Language Use and Stereotyping: the Role of Approach and Avoidance Motivation Goals

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The use of more abstract language to describe expected behaviors as opposed to unexpected behaviors has traditionally been considered a way of stereotype maintenance. This tendency is known as linguistic expectancy bias. Two experiments examined the influence of approach and avoidance motivational orientations on the production of this linguistic expectancy bias. It was predicted that approach strategic orientation is likely to describe expectancy consistent behaviors at a higher level of linguistic abstraction than expectancy inconsistent behaviors. In contrast, avoidance strategic orientation is likely to describe both expectancy consistent behaviors and expectancy inconsistent behaviors at a lower level of linguistic abstraction, thus facilitating the disappearance of linguistic expectancy bias. Two experiments confirmed these expectations, using strategic orientation manipulations based either on communication goals or on motor action, and measuring linguistic abstraction either on forced-choice answer format or on free descriptions. Implications for the generalisation of linguistic expectancy bias are discussed.
Keywords: linguistic abstraction, expectancy bias, communication goals, motor action.

El uso de un lenguaje más abstracto para describir los comportamientos congruentes con las expectativas que los comportamientos incongruentes con las expectativas es una forma de mantener los estereotipos. Esta tendencia se conoce como el sesgo lingüístico de expectativa. Dos experimentos analizan la influencia de las orientaciones motivacionales de aproximación y evitación en la producción del sesgo lingüístico de expectativa. Se predijo que la orientación estratégica de aproximación promovería que comportamientos consistentes con la expectativa se describiesen con un mayor nivel de abstracción lingüística que los comportamientos inconsistentes con la expectativa. En cambio, la orientación estratégica de evitación induciría a que tanto los comportamientos consistentes como los inconsistentes con las expectativas se describiesen a un menor nivel de abstracción, facilitando con ello la desaparición del sesgo lingüístico de expectativa. Los dos experimentos que se presentan confirmaron dichas predicciones utilizando manipulaciones de orientación estratégica de aproximación y evitación formuladas en forma de metas comunicativas y en forma de acción motora. Además, se midió la abstracción lingüística tanto en formato de respuesta de elección múltiple como en descripción libre. El artículo debate las implicaciones de los estudios para la generalización del sesgo lingüístico de expectativa.
Palabras clave: abstracción lingüística, sesgo de expectativa, metas comunicativas, acción motora.

Using language in strategic ways is an efficient way of transmitting and maintaining stereotypes (Maass & Arcuri, 1996). Explicit aspects of language such as the use of positive or negative words are easy to regulate, but implicit aspects of language such as the use of linguistic abstraction seem to escape the communicator's control (Franco & Maass, 1999; Von Hippel, Sekaquaptewa, & Vargas, 1997). Examining the conditions under which linguistic abstraction is used to maintain stereotypes may prevent unintended consequences. This article suggests that stereotype maintenance depends not only on the language used to describe a certain person's behavior, but also on other factors such as the communicator's goals (Douglas & Sutton, 2003; Semin, Gil de Montes, & Valencia, 2003). Certain communicative contexts orient communicators towards the use of approach regulation. In these instances, the use of language enables the communicator to approach a certain outcome. This is the case for communicators who seek to convince others of something, or who inform others about something without constraint. Other communicative contexts, however, give rise to an avoidance motivation. In this case, the use of language helps to distance the communicator from the outcome - for instance, in situations where communicators do not want to be explicit about something, and talking only makes things worse. In the present paper we aim to examine whether approach and avoidance communication goals play a role in the abstraction used in language. Bias in linguistic abstraction has been held responsible for the perpetuation of stereotypes in social life (Wigboldus, Semin, & Spears, 2000).

Linguistic Expectancy Bias

In general, communicators tend to describe a target's expected behavior in more abstract terms than the same target's unexpected behavior. If we are talking about a person's expected behavior, it is more likely to be described in abstract, dispositional terms such as "Aimar is stubborn" rather than in concrete terms such as "Aimar insists on something". In contrast, an unexpected behavior is likely to be concretely described as an observable behavior such as "Aimar cries" rather than in abstract terms such as "Aimar is emotional" This phenomenon has been labelled linguistic expectancy bias (LEB) and has been said to be responsible for the implicit transmission and maintenance of stereotypes in the social domain (Franco & Maass, 1996; Wigboldus et al., 2000). The concrete description of an event is likely to be interpreted as something pertaining to a specific point in time, situationally constrained, not as informative about the target of the event, and unlikely to be repeated in the future (Semin & Fiedler, 1988; 1992). An abstract description of an event, however, leads recipients to infer that the event is more lasting, more informative about the target, and not situationally constrained. An abstract description also produces the inference that it is likely to be repeated in the

future. These cognitive inferences explain the effect that LEB has on maintaining pre-existing stereotypes in social life (Wigboldus et al., 2000).

The mechanism underlying LEB has been said to be a cognitive, expectancy-driven process (Maass, Milesi, Zabbini, & Stahlberg, 1995). Specifically, LEB is a linguistic response to confirm expected behaviors by using dispositional, abstract terms, and to disconfirm unexpected behaviors by using concrete terms, so that they are perceived as an exception to the rule (Rothbart & Park, 1986). As it is driven by cognitive processes, and it has been examined in different intergroup and interpersonal contexts, LEB is considered a systematic and pervasive phenomenon. However, some studies have recently shown that even if LEB is systematic, certain communication goals may alter the way it operates (Semin et al., 2003). For instance, Ruscher and Duval (1998) created communication dyads who were instructed to describe a target's stereotypical congruent and incongruent attributes. In one condition, co-communicators shared the same information about the target and in another condition the co-communicators were given partial and unique information about the target. The study showed that co-communicators with unique information had an accuracy goal driven by the desire to give a full image of the target. Thus, when forced to include incongruent attributes about the target, it was described emphasizing stable and enduring properties. Therefore, when co-communicators had unique information about the target, the target's incongruent attributes were more abstractly described and consequently, the LEB effect disappeared.

In their study, Douglas and Sutton (2003, study 4; see also Douglas, Sutton, & Wilkin, 2008) asked communicators to describe a target's characteristic and uncharacteristic attributes following different instructions. In one condition participants were instructed to describe the behavior in such a way as to create a misleading impression of the target. In another condition participants were instructed merely to describe the behavior. Results showed that in the control condition -mere description- the target's characteristic attributes were more abstractly described than the target's uncharacteristic features - that is, LEB was obtained. However, the opposite pattern was shown when communicators were instructed to create a misleading impression of the target. Thus, even if LEB is a systematic and pervasive phenomenon, there are in fact situations in which it can either disappear or even be reversed. Overall, the literature has begun, albeit to a small extent, to suggest that communication goals can moderate LEB.

Approach and Avoidance Communication Goals

This study examines the role of one specific kind of communication goal on LEB, namely, approach and avoidance communication goals. These have attracted attention for a long time because they are related to hedonic motivation (Brendl & Higgins, 1996; Carver & White, 1994),

the search for pleasure and avoidance of pain. The relationship between approach and avoidance motivations and language use has been implicitly present in this area of research, mainly due to the fact that approach and avoidance have usually been manipulated in linguistic terms. Indeed, approach and avoidance communication goals have been used to frame messages, usually in terms of gains and losses respectively (Greitemeyer & Weiner, 2003; Mann, Sherman, & Updegraff, 2004; Sherman, Mann, & Updegraff, 2006; Updegraff, Gable, & Taylor, 2004). However, the language used by communicators striving for approach and avoidance motivation goals has rarely been examined (for an exception, see Beukeboom & de Jong, 2008; Semin, Higgins, Gil de Montes, Estourget, & Valencia, 2005).

A recent study has suggested that approach and avoidance communication goals are related to linguistic abstraction (Semin et al., 2005, study 2). In particular, a target's behavior is more abstractly described when the communicator aims to communicate in such a way that a third party will think about the target in a positive way – approach - than when the behavior is communicated in a way which causes others not to think about the target in a negative way – avoidance. A parallel finding was obtained for the case of negative behaviors. Results indicated that regardless of the valence of the target's behavior, descriptions written to achieve a goal to be approached were more abstract than descriptions aiming at communication goals to be avoided. Importantly, evaluation of the behavior did not significantly account for the influence of motivational orientation on linguistic abstraction.

To our knowledge, these studies face three problems. Firstly, the evaluation of the target's behavior cannot account for the influence of approach and avoidance goals on linguistic abstraction, as the wording of approach and avoidance communication goals is consistently formulated in positive and negative terms respectively. Thus, regardless of the valence of the behavior, the positive and negative terms formulated in the communication goals may have influenced linguistic abstraction. This reasoning might call into question the motivational explanation of approach and avoidance communication goals. Secondly, the studies manipulated communication goals and measured linguistic abstraction by using linguistic means. The linguistic abstraction literature considers this methodological aspect to be an important limitation, because the language used in the formulation of the manipulation of the independent variable may have an influence on the linguistic dependent variable (Maass, Salvi, Arcuri, & Semin, 1989). Indeed, this is the main reason why studies concerning LEB have usually used drawings or cartoons to manipulate the target's expected and unexpected attributes. Finally, the behaviors used in the studies by Semin and colleagues (2005) manipulated the valence of the target's behavior and did not take into account the expectancy attributed to it. In these experiments, if a value of expectancy had to be assigned to the behaviors used, they could probably be

regarded as expected behaviors. The question about whether the results could be generalized to unexpected behaviors would remain open. Thus, in the present studies we attempt to address these limitations by examining whether the influence of behavioral expectancy on linguistic abstraction, is moderated by approach and avoidance motivation.

The examination of the influence of approach and avoidance goals on LEB provides new insights into the field of stereotype transmission and maintenance. Some communicative situations require that the communicator attempts to approach a certain outcome. This is the case, for instance, with communicators who insist on something, who attempt to convince others of something, or who inform others about something. In contrast, other situations require that the communicator inhibits and communicates no more than is necessary. This situation may be common in intergroup contexts where communicators use all resources available *not* to be explicit about some topic. It may also occur when communicators interact with people who think differently about some subject, when communicators expect conflict with people who do not agree with them, or in coercive contexts, when somebody is pressed to communicate something against their will. This kind of situation causes speakers to avoid explicit communication of conflicting subjects, and to inhibit communication even if something has to be said. To summarise, we propose that even though LEB has been said to be a systematic phenomenon, it may be moderated by approach and avoidance goals. In this way, the communicator's approach or avoidance goals would not only determine the language used to describe people's expected and unexpected behaviors, but also - through the cognitive inferences elicited by linguistic abstraction - determine what listeners think of those people.

How might approach and avoidance motivations be related to LEB? According to the affect-as-information approach (Schwarz & Bless, 1991; Schwarz & Bohner, 1996; Schwarz & Clore, 1996; Wyer, Clore, & Isbell, 1999), affective states have an informative function for people, and contribute to the creation of certain psychological situations. Positive affect informs the person that he or she is safe and that goals may be met. In this context, there is no need to display great cognitive effort, and people have a preference to rely on heuristics to make their judgments. In contrast, negative affective states inform the person that he or she faces a threatening situation that must be immediately changed. Transforming the situation into a non-negative one entails looking for ways of escaping from it and considering all possible results, which, in turn, stimulates a kind of detailed and analytical information-processing style. Consistent with this approach, a study has recently suggested that mood states affect linguistic abstraction. Specifically, a negative mood induces a detail-orientated processing style, facilitating a concrete use of language, whereas a positive mood induces a global processing style that fosters an abstract use of language (Beukeboom & Semin, 2006).

However, not only does affect elicit diverse cognitive processing styles. Some studies suggest that certain motivation patterns may also be related to cognitive processing, independent of affect. This is the case for approach and avoidance strategic orientations. Approach orientations trigger a global processing style and reliance on heuristics, whereas avoidance orientation facilitates an analytic processing style that motivates people to search for detail. If this is the case, an approach motivational orientation that fosters a careless and effortless cognitive processing style will facilitate reliance on heuristics and the communication of expected behaviors in a more abstract way than unexpected behaviors. In contrast, the detailed and persevering information processing elicited by avoidance strategic orientation help communicators to be concrete and specific in their messages about the target's behaviors. In this case, both expected and unexpected behaviors are predicted to be described in a more concrete way. To sum up, in the present studies it is hypothesized that approach and avoidance motivation moderates LEB, so that it will more probably emerge in approach rather than in avoidance situations. Importantly, the influence of approach and avoidance strategic orientations on linguistic abstraction must be explained beyond affect.

Linguistic abstraction was measured according to the linguistic category model (Semin, 1995, 2000, 2004; Semin & Fiedler, 1991). The linguistic category model provides a procedure for measuring the level of linguistic abstraction used in a description. Specifically, it consists of a typology of four linguistic categories that are placed on a continuum from most concrete to most abstract. Descriptive action verbs (DAVs) are located at the most concrete pole of the continuum. These action verbs represent behaviors that are observable (e.g., hit, kiss, say). Their meaning depends greatly on the context and they are not informative about the target. Also towards the concrete end of the continuum, but more abstract than DAVs, are interpretive action verbs (IAVs, e.g., hurt, insist, admire), which are not as observable but are still context-dependent. They are action verbs which may imply a whole range of behaviors. At the abstract end of the continuum are the state verbs (SVs, e.g., think, love, hate). These represent inner cognitive or emotional states. They do not refer to explicit actions and are not as context-dependent as IAVs. Finally, at the most abstract pole of the continuum are adjectives (ADJs, e.g., aggressive, helpful, thoughtful), which are highly informative about the target, highly inferential, and detached from the context.

STUDY 1

The aim of the first study was to examine whether LEB was moderated by approach and avoidance communication goals. Participants in the study were presented with an expectancy-congruent or -incongruent stimulus representing a female stereotype (Fiedler, Semin, & Finkenauer, 1993).

Concretely, in the expected condition, a cartoon was presented where a female target could be seen crying at the end of a romantic film. In the unexpected condition, the cartoon consisted of a female target sleeping at the end of a romantic film.

Afterwards, participants were asked to communicate the behavior to another person in order to meet an approach or an avoidance communication goal. Specifically, in the approach condition, participants were asked to communicate the behavior in order to reveal the image of women shown in the cartoon. In the avoidance condition, participants were asked to communicate the behavior in order to hide the image of women shown in the cartoon.

Previous studies that have examined approach and avoidance communication goals have used similar instructions. For instance, Semin and colleagues (2005) asked participants in the approach orientation condition to communicate certain behavior in such a way that a third party would think 'positively' about the target, whereas in the avoidance orientation condition they were asked to communicate the same behavior in such a way that a third party would 'not think negatively' about the target. In the present case, it is also the goal of communication that is approached (revealing the image of women) or avoided (hiding the image of women). The approach condition asks participants to create an image that should be clearly represented, whereas avoidance points to an image that should *not* be represented in communication.

It was expected that revealing the image of women would activate an approach communication goal, which would facilitate a global processing style and reliance on heuristics. In these situations, the female target's expected behaviors would be described more abstractly than her unexpected behaviors. In contrast, when communicators wrote their message with the aim of avoiding their communication goal, that is, hiding the image of women transmitted in the cartoon, then an analytical processing style would be likely to emerge. In this case, both expected and unexpected behaviors would be more concretely described. Thus, LEB would be more likely to emerge in the approach communication goal condition. Besides, it was predicted that communication goals would account for variance in linguistic abstraction beyond that explained by affect. Measures of affect in the present case were an evaluation of the behavior and emotional state of the participant.

Method

Participants and design

In the first study, fifty-two psychology students participated. Among them, 40 (77%) were female with ages ranging from 19 to 31 ($M = 21.6$; $SD = 3.1$). All participants were fluent users of Spanish. Participants collaborated in the

study on a voluntary basis. The study consisted of a 2 x 2 (Behavioral expectancy [expected vs. unexpected] x Communication goal [approach vs. avoidance]) factorial design. All participants were randomly assigned to conditions. No differences were found in sex distribution across different conditions of expectancy, $\chi^2(2, N = 52) = 1.8$, $p > .19$ or communication goal, $\chi^2(2, N = 52) = 1.5$, $p > .10$.

Materials and procedure

Upon entering the laboratory, participants were told that their participation was required in a study concerning gender stereotypes. They were told that they would be presented with a two-cartoon story where a female target was depicted watching the beginning and end of a romantic film. The first cartoon was the same in all conditions and represented a pink round figure on a sofa in front of a television screen. The second cartoon depicted the same figure at the end of the film, and in the expected condition she could be seen crying in floods of tears, whereas in the unexpected condition she could be seen sleeping. Participants were then asked to rate on a 7-point scale how typical the behavior was (1 = *not at all typical*, 9 = *very typical*) and how they evaluated the behavior (1 = *very negative*, 9 = *very positive*).

In order to control for the semantic value of the different alternative sentences prepared to measure linguistic abstraction, we measured linguistic abstraction before and after entering the communication goal manipulation. Using this format we got a baseline linguistic abstraction measure and the measure of linguistic abstraction after the communication goal manipulation. Participants were asked to choose, from four alternative descriptions varying in linguistic abstraction, the one they considered to best describe the picture. The four descriptions varied in the expected and unexpected conditions. In the expected condition they had to choose among: a) *She cries* (descriptive action verb), b) *She gets involved* (interpretive action verb), c) *She is affected* (state verb), d) *She is sensitive* (adjective). In the unexpected condition they chose among: a) *She sleeps* (descriptive action verb), b) *She gets bored* (interpretive action verb), c) *She is not affected* (state verb), d) *She is insensitive* (adjective). Linguistic abstraction was then coded in the following way: 1 = descriptive action verb, 2 = interpretive action verb, 3 = state verb, and 4 = adjective.

Afterwards, the communication goal instruction was introduced. In the approach communication goal condition they were given the following instructions: "Now, you must communicate this event to another person… Choose among the following descriptions the most appropriate to reveal the image of women that appears in the cartoon" In the avoidance communication goal condition, the word "reveal" was changed to "hide". Then, the measure of linguistic abstraction was presented again. On the last page, participants were asked whether they felt a list of feelings regarding the cartoon (based on Friedman & Förster, 2000).

The feelings were translated from English to Spanish and backtranslated to check for equivalency between the original and the Spanish version. The feelings were the following: worried, disappointed, calm, satisfied, tense, discouraged, relaxed, depressed, relieved, happy, nervous, content. Reliability for positive and negative feelings was satisfactory, Alpha = .70 and Alpha = .92, respectively. All in 9-point Likert type scales.

Results

Manipulation check. In order to test whether the manipulation of behavioral expectancy was effective, a one-way analysis of variance was conducted using behavioral expectancy as independent variable on the rating of typicality. Results showed a main effect for behavioral expectancy, $F(1, 50) = 24.28$, $p < .001$, indicating that the female expected behavior was perceived to be more typical ($M = 6.27$, $SD = 1.76$) than the female unexpected behavior ($M = 3.68$, $SD = 2$).

Linguistic abstraction. Linguistic abstraction is an ordinal variable that traditionally has been treated as continuous. Following the schema of previous studies (Maass et al., 1989, Wigboldus et al., 2000) and after checking for normality and equality of variance assumptions, parametric tests were performed. In order to test whether approach and avoidance communication goals moderated LEB, an analysis of variance was conducted by introducing communication goals and behavioral expectancy as independent and the linguistic abstraction rating as an dependent variable. The results revealed a main effect of behavioral expectancy $F(1, 48) = 22.28$, $p < .001$, $\eta^2 = .32$, suggesting that expected behaviors were more abstractly described ($M = 2.80$, $SD = .96$) than unexpected behaviors ($M = 1.64$, $SD = .79$). Moreover, the analysis was qualified by the predicted interaction between communication goals and behavioral expectancy $F(1, 48) = 4.37$, $p < .042$, $\eta^2 = .08$. Simple effect analyses revealed that it was mainly in the approach communication goal condition that expected behaviors were more abstractly described ($M = 2.94$, $SD = .68$) than unexpected behaviors ($M = 1.27$, $SD = .47$), $F(1, 25) = 49.53$, $p < .001$, $\eta^2 = .67$. In the avoidance communication goal condition though, results did not reach statistical significance ($M = 2.64$, $SD = 1.22$ for expected behaviors and $M = 2$, $SD = .89$ for unexpected behaviors), $F(1, 23) = 2.15$, $p > .156$. Besides, unexpected behaviors were more concretely described in the approach communication goal condition ($M = 1.27$, $SD = .47$) than in the avoidance condition ($M = 2$, $SD = .79$), $F(1, 20) = 5.71$, $p < .027$, $\eta^2 = .22$ (see Table 1).

If it is the informative nature of the situation the main process underlying the influence on linguistic abstraction, measures of affect examined as covariates should not eliminate the significant interaction. As in previous studies

Table 1

Means and Standard Deviations of Linguistic Abstraction as a Function of Communication Goal and Behavioral Expectancy

| | Communication goal | | | |
| | Approach | | Avoidance | |
Behavioral expectancy	M	SD	M	SD
Expected	2.94	.68	2.64	1.22
Unexpected	1.27	.47	2	.89

(Friedman & Förster, 2002), we entered the affective measures in the main analysis. In the first analysis of covariance, the evaluation of the target's behavior was introduced as covariate, while maintaining communication goal and behavioral expectancy as independent variables. The results showed that the interaction effect on linguistic abstraction remained unaffected $F(1, 47) = 4.28$, $p < .044$, $\eta^2 = .08$, as well as the expectancy effect in the approach condition $F(1, 24) = 39.59$, $p < .001$, $\eta^2 = .62$. Mean ratings of positive and negative affect induced by the stimulus were also separately included in the same analysis as covariates. In the case of positive affect, both the interaction and the expectancy effects in the approach condition were unaffected, $F(1, 47) = 4.13$, $p < .048$, $\eta^2 = .08$ and $F(1, 24) = 47.30$, $p < .001$, $\eta^2 = .66$, respectively. For negative affect, similar results were obtained $F(1, 47) = 4.28$, $p < .044$, $\eta^2 = .08$ and $F(1, 24) = 47.92$, $p < .001$, $\eta^2 = .67$.

Finally, a last ANCOVA was performed to control for the differences in meaning concerning descriptions used for manipulating expected and unexpected behaviors. Baseline linguistic abstraction was introduced as a covariate. The main interaction remained significant, $F(1, 47) = 4.15$, $p < .05$, $\eta^2 = .08$ (mean comparison in approach condition, $F(1, 47) = 17.81$, $p < .0001$, $\eta^2 = .28$), suggesting that semantic differences in expected and unexpected descriptions could not account for the interaction effect of communication goals and expectancy on linguistic abstraction. Thus, covariates did not alter the interaction effects regarding the influence of communication goals and behavioral expectancy on LEB.

Discussion

This study confirms our predictions by showing that linguistic expectancy bias is moderated by approach and avoidance communication goals. Specifically, when asked to reveal the image of women (approach communication goal), participants described the female expected behavior in more abstract terms than her unexpected behavior. Thus, LEB emerged. In contrast, when communicators aimed at hiding the image of women shown in the cartoon – avoidance communication goal - LEB was reduced.

Neither the evaluation of the target's behavior nor the emotions elicited by it explain the influence of approach and avoidance communication goals on linguistic abstraction. However, it can be argued that the linguistic formulation of communication goals may have influenced the linguistic abstraction response. Indeed, revealing information may be interpreted as having a positive tone, and hiding information as having a negative tone. Thus, in order to answer this question and to increase the validity of these findings, a second study was designed.

STUDY 2

The aim of this study was to replicate the findings of study 1 and generalise them. We also planned to examine more deeply the processes that may be underlying the relationship between approach and avoidance goals and the linguistic expectancy bias. Therefore, we examined whether linguistic expectancy bias was moderated by approach and avoidance strategic goals, by adding three modifications to Study 1. First, we manipulated approach and avoidance strategic orientations not by using a linguistic frame but by using motor action.

Using proprioceptive cues to manipulate approach and avoidance orientations eliminates the problem of having both a linguistic manipulation and a linguistic measure. Moreover, the evaluative tone in the linguistic instructions, which may mask the effect of motivational orientation, is also eliminated. Indeed, motor action as a means of manipulating strategic orientation is clearly a non-affective cue. Even if it is a non-affective manipulation, certain motor actions have been reported to determine cognitive processing, as well as affective responses (Cacioppo, Priester, & Berntson, 1993; Förster & Strack, 1996; Friedman & Förster, 2000; Priester, Cacioppo, & Petty, 1996). For example, holding a pen with the teeth facilitates adopting a motor action similar to smiling. In one study Strack, Martin, and Stepper (1988) showed that this motor action induced positive affect, whereas a motor action of holding the pen with protruded lips was more likely to elicit negative affect. Similarly, Förster and colleagues (Förster, Grant, Idson, & Higgins, 2001; Förster, Higgins, & Idson, 1998) conducted a series of experiments where approach strategic orientation was manipulated by asking participants to position the arm under the table while pressing slightly upwards as if pulling

towards themselves. Avoidance strategic orientation was manipulated by placing the arm on the table while pushing downwards. In this case, the movement was interpreted as if establishing a distance from the self. This procedure has been successfully used to manipulate approach and avoidance orientations in several studies (Friedman & Förster, 2000; Van Prooijen, Karremans, & Van Beest, 2006). Moreover, bodily feelings have also been claimed to induce differences in linguistic abstraction. According to Beukeboom and de Jong (2008), arm extension is likely to elicit an analytical and detailed processing style which facilitates a concrete use of language, whereas arm flexion is likely to induce a global processing style leading to an abstract use of language. In this study, approach and avoidance orientations were manipulated by asking participants to adopt arm positions.

A second modification was the behavioral expectancy manipulation. Instead of using cartoons to manipulate the female stereotype, participants were asked to bring to mind a friend that they considered a typical or atypical person of their own sex. Then, they were asked to describe an event where this person was shown to be typical or atypical. Thus, each participant elicited different events for expected and unexpected conditions. Finally, the measure of the dependent variable was also modified. In this study, linguistic abstraction was measured in free descriptions.

It was expected that avoidance strategic orientation is likely to elicit an analytical processing style most appropriately represented in a concrete use of language. Thus, we predicted that in the avoidance strategic orientation condition, expected and unexpected behaviors are both rather concretely described. In contrast, LEB is likely to emerge in the approach strategic orientation condition, where less cognitive effort is invested in information processing. Thus in the approach condition, expected behaviors are likely to be described more abstractly than unexpected behaviors. The influence of motivational orientation on LEB should be explained beyond affect, so it is expected that entering either valence of the behavior or positive and negative feelings as covariates should not affect the significant interaction. Other control variables in this study were effort invested with the arm and arm comfortableness. Motivational orientation should be manipulated by arm position, and effort or arm comfortableness should not contribute significantly to the main results.

Method

Participants and design

An independent group of participants was involved in this study. Sixty-three participants recruited in the campus of the University of the Basque Country were involved in this study. Forty-two students (67%) were female with ages ranging from 18 to 27 ($M = 20.4$; $SD = 2.04$). All participants were fluent Spanish speakers. The study consisted of a 2 x 2 (Behavioral expectancy [expected, unexpected] x Strategic orientation [approach, avoidance]) factorial design. All participants were randomly assigned to conditions. Distribution of sex was similar in expectancy ($\chi^2(2, N = 63) = .38$, $p > .10$) and goal conditions ($\chi^2(2, N = 63) = .24$, $p > .10$).

Materials and procedure

Participants agreed to participate in a study about the relationship between social perception and laterality that would take approximately 15 minutes. The experiment was run in groups of five or six people maximum. The experimenter handed participants a four-page questionnaire and told them to fill the first two pages and to wait for further instructions. The first two pages consisted of the behavioral expectancy manipulation, and ratings of typicality, evaluation and affect. To introduce the behavioral expectancy manipulation, participants were given the following instructions: "Think of a person of your own gender who possesses typical attributes of your gender (due to personality, appearance, habits, etc.)". In the unexpected condition, the word "typical" was substituted by "atypical". Participants were instructed to write the person's initials and to answer questions about typicality "how typical of your gender are the attributes of this person?" and evaluation "how do you evaluate this person?" Both questions were answered on 9-point Likert type scales (1 = *not at all*, 9 = *very much* and 1 = *very negatively*, 9 = *very positively*, respectively). Participants were then asked to answer questions about their feelings, as in Study 1.

Afterwards, the strategic orientation manipulation was introduced. Participants were given the following instructions in the approach condition: Now we are going to introduce the laterality manipulation. You must fill the next section of the questionnaire by positioning the arm that you do not write with under the table. The angle of your forearm to your arm should be 90 degrees. Your hand must press slightly upwards till we announce otherwise.

In the avoidance condition, participants were given equivalent instructions but they were asked to position the arm on the table and to press slightly down on the table. Once the manipulation was introduced, they were asked to write briefly an event involving the person mentioned and which gave an account of the typical (or atypical) attributes for their gender. An empty page was provided for this purpose.

Once they had finished writing they were told to relax their arm, and they were asked to rate to what extent they thought the event was characteristic of the target. Besides, participants specified how they felt regarding the event. They were presented again with the same list of feelings (Cronbach Alpha for positive feelings was .82 and for negative feelings .75). All questions were answered on 9-

Table 2

Means and Standard Deviations of Linguistic Abstraction as a Function of Strategic Orientation and Behavioral Expectancy

| | Strategic orientation | | | |
| | Approach | | Avoidance | |
Behavioral expectancy	M	SD	M	SD
Expected	2.47	.56	2.13	.48
Unexpected	2.04	.26	2.26	.62

point scales, anchored as in the first study (1 = *not at all*, 9 = *very much*).

Moreover, two questions were asked regarding effort and comfortableness of arm position: "How much effort have you had to make with your arm?" and "How comfortable was your arm position?" Both questions were answered on 9-point scales (1 = *not at all* 9 = *very much*).

Linguistic abstraction. The level of linguistic abstraction in the free descriptions was measured according to the linguistic category model (Semin & Fiedler, 1988; 1991). All interpersonal verbs and adjectives extracted from the descriptions were written on a list and coded in the following way: 1= descriptive action verbs, 2 = interpretive action verbs, 3 = state verbs and 4 = adjectives. Two independent judges coded the linguistic categories, revealing acceptable inter-judge reliability (Cohen's Kappa = .88).

The number of linguistic categories employed in the descriptions ranged from 3 to 18 (M = 8.60, SD = 3.42). From 792 linguistic categories, 29% were descriptive action verbs, 35.2% interpretive action verbs, 24% state verbs and 11.4% adjectives. In order to examine whether the length of descriptions varied across conditions, an analysis of variance was conducted. Strategic orientation and Behavioral expectancy were entered as independent variables and the number of linguistic categories as a dependent measure. The results revealed that expectancy-congruent descriptions (M = 9.7) were longer than expectancy-incongruent descriptions (M = 7.68), $F(1, 55)$ = 5.683, p < .023, η^2 = .094. No significant interaction was found, $F(1, 55)$ = 0.462, p < .499, η^2 = .008. Linguistic abstraction was computed in the following way:

Linguistic abstraction = (sum(DAV) + sum(IAV)*2 + sum(SV)*3 + sum(ADJ)*4)/ sum(DAV + IAV + SV + ADJ)

Results

Manipulation checks. In order to check for the manipulation of behavioral expectancy, an analysis of variance was conducted on the typicality rating. Results of the analysis of variance showed an effect for behavioral expectancy $F(1, 59)$ = 25.31, p < .001, η^2 = .29, suggesting that expected behaviors (M = 7.32, SD = 1.3) were perceived to be more typical than unexpected behaviors (M = 4.69,

SD = 2.71). Moreover, in another ANOVA we examined the degree to which the descriptions were characteristic of the target. Strategic orientation and behavioral expectancy were entered as independent variables. Results indicated no expectancy $F(1, 59)$ = .26, p < .789, η^2 = .01 or communication goal effect $F(1, 59)$ = 1.71, p < .196, η^2 = .03 and no interaction $F(1, 59)$ = .001, p < .978, η^2 = .01.

With regard to arm position, placing the arm on the table in the avoidance condition required slightly more effort (M = 5.91, SD = 1.56) and was perceived to be less comfortable (M = 3.46, SD = 1.65) than placing the arm beneath the table in the approach condition (M = 5.07, SD = 1.80 and M = 4.29, SD = 1.65), $F(1, 59)$ = 3.89, p < .053, η^2 = .06, $F(1, 59)$ = 3.57, p < .064, η^2 = .06. No interaction effects were found $F(1, 59)$ = 0.12, p < .736, η^2 = .01 and $F(1, 59)$ = 2.03, p < .16, η^2 = .03, respectively.

Linguistic abstraction. Linguistic abstraction adjusted to normality and homocedasticity, so an analysis of variance was performed to examine the effect of strategic orientation (approach, avoidance) and behavioral expectancy (expected, unexpected) on linguistic abstraction. The results revealed a significant interaction effect, $F(1, 59)$ = 4.8, p < .032, η^2 = .08. Simple effect analyses indicated that in the approach condition, expected behaviors (M = 2.47, SD = .56) were more abstractly described than unexpected behaviors (M = 2.04, SD = .26), $F(1, 26)$ = 6.72, p < .015, η^2 = .21, whereas in the avoidance condition, a non-significant difference was obtained, (M = 2.12, SD = .48 for expected and M = 2.26, SD = .62 for unexpected behaviors, $F(1, 33)$ = .49; p < .5, η^2 =.02 (see Table 2).

In order to examine the interaction effect more closely, the influence of several covariates was studied. The covariates included have been said to be relevant for ruling out alternative explanations in previous studies (Friedman & Förster, 2002). Firstly, the evaluation of the target's behavior was introduced as covariate. As a result, the strategic orientation by behavioral expectancy interaction on linguistic abstraction remained significant $F(1, 58)$ = 4.04, p < .049, η^2 = .07, and also the expectancy effect in the approach condition $F(1, 25)$ = 4.99, p < .035, η^2 = .17. Positive and negative affect elicited by the event - before and after entering the strategic orientation manipulation - were then examined as covariates. Positive and negative affect elicited by the target before entering the strategic orientation manipulation

did not alter the significant interaction, $F(1, 57) = 4.01$, $p < .05$, $\eta^2 = .07$ and $F(1, 57) = 4.07$, $p < .049$, $\eta^2 = .07$, respectively. The expectancy effect within the approach condition also remained relatively unaffected in both cases $F(1, 24) = 3.97$, $p < .058$, $\eta^2 = .14$ and $F(1, 24) = 7.95$, $p < .009$, $\eta^2 = .25$, respectively. Nor did the same variables, measured after entering the strategic orientation manipulation, substantially alter the significant interaction, $F(1, 58) = 3.67$, $p < .06$, $\eta^2 = .07$ and $F(1, 58) = 4.77$, $p < .03$, $\eta^2 = .08$, respectively. Again, the expectancy effect in the approach condition remained $F(1, 25) = 5.61$, $p < .026$, $\eta^2 = .18$ and $F(1, 25) = 6.13$, $p < .02$, $\eta^2 = .20$, respectively.

Finally, the measures of effort made during arm positioning and comfortableness with arm position were included as covariates in two separate ANCOVAs. As a result, the strategic orientation by behavioral expectancy interaction on linguistic abstraction remained significant, $F(1, 58) = 4.60$, $p < .036$, $\eta^2 = .07$ and $F(1, 58) = 4.8$, $p < .033$, $\eta^2 = .08$ respectively. In both cases, expectancy effects remained within the approach conditions $F(1, 25) = 6.69$, $p < .016$, $\eta^2 = .21$ and $F(1, 25) = 9.33$, $p < .005$, $\eta^2 = .27$ respectively.

Discussion

The results of this study replicate those found in study 1 by showing that LEB is more likely to occur when communicators are in approach than in avoidance situations. Specifically, expected behaviors were more abstractly described than unexpected behaviors in the arm flexion situation. This study generalizes the findings of Study 1 by revealing that non-linguistic approach and avoidance goals do also affect emergence of the LEB. In fact, motor action manipulations of approach and avoidance goals have been successfully used in the literature (Friedman & Förster, 2002).

Importantly again, the moderating role of approach and avoidance strategic orientations does not seem to be explained either by the evaluation of the target's behavior or by the positive and negative affect elicited by it. The influence of approach and avoidance goals on LEB is beyond affect.

General discussion

The context where a person communicates creates goals that affect how language is used. Some contexts allow the communicator to express him or herself freely, and the communicator aims at approaching goals. Other contexts though, may prevent the communicator from communicating freely so that language use distances the person from the current goal. The first study in this paper shows that speakers aiming at approaching a communication goal, as revealing information about a target to others, are likely to bias their

language in direction to the linguistic expectancy bias. They tend to describe the target's expected behaviors in a more abstract way than unexpected behaviors. In contrast, avoidance communicative goals that lead the speaker to hide or conceal information seem to eliminate the LEB by making communicators express themselves more concretely. We explained these results by turning to the affect-as-information hypothesis (Schwarz & Bless, 1991; Schwarz & Bohner, 1996; Schwarz & Clore, 1996). We argue that affective states elicited by the situation (that creates a communication goal) are informative to the speaker and thus, they facilitate different patterns of information processing. Specifically, approach situations inform that the current situation is safe and secure, processing becomes more relaxed and speakers may rely strongly on heuristics and stereotypes. Under these conditions, the LEB is likely to appear. On the other hand, avoidance goals inform the speaker about the situation being dangerous and should be changed. Information processing is likely to be analytic in this case so that negative outcomes are avoided. These situations foster concrete language and the LEB is less likely to appear. Results of study 2 suggested that this was a likely explanation of the results. Approach and avoidance goals were manipulated by motor action. This is a manipulation that has been said to provoke motivational orientations in several studies (Förster et al., 1998; 2001). We got parallel results in both studies.

If communication goals affect linguistic abstraction, does this mean that speakers are aware of the language they use? We think that this is not the case. The LEB has been said to be an implicit phenomenon in previous studies (Franco & Maass, 1996, Von Hippel et al., 1997). In fact, it seems to correlate with implicit measures of prejudice. Approach and avoidance communication goals elicited by certain situations could be more or less explicit. When communication goals are implicit, as when approach and avoidance are induced by arm position, communicators are not aware neither of their goals nor of the language they use. When communication goals are explicit as when communicators are asked to reveal or hide some information, speakers are likely to control the meaning of whatever they say, the semantic value of their words. But we anticipate that this would not be the case for linguistic abstraction. Even if communication goals were explicit, speakers are likely to ignore the structural properties of their language (Douglas and Sutton, 2003). Does this mean that using linguistic abstraction or producing the LEB is not intentional? The LEB is intentional. It occurs under certain circumstances but it appears in the same fashion. It emerges as a result of a cognitive bias that assumes that typical expected behaviors should be generalized whereas atypical behaviors should be described as an exception to the rule. Thus, the LEB is intentional though it is an implicit phenomenon. In this sense, the present studies contribute to previous research by showing that the LEB is subject not only to explicit goals but also to implicit goals.

We could also wonder at what stage the speaker encodes the information about the target. One would wonder whether encoding of typical or atypical information by the speaker occurs before or after the communication goal is considered. It has been suggested that the LEB is automatic and more likely to occur before than after the communication goal (Wenneker, Wigboldus, & Spears, 2005). This suggests that approach communication goals may allow the linguistic bias to emerge, whereas avoidance goals would stop, prevent the bias once it has been previously formed.

Research on self-regulation offers alternative explanations to these results. According to self-regulatory focus theory (Higgins, 1997), approach strategies fostered by eager promotion regulation creates global processing styles, whereas avoidance strategies facilitated by safe and secure prevention self-regulation derives in care and detail oriented processing (Higgins, 1997, 1999). Research on stereotypes following this tradition has shown that positive stereotypes induce a promotion focus and a better recall of approach strategies, whereas negative stereotypes create a prevention focus and a better recall of avoidance strategies (Seibt & Förster, 2004). It could be anticipated that if we had manipulated valence apart from expectancy, positive and negative stereotyping –a LEB either for positive or negative behaviors- could have more likely emerge in approach goal conditions, whereas the effect should be reduced in avoidance goal conditions.

The studies presented contribute to research on linguistic abstraction by identifying a new moderator for emergence of the LEB. Other moderators haven been need for closure, and other communication goals, such as sharing (or not) unique information about the target or manipulating impression formation about a target. Moreover, these studies links motor action to language use (see Beukeboom & de Jong, 2008) providing a connection between actual language and most basic phylogenetic movements related to hedonic motivation.

Therefore, a question that remains open is whether these results may be generalized to negative target behaviors. In fact, in both studies the behaviors were evaluated towards the positive end of the evaluation scale, so they may be regarded as neutral to positive actions. It is already known that LEB is a general phenomenon, it occurs in intergroup and interpersonal contexts, and it emerges regardless of the positive or negative valence of the behaviors to be described in the absence of explicit intergroup threat (Maass, Ceccarelli, & Rudin, 1996). Therefore, we would expect similar results for the case of negative behaviors. Other questions that remain open are related to the role played by other variables. For instance, it would be worth testing how strategic orientation moderates LEB in people who are sensitive to reward cues, that is, more prone to use approach strategies, and people who are highly sensitive to punishment cues and have a preference for avoidance strategies. Supposedly, the interaction effect found in these studies could be predicted to be stronger in people who are sensitive to approach strategies. Notwithstanding, further research would be needed to answer this question.

In summary, even though previous studies have claimed that linguistic expectancy bias is a systematic phenomenon in language use, the present studies qualify these results by stating that it is more likely to emerge when communicators process information in an effortless way as a result of sustaining an approach strategic orientation. Linguistic expectancy bias emerges less probably when communicators face situations requiring avoidance regulation. Additionally, the present studies suggest that the impact of motivational orientation on stereotyping is beyond the individual, and may be socially maintained and perpetuated via language use.

References

Beukeboom, C. J., & de Jong, E. M. (2008). When feelings speak: How affective and proprioceptive cues change language abstraction. *Journal of Language and Social Psychology, 27*, 110–122. http://dx.doi.org/10.1177%2F0261927X080270020301

Beukeboom, C. J., & Semin, G. R. (2006). How mood turns on language. *Journal of Experimental Social Psychology, 42*, 553–566. http://dx.doi.org/10.1016%2Fj.jesp.2005.09.005

Brendl, C. M., & Higgins, E. T. (1996). Principles of judging valence: What makes events positive or negative? *Advances in Experimental Social Psychology, 28*, 95–160. http://dx.doi.org/10.1016%2FS0065-2601%2808%2960237-3

Cacioppo, J. T., Priester, J. R., & Berntson, G. G. (1993). Rudimentary determinants of attitudes: Arm flexion and arm extension have differential effects on attitudes. *Journal of Personality and Social Psychology, 65*, 5–17. http://dx.doi.org/10.1037%2F%2F0022-3514.65.1.5

Carver, C. S., & White, T. L. (1994). Behavioral inhibition, behavioral activation, and affective responses to impending reward and punishment: The BIS/BAS scales. *Journal of Personality and Social Psychology, 67*, 319–333. http://dx.doi.org/10.1037%2F0022-3514.67.2.319

Douglas, K. M., & Sutton, R. M. (2003). Effects of communication goals and expectancies on language abstraction. *Journal of Personality and Social Psychology, 84*, 682–696. http://dx.doi.org/10.1037%2F0022-3514.84.4.682

Douglas, K. M., Sutton, R. M., & Wilkin, K. (2008). Could you mind your language? An investigation of communicators' ability to inhibit linguistic bias. *Journal of Language and Social Psychology, 27*, 123–139. http://dx.doi.org/10.1177%2F026 1927X07313655

Fiedler, K., Semin, G. R., & Finkenauer, C. (1993). The battle of words between gender groups: A language-based approach to intergroup processes. *Human Communication Research, 19*, 409–441. http://dx.doi.org/10.1111%2Fj.1468-2958.1993.tb00308.x

Förster, J., Grant, H., Idson, L. C., & Higgins, E. T. (2001). Success/failure feedback, expectancies, and approach/ avoidance motivation: How regulatory focus moderates classic relations.

Journal of Experimental Social Psychology, 37, 253–260. http://dx.doi.org/10.1006%2Fjesp.2000.1455

Förster, J., Higgins, E. T., & Idson, L. C. (1998). Approach and avoidance strength during goal attainment: Regulatory focus and the 'goal looms larger' effect. *Journal of Personality and Social Psychology, 75*, 1115–1131. http://dx.doi.org/10.1037%2F%2F0022-3514.75.5.1115

Förster, J., & Strack, F. (1996). Influence of overt head movements on memory of valenced words: A case of conceptual-motor compatibility. *Journal of Personality and Social Psychology, 71*, 421–430. http://dx.doi.org/10.1037%2F%2F0022-3514.71.3.421

Franco, F. M., & Maass, A. (1996). Implicit versus explicit strategies of out-group discrimination. The role of intentional control in biased language use and reward allocation. *Journal of Language and Social Psychology, 15*, 335–359. http://dx.doi.org/10.1177%2F0261927X960153007

Friedman, R. S., & Förster, J. (2000). The effects of approach and avoidance motor actions on the elements of creative insight. *Journal of Personality and Social Psychology, 79*, 477–492. http://dx.doi.org/10.1037%2F%2F0022-3514.79.4.477

Friedman, R. S., & Förster, J. (2002). The influence of approach and avoidance motor actions on creative cognition. *Journal of Experimental Social Psychology, 38,* 41–55. http://dx.doi.org/10.1006%2Fjesp.2001.1488

Greitemeyer, T., & Weiner, B. (2003). Asymmetrical attributions for approach versus avoidance behavior. *Personality and Social Psychology Bulletin, 29*, 1371–1382. http://dx.doi.org/10.1177%2F0146167203255766

Higgins, E. T. (1997). Beyond pleasure and pain. *American Psychologist, 52*, 1280–1300. http://dx.doi.org/10.1037%2F%2F0003-066X.52.12.1280

Higgins, E. T. (1999). Promotion and prevention as a motivational duality: Implications for evaluative processes. In S. Chaiken & Y. Trope (Eds.), *Dual-process theories in social psychology* (pp. 503-525). New York, NY: Guilford Press.

Maass, A., & Arcuri, L. (1992). The role of language in the persistence of stereotypes. In G. R. Semin & K. Fiedler (Eds.), *Language, interaction and social cognition* (pp. 129-143). London, England: Sage Publications.

Maass, A., Ceccarelli, R., & Rudin, S. (1996). Linguistic intergroup bias: Evidence for in-group-protective motivation. *Journal of Personality and Social Psychology, 71*, 512–526. http://dx.doi.org/10.1037%2F0022-3514.71.3.512

Maass, A., Milesi, A., Zabbini, S., & Stahlberg, D. (1995). Linguistic intergroup bias: Differential expectancies or in-group protection. *Journal of Personality and Social Psychology, 68*, 116–126. http://dx.doi.org/10.1037%2F%2F0022-3514.68.1.116

Maass, A., Salvi, D., Arcuri, L., & Semin, G. (1989). Language use in intergroup contexts: The linguistic intergroup bias. *Journal of Personality and Social Psychology, 57*, 981–993. http://dx.doi.org/10.1037%2F%2F0022-3514.57.6.981

Mann, T., Sherman, D., & Updegraff, J. (2004). Dispositional motivations and message framing: A test of the congruency hypothesis in college students. *Health Psychology, 23*, 330–334. http://dx.doi.org/10.1037%2F0278-6133.23.3.330

Priester, J. B., Cacioppo, J. T., & Petty, R. E. (1996). The influence of motor processes on attitudes toward novel versus familiar semantic stimuli. *Personality and Social Psychology Bulletin, 22*, 442–447. http://dx.doi.org/10.1177%2F0146167296225002

Rothbart, M., & Park, B. (1986). On the confirmability and disconfirmability of trait concepts. *Journal of Personality and Social Psychology, 50*, 131–142. http://dx.doi.org/10.1037%2F%2F0022-3514.50.1.131

Ruscher, J. B., & Duval, L. L. (1998). Multiple communicators with unique target information transmit less stereotypical impressions. *Journal of Personality and Social Psychology, 74*, 329–344. http://dx.doi.org/10.1037%2F%2F0022-3514.74.2.329

Schwarz, N., & Bless, H. (1991). Happy and mindless, but sad and smart? The impact of affective states on analytic reasoning. In J. P. Forgas (Ed.), Emotion and social judgments. *International Series in Experimental Social Psychology* (pp. 55-71). Oxford: Pergamon Press.

Schwarz, N., & Bohner, G. (1996). Feelings and their motivational implications. In P. M. Gollwitzer, & J. A. Bargh (Eds.), *The psychology of action: Linking cognition and motivation to behavior* (pp. 119-145). New York, NY: The Guilford Press.

Schwarz, N., & Clore, G. L. (1996). Feelings and phenomenal experiences. In E. T. Higgins & A. W. Kruglanski (Eds.), *Social psychology: Handbook of basic principles* (pp. 433-465). New York, NY: The Guilford Press.

Seibt, B., & Förster, J. (2004). Stereotype threat and performance. How self-stereotypes influence processing by inducing regulatory foci. *Journal of Personality and Social Psychology, 87*, 38–56. http://dx.doi.org/10.1037%2F0022-3514.87.1.38

Semin, G. R. (1995). Interfacing language and social cognition. *Journal of Language and Social Psychology, 14*, 182–194. http://dx.doi.org/10.1177%2F0261927X95141010

Semin, G. R. (2000). Agenda 2000: Communication: Language as an implementational device for cognition. *European Journal of Social Psychology, 30*, 595–612. http://dx.doi.org/10.1002%2F1099-0992%28200009%2F10%2930%3A5%3C595%3A%3AAID-EJSP23%3E3.0.CO%3B2-A

Semin, G. R. (2004). The self-in-talk: Toward an analysis of interpersonal language and its use. In J. T. Jost, M. R. Banaji, & D. Prentice (Eds.), *Perspectivism in social psychology: The yin and yang of scientific progress* (pp. 143-160). Washington, DC: American Psychological Association.

Semin, G. R., & Fiedler, K. (1988). The cognitive functions of linguistic categories in describing persons: Social cognition and language. *Journal of personality and Social Psychology, 54*, 558–568. http://dx.doi.org/10.1037%2F0022-3514.54.4.558

Semin, G. R., & Fiedler, K. (1991). The linguistic category model, its bases, applications and range. In W. Stroebe & M. Hewstone (Eds.), *European review of social psychology* (pp. 1-50). Chichester, England: Wiley.

Semin, G. R., & Fiedler, K. (1992). The inferential properties of interpersonal verbs. In G. R. Semin & K. Fiedler (Eds.), *Language, interaction and social cognition* (pp. 58-78). Newbury Park, CA: Sage.

Semin, G. R., Gil de Montes, L., & Valencia, J. F. (2003). Communication constraints on the linguistic intergroup bias. *Journal of Experimental Social Psychology, 39*, 142–148. http://dx.doi.org/10.1016%2FS0022-1031%2802%2900523-1

Semin, G. R., Higgins, E. T., Gil de Montes, L., Estourget, Y., & Valencia, J. F. (2005). Linguistic signatures of regulatory focus: How abstraction fits promotion more than prevention. *Journal of Personality and Social Psychology, 89*, 36–45. http://dx.doi.org/10.1037%2F0022-3514.89.1.36

Sherman, D. K., Mann, T., & Updegraff, J. A. (2006). Approach/avoidance motivation, message framing, and health behavior: Understanding the congruency effect. *Motivation and Emotion, 30*, 165–169. http://dx.doi.org/10.1007%2Fs11031-006-9001-5

Strack, F., Martin, L. L., & Stepper, S. (1988). Inhibiting and facilitating conditions of facial expressions: A nonobstrusive test of the facial feedback hypothesis. *Journal of Personality and Social Psychology, 54*, 768–777. http://dx.doi.org/10.1037%2F%2F0022-3514.54.5.768

Updegraff, J. A., Gable, S. L., & Taylor, S. E. (2004). What makes experiences satisfying? The interaction of approach- avoidance motivations and emotions in well-being. *Journal of Personality and Social Psychology, 86*, 496–504. http://dx.doi.org/10.1037%2F0022-3514.86.3.496

van Prooijen, J., Karremans, J. C., & van Beest, I. (2006). Procedural justice and the hedonic principle: How approach versus avoidance motivation influences the psychology of voice. *Journal of Personality and Social Psychology, 91*, 686–697. http://dx.doi.org/10.1037%2F0022-3514.91.4.686

von Hippel, W., Sekaquaptewa, D., & Vargas, P. (1997). The linguistic intergroup bias as an implicit indicator of prejudice. *Journal of Experimental Social Psychology, 33*, 490–509. http://dx.doi.org/10.1006%2Fjesp.1997.1332

Wenneker, C. P. J., Wigboldus, D. H. J., & Spears, R. (2005). Biased language use in stereotype maintenance: The role of encoding and goals. *Journal of Personality and Social Psychology, 89*, 504–516. http://dx.doi.org/10.1037%2F0022-3514.89.4.504

Wigboldus, D., Semin, G. R., & Spears, R. (2000). How do we communicate stereotypes? Linguistic bases and inferential consequences. *Journal of Personality and Social Psychology, 78*, 5–18. http://dx.doi.org/10.1037%2F0022-3514.78.1.5

Wyer, R. S., Clore, G. L., & Isbell, L. M. (1999). Affect and information processing. *Advances in Experimental Social Psychology, 31*, 1–77. http://dx.doi.org/10.1016%2FS0065-2601%2808%2960271-3