances obviously do not merely express privately held beliefs, they are tailored to suit communication goals (Higgins, 1992). Senders may want to achieve something in a recipient (e.g., persuade, derogate, ingratiate), and they need to take into account the recipient's level of understanding and acceptance (Clark & Brennan, 1991; Clark & Krych, 2004; Clark & Wilkes-Gibbs, 1986; Krauss & Fussell, 1991). Thus, when formulating an utterance people adapt their language on the basis of what they intend or need to achieve interpersonally, in a recipient.

Research on the LIB demonstrated that the different use of predicates of different abstraction may be driven by a motivation to protect one's social identity (Maass et al., 1995; Maas et al., 1996; Wigboldus & Douglas, 2007). It was demonstrated that the LIB was more pronounced in intergroup settings wherein the ingroup was threatened (e.g., by introducing hostility between Northern and Southern Italians). By using abstract language desirable behaviors of ingroup members are portrayed as highly diagnostic and stable traits, by using concrete language undesirable behaviors of ingroup members are portrayed as exceptions to the rule. For outgroup members this is reversed (Maas et al., 1996). Although it is not entirely clear whether these effects results from an interpersonal communicative motivation to

convince a recipient or a senders attempt to convince oneself of one's positive identity, they do show the importance of goals as a factor.

Other research confirmed that motivational factors and interpersonal communication goals have an important effect on linguistic bias. Douglas and Sutton (2003) for instance showed that activated communication goals (e.g., to aggrandize or derogate a target person) have a strong effect on the use of language abstraction. When someone has the explicit intent to favorably portray a person, he or she adopts abstract predicates to describe positive behaviors and concrete predicates to describe negative behaviors. Such motivations to portray a person or social group in a positive or negative light may result from one's social role. For instance, prosecution and defense attorneys have been shown to strategically adopt different levels of abstraction to imply guilt and innocence of defendants (Schmid & Fiedler, 1998, Schmid et al., 1996).

Likewise, negations may be used strategically. That is, one is likely to use a negation when one wants to change a (assumed) recipient's view about a target (e.g., I am not stupid!). One may also use negations to mitigate the valence of a description (Giora et al. 2007; Fraenkel & Schul, 2008) and thus to strategically describe someone's behavior in a more neutral (as compared to either plainly positive or negative) manner. That is, to say that someone is "not smart" (compared to stupid) yields a weaker face threat and is more polite (Brown & Levinson, 1987).

In sum, the above described mechanisms suggest that linguistic biases may result from implicit cognitive processes arising from existing stereotypic expectancies, or from interpersonal goals to portray a target in a particular way. These mechanisms, at least with respect to the LIB and LEB, have been shown to operate independently of each other (Maass et al., 1995; Maass et al., 1996; Wigboldus & Douglas1997), although communication goals

tend to largely overrule the effects of existing expectancies (Douglas & Sutton, 2003). Based on other literature a third mechanism is proposed.

Interpersonal context and interactive processes

A third mechanism that likely determines biased message formulations arises from the interpersonal context and the interaction between individuals. As described above, in interactions conversation partners create a shared reality in a dynamic collaborative process (Hardin & Higgins, 1996). Senders tend to adapt their messages to what they think is the view of the recipient, and this influences the sender's cognitive representation (e.g., saying is believing effect, Higgins & Rholes, 1978). Senders can therefore be expected to tune their formulations to what they assume are the stereotypic expectancies of a recipient.

Carnaghi and Yzerbyt (2006, 2007) showed that participants showed stronger subtyping of a target person (i.e., a stereotype inconsistent gay person was perceived as more atypical of the category of gay men) when they anticipated to communicate their impression to an audience they thought had an opposing stereotype. Although this study did not focus on the actual formulation of messages it suggests that senders tune their cognitive processes towards preserving the stereotype they perceive in the audience. Biased language use may thus even arise in unprejudiced senders when they communicate to (assumed) prejudiced recipients.

Other research is in line with the notion that the characteristics of recipients determine whether linguistic biases occur. First, the communicative context may determine whether relevant stereotypes are activated. Wigboldus, Spears & Semin (2005) argued that in an intragroup context (e.g., when males talk to males about males, or when females talk to females about females) a target's category membership (e.g., gender) is less likely to become salient. Consequently, stereotypic expectancies with this category are not activated, thus rendering it unlikely that linguistic biases occur. In an intergroup context, however (i.e., when

either the target or the recipient is an outgroup member), a required category activation is

more likely, and linguistic bias is expected. Although their experiments did not include

stereotype activation measures, the pattern of results appeared to confirm this explanation.

Only when the target, the recipient (or both) were from a distinctly different category than the

sender a LEB was observed (Wigboldus, Spears & Semin, 2005).

Another important effect of the communicative context, that might also have played a

role in Wigboldus et al.'s (2005) experiments, is the existence or absence of common ground

between sender and recipient. Fiedler, Bleumke, Friese & Hofmann (2003) argued that the

LEB effect is mainly expected in situations in which common ground between sender and

recipient exists. In these cases a sender simply *reports* about a behavioral event of a target to a

recipient who is also knowledgeable of existing stereotypes. When common ground is

lacking, however, and the recipient has a discrepant attitude or expectancy about a target than

the sender, the sender may want to explain, teach, and interpret a behavioral event in his

description towards this recipient. Consistent with this idea Fiedler et al. (2003) demonstrated

that the LEB pattern completely reversed when senders assumed they communicated

information about a target to a recipient with a discrepant attitude (see also Ruscher & Duval,

1998; Kashima, Klein & Clark, 2007). Note that in these cases a sender's linguistic bias arises

from the expectancies of a recipient, similar to Carnaghi & Yzerbyt's studies (2006, 2007).

A particularly interesting situation occurs when the target of a behavior description is

also the recipient. Variations in language can be employed strategically to put someone in a

positive or negative light, to praise or denigrate the other. In these cases, the nature of the

interaction is likely to affect the goal, and thus the occurrence of a linguistic bias effect.

Semin, Gill de Montes and Valencia (2003) showed that when senders expected to cooperate

with a partner the LIB pattern emerged. Senders described positive behavior of their partner at

a higher level of abstraction than negative behavior. When senders expected to compete with

a partner, however, the LIB pattern was reversed, describing their positive behavior at a lower level of abstraction compared to negative behavior. This pattern only emerged when senders were told that their message would be passed on to their partner, suggesting that a goal to influence the relation with the partner determined the LIB effect.

In sum, the interpersonal context may determine whether or not stereotypes become activated (Wigboldus, Spears & Semin, 2005), and may evoke particular communication goals, either aimed at explaining something or convincing a recipient (Fiedler et al., 2003), or aimed at strategically influencing interpersonal relations (Semin, Gill de Montes & Valencia,2003). As described above, communication goals may overrule effects of activated stereotypic expectancies (Douglas & Sutton, 2003), and can consequently completely reverse the linguistic bias effects.

Conclusion and future research

This chapter reviewed research on linguistic bias in communications about stereotype relevant information. Different linguistic biases show that people tend to systematically vary their language in communications about stereotype inconsistent as compared to stereotype consistent information. The reviewed linguistic biases suggest that stereotype inconsistent information is, in general, reflected in relatively more specific and concrete linguistic predicates than stereotype consistent information. This is in line with the idea that stereotype inconsistent information demands elaboration. People tend to explain inconsistencies, by compartmentalizing and attributing it as information separate from the general stereotype. These cognitive efforts occur at an intrapersonal level, but surface in language use and interpersonal conversations. The biased descriptions induce different cognitive inferences in both senders and recipients, implying that stereotype inconsistent (as compared to consistent) characteristics and behaviors are relatively less enduring, stable and dispositional. In other

words, the descriptions used for stereotype inconsistent persons and behaviors imply lower essentialism (see Table 1). This pattern of inferences is stereotype confirming and maintains the stereotypic expectancies that instigate the biased descriptions.

The research described in this chapter thus shows that *how* people talk about stereotypic information is an important factor in stereotype maintenance. Another important area of research with respect to stereotype maintenance and communication focuses on *what* people tend to talk about. Research demonstrated that people are more likely to talk about information they share with other people (Fast, Heath, & Wu, 2009), and that stereotype consistent information gets advantage over stereotype inconsistent information (Clark & Kashima, 2007; Kashima, Klein & Clark, 2007). The linguistic biases discussed in this chapter show that even when stereotype inconsistent information is introduced in communication, it is formulated in such a way that stereotypic knowledge remains intact. Even in the face of stereotype inconsistent information, stereotypes are continuously re-confirmed or strengthened. Communicating about stereotype relevant information provides an opportunity to verify, maintain and share stereotypic assumptions. As described above, reaching acceptance of recipients and achieving common ground strengthens one's privately held convictions about social categories. Consequently, when people communicate about stereotype relevant information they are more likely to essentialize category information, than when they simply memorize it (Kashima et al., 2010).

Recent research suggests that the stereotype confirming effects of linguistic biases are mainly expected when sender and recipient have common ground, that is, when they share the same stereotypic expectancies about a target. In these cases, provided that the relevant stereotypic expectancies are activated, a senders language will both reflect his or her own stereotypic expectancies and will concurrently be tuned to the perceived corresponding expectancies of recipients. By producing and receiving biased language, and by obtaining

mutual agreement both sender and recipient will reconfirm and strengthen their stereotypes. When common ground is lacking, however, effects may reverse. In these cases a sender may employ the same linguistic tools to explain or convince a recipient about stereotypic expectancies in order to establish common ground (cf Fiedler et al. 2003). Future research may shed more light on the intriguing intra- and interpersonal mechanisms underlying linguistic biases.

The integrative approach adopted in this chapter enables predictions about the mechanisms and effects of these different biases. An integrative methodological approach may be adopted to study how these different biases combine in spontaneous language use. Do they co-occur or does the use of one type of bias diminish the use of another? Future research may also reveal other biases in language use that undoubtedly exist. In line with the biases described in the present chapter such other biases in language use may vary along a concrete-abstract dimension.

For instance, a bias may exist within the use of different adjectives distinguished in breadth versus narrowness (Karpinski & Von Hippel, 1996; Karpinski, Steinberg, Versek & Alloy, 2007). The breadth of a trait adjective has been defined as the number of distinct behaviors it subsumes. For example, both "musical" and "talented" can be used to describe the same person, but the broader adjective, "talented," implies a larger number of positive behaviors. Thus, broad adjectives are more abstract than narrow adjectives. Hamilton et al. (1992) suggested there may be an expectancy maintenance mechanism that relies upon the breadth of trait adjectives. This would mean that someone who behaves in a stereotype consistent manner will be more likely described with broad rather than narrow adjectives, whereas someone who behaves in an stereotype inconsistent manner will be described with narrow rather than broad adjectives.

A second extension may lie in several distinct word categories defined in the Linguistic Inquiry and Word Count (LIWC; Pennebaker, Booth, & Francis, 2007). A recent study (Beukeboom, Tanis & Vermeulen, under review) revealed a number of significant correlations between language abstraction as defined by the LCM and LIWC variables in descriptions of social events. Particularly, an increased concreteness in language co-varied with the use of articles, numbers, and specific references to humans.

To conclude, research has revealed how seemingly harmless subtleties in language use can have a major impact in the maintenance of prejudice and stereotypic representations. By revealing the mechanisms behind these biases, people may become more aware of biased word choices, and potentially prevent potentially negative effects.

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