

Communicating expectancies about others

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Abstract

The linguistic expectancy bias hypothesis predicts that, in general, person impressions are shared with others via subtle differences in the level of linguistic abstraction that is used to communicate expected and unexpected information about an individual. In a two-part communication experiment, we examined this hypothesis. In the first part of the experiment communicators were asked to provide a description of an event where a good friend had behaved in an expected or unexpected way. In the second part, recipients of these stories who were blind to the conditions under which the description was generated judged whether the story target's behavior was due to dispositional or situational factors. Behaviors in expected events were judged to be more dispositional relative to behaviors in unexpected events. As predicted, the level of linguistic abstraction mediated this effect. It is concluded that person impressions may be transmitted and formed at an interpersonal level via differential language use. Copyright © 2006 John Wiley & Sons, Ltd.

COMMUNICATING EXPECTANCIES ABOUT OTHERS

Our impressions of others are formed not only on the basis of our own observations, but also by what we learn from third parties. For instance, on the basis of others' comments, we may know that a certain colleague is a very good presenter without ever having attended one of her talks. As yet, this interpersonal facet of impression formation has not received much empirical attention. Both theory and research in person perception have predominantly focused on intrapersonal processes (for an overview, see Gilbert, 1998). At an interpersonal level, evidence has been found that *communicators'*

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Contract/grant sponsor: The Netherlands Organization for Scientific Research (NWO); contract/grant number: PPS 98-031.

own impressions of a target person may be influenced by their communication goals (e.g., McCann & Higgins, 1992; Sedikides, 1990; Zajonc, 1960); however, less is known about how *recipients'* impressions are formed. The question that we address in this paper is to what extent the *language* people use in communicating about others influences recipients' judgments about these others.

At a group level, ample evidence has been obtained that group level expectancies are transmitted and maintained between individuals via biased language use. Research on the *linguistic intergroup bias* has shown that positive ingroup and negative outgroup behaviors are described at a relatively high level of linguistic abstraction (e.g., 'The ingroup member is helpful' or 'The outgroup member is aggressive'). In contrast, negative ingroup and positive outgroup behaviors are described at a relatively low level of linguistic abstraction (e.g., 'The ingroup member pushes somebody' or 'The outgroup member opens the door for someone'; e.g., Maass, Salvi, Arcuri, & Semin, 1989; for an overview see Maass, 1999). In a similar vein it has been demonstrated that, in general, stereotype consistent behaviors are described at a higher level of linguistic abstraction than stereotype inconsistent behaviors (e.g., Maass, Milesi, Zabbini, & Stahlberg, 1995). Importantly, and in line with earlier research on the linguistic category model (Semin & Fiedler, 1988; 1992), linguistic biases such as these have been found to have an expectancy confirming impact on recipients of this biased information (Wigboldus, Semin, & Spears, 2000).

There is some evidence that these linguistic mechanisms operate also outside a specific intergroup context when expectancies are manipulated at an individual level (e.g., Maass et al., 1995, Exp. 3). Maass et al. induced an expectation about a target person that was not based on a category label (i.e., 'This person has been described by parents and friends as sociable and friendly'). Subsequently, participants were presented with a picture depicting expectancy consistent or expectancy inconsistent behavior of this target person. Participants were asked to choose the best out of four descriptions to describe this picture. These four descriptions differed in language abstraction according to the *linguistic category model* (LCM, Semin, 2000; Semin & Fiedler, 1988). It was found that participants choose more abstract predicates for expectancy consistent pictures than for expectancy inconsistent pictures. Apparently, evidence for biased language use such as predicted by the linguistic intergroup bias hypothesis can also be found outside an intergroup context. In line with this notion, it has recently been proposed to refer to this more general linguistic bias as the *linguistic expectancy bias* (LEB; Wigboldus et al., 2000; also see, Maass, 1999).

Although at a group level, ample evidence has been found for the occurrence of these linguistic biases (for an overview see, Maass, 1999), it should be noted that at the individual level the LEB effect has been shown very few times (Maass et al., 1995, Experiments 2 and 3; Werkman, Wigboldus, & Semin, 1999), always using the closed ended, multiple choice research paradigm described above. Note that this method differs quite a lot from actual language use. Also, in some of these interindividual experiments participants were asked to describe 'a friend' or 'an enemy' which can easily be seen as representatives of different social categories instead of individuals. Thus, as yet, evidence for the occurrence of a linguistic expectancy bias at an individual level is scarce.

Most importantly from an interpersonal perspective, however, is the fact that it is still unclear what the impact is of a linguistically biased message at an individual level on a recipient. Demonstrating that communicators show biased language use is only step one in the interpersonal process. The next question of course becomes to what extent this biased language use affects recipients. Recent evidence on the interpersonal transmission of stereotypes (Wigboldus et al., 2000) provides a preliminary answer to this question. In this research, it has been shown that biased language use influenced recipients' judgments in a stereotype confirming way. First, in line with the LEB it was demonstrated that transmitters constructed messages at a higher level of linguistic abstraction for stereotype consistent information than for stereotype inconsistent information. Second, it was shown that the stereotype consistent messages led to stronger dispositional inferences by recipients than the

stereotype inconsistent messages. Third, and most importantly, the latter effect was shown to be mediated by the level of linguistic abstraction of the messages.

Apparently, recipients based their judgments to a significant extent on the level of linguistic abstraction of the messages. The question remains, however, to what extent these findings can be generalized to interpersonal impression formation about *individuals*. The stereotype consistency of the messages used in these studies provided a context that may have affected the effects found. That is, both communicators and recipients shared the cultural stereotypes that were used. Thus, recipients knew the stereotype consistency of the messages. Therefore, it could be that in these studies, greater language abstraction led to greater stereotype activation that in turn affected recipients' inferences. Thus, in fact it still remains to be seen to what extent differences in language abstraction in themselves may mediate recipients' inferences.

In the case of expectancies at an individual level, independent recipients that do not know the actor in a message will not be familiar with the expectancy consistency of a message. Therefore, the explicit content of a message will not provide any clues about the expectancy of the behavior of an actor. A more stringent test of the mediation hypothesis outlined by Wigboldus et al. (2000) thus may be obtained when expectancy consistency is manipulated at an individual level.

Here we present a study that puts to test whether differences in language use as a function of differential expectancies based on person impressions at an individual level mediate the inferences independent recipients make in an expectancy-confirming way. Our aim is twofold. On the one hand, the current focus on interpersonal aspects of person perception presents a novel interpersonal perspective on impression formation by examining the language used in communicating about others and the impact this language use has on recipients. With this we aim to extend the predominantly intrapersonal tradition in person perception research. On the other hand, the current focus presents an important replication and extension of the finding that differences in language abstraction due to a LEB effect mediate recipients' inferences (e.g., Wigboldus et al., 2000) by using an expectancy consistency manipulation at an individual level. Because at an individual level the content of the messages in itself does not reveal the expectancy consistency of a message to a recipient, a more stringent test of this mediation hypothesis is provided.

The experiment we conducted consisted of two parts. In Part 1, participants functioned as communicators and were asked to communicate an expected and unexpected story about a good friend in their own words. In Part 2, a set of independent participants functioned as recipients of these messages. We measured the attributions they made about the actor in the message they received. Care was taken that recipients did not know how these messages originated, and thus, could not infer from the explicit content to what extent a message described expected or unexpected behavior of an actor. In line with the LEB phenomenon, we expected communicators to communicate expectancy consistent behavior at a higher level of abstraction than expectancy inconsistent behavior (Hypothesis 1). Moreover, we expected that this linguistic expectancy bias would influence recipients' dispositional inferences in an expectancy-confirming way. That is, stronger dispositional inferences for expected messages than for unexpected messages (Hypothesis 2). Importantly, we expected this effect to be mediated by the level of linguistic abstraction of the messages (Hypothesis 3).

METHOD

Participants

A total of 66 Dutch undergraduate students (17 men and 49 women) participated in this study ($M = 23$ years old). Twenty-two participants from the Free University Amsterdam took part in Part 1 of the

experiment; 44 participants from the University of Nijmegen took part in Part 2. Participants were recruited on campus and received 10Fl (approximately \$ 5) for their participation in this and another unrelated experiment. All participants were native Dutch speakers.

Overview and Design

The experiment consisted of two, separate parts. During Part 1, communicators generated and communicated expected and unexpected information about a good friend. During Part 2, attributions made by recipients on the basis of either the expected or the unexpected information were measured.

The experimental design of the study thus consisted of one independent variable with two levels: 2 (expectancy: expected vs. unexpected). Expectancy was varied within participants for Part 1 of the experiment and between participants for Part 2.

Procedure

Both parts of the experiment were carried out on Macintosh computers and were described to participants as a study on communication. Participants in *Part 1* of the experiment were first asked to think of a friend whom they knew well. Subsequently, we asked them to communicate two *true* stories about this friend to another, unknown participant. Participants were asked to describe one event in which their friend demonstrated behavior that can be considered as expected if you know this person well, and another event in which the same friend behaved in a more unexpected way (expectancy manipulation). The order in which participants were asked to do so was randomized. Participants typed their stories into the computer and were asked not to make explicit references to the expectancy of the events in their stories.

After participants finished writing each story we asked them to what extent the behavior in the story could be considered as expected or unexpected behavior of their friend. Participants could indicate their answer on a 9-point scale ranging from *very unexpected* (1) to *very expected* (9). This question was added as a manipulation check.

Finally, participants indicated their age and gender, were debriefed, and thanked for their participation in Part 1 of the experiment.

Participants in *Part 2* of the experiment were asked to read and judge one of the 44 stories that were communicated by participants in Part 1. The stories were randomly assigned to participants so that each participant read a printed version of one of the stories and each story was read and judged once. We explained to participants that the story had been written by another participant in an earlier experiment and asked them to ignore spelling and grammar errors. Participants in Part 2 rated the stories on four dispositional inference items aimed at measuring attributions participants made on the basis of the information in the story (see also, Wigboldus et al., 2000). Participants were asked to estimate the percentage of future situations in which the target would repeat the behavior described in the story by indicating a percentage (repetition likelihood), and were asked the following questions: 'To what extent is the behavior of the target due to the situation in which he or she finds him- or herself?' (situation attribution); 'To what extent is the behavior of the target due to the personality of the target?' (person attribution); and 'To what extent is the behavior of the target due to the situation or the person' (situation-person attribution). This last item was measured on a bipolar scale ranging from situation (1) to personality (100). Except for this last item and the repetition likelihood item, participants could indicate their answers on 7-point scales ranging from *not at all* (1) to *very much* (7). Ratings were completed in a randomized order.

Additionally, we asked participants to what extent the behavior of the target, in general, can be considered as expected or unexpected behavior of a person in the situation described. Participants could indicate their answer on a 9-point scale ranging from *very unexpected* (1) to *very expected* (9). This last question was added in order to check to what extent the behaviors in the stories, in general (as opposed to for the specific actor) could be considered as more expected or unexpected behaviors for people in that specific situation.

Finally, participants in Part 2 of the experiment indicated their age and gender, were debriefed, and thanked for their participation in the experiment.

Dependent Variables

The first dependent variable consisted of the abstraction level of the stories participants wrote in Part 1 of the experiment. Differences in abstraction level were quantified by the use of the *linguistic category model* (Semin & Fiedler, 1988). The linguistic category model distinguishes between four different levels of abstraction, which correspond to four distinct word categories. *Descriptive-action-verbs* are the most concrete, and are used to convey a non-interpretive description of a single, observable event (e.g., 'A shakes B's hand'). *Interpretive-action-verbs* also describe a specific event, but are more abstract in that they refer to a general class of behaviors instead of a specific concrete behavior (e.g., 'A helps B'). *State-verbs* constitute the next category in degree of abstraction and describe a state and not a specific event (e.g., 'A likes B'). The most abstract predicates are *adjectives* (e.g., 'A is helpful'). These generalize across specific events and objects and describe only the subject (see for detail: Semin & Fiedler, 1988).

The information that each participant communicated was coded by two independent raters familiar with Semin and Fiedler's (1988) linguistic category model and its scoring criteria. First, every verb (interpersonal as well as non-interpersonal) and every adjective referring to the target of the story was coded on the basis of the linguistic category model. These items were then scored in the following way: descriptive-action-verbs = 1; interpretive-action-verbs = 2; state verbs = 3; and adjectives = 4. On the basis of these scores the *mean level of abstraction* (see Semin and Fiedler, 1989) was computed for each story separately by adding the different scores and dividing them by their number. The mean level of abstraction for each story could thus vary between 1 (only descriptive-action-verbs, very concrete) and 4 (only adjectives, very abstract). The intercoder reliability was satisfactory (intercoder reliability, $r = 0.88$).

On the basis of the dispositional inference items obtained in Part 2 of the experiment, we constructed a scale consisting of the unweighted mean of the standardized means of the four dispositional inference judgments made for each story (see also, Wigboldus et al., 2000). For this purpose, the 'situation question' was recoded in the direction of the scale. Higher values on this scale indicated stronger personality attributions and weaker situational attributions. The reliability of this scale was good (Cronbach's $\alpha = 0.84$).

RESULTS

Mean Level of Abstraction

The mean level of abstraction of the stories written during Part 1 of the experiment was subjected to a paired *t*-test comparing expected stories with unexpected stories. As predicted in Hypothesis 1 and in

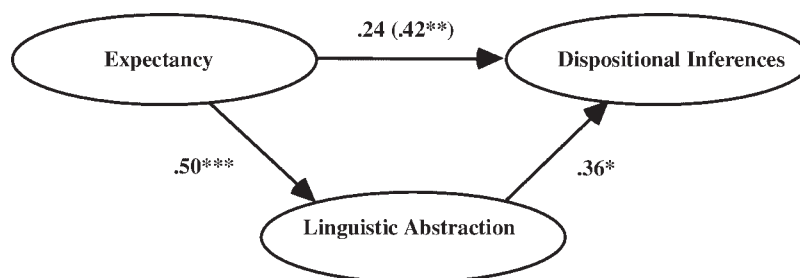
line with the LEB, expected stories were communicated at a higher level of linguistic abstraction ($M = 2.48$, $SD = 0.35$) than unexpected stories ($M = 1.98$, $SD = 0.53$), $t(21) = 3.94$, $p < 0.001$.

Recipients' Dispositional Inferences

The dispositional inferences completed by recipients during Part 2 of the experiment were also subjected to a t -test comparing expected stories with unexpected stories. The analysis revealed the predicted effect. In line with Hypothesis 2, expected stories led to stronger dispositional inferences ($M = 0.34$, $SD = 0.67$) by recipients than unexpected stories ($M = -0.34$, $SD = 0.82$), $t(42) = 3.01$, $p < 0.005$.

Mediational Analysis

According to Hypothesis 3, this difference in strength of dispositional inferences should be due to differences in the mean level of abstraction of the stories. After all, participants did not know the targets or the purpose of the study and thus could not have inferred on the basis of explicit content only that the story they judged was expectancy consistent or inconsistent. In line with the recommendations of Baron and Kenny (1986), separate path analyses were conducted in order to test whether the mean level of linguistic abstraction of the stories mediated the differences in recipients' dispositional inferences (see, Figure 1). In these analyses, the expectancy of the stories was contrast coded as one in the case of expected stories and -1 for unexpected stories. First, of course, the direct relationship between the expectancy of the stories and recipients' dispositional inferences was found again, $\beta = 0.42$, $t(42) = 3.01$, $p < 0.005$. Second, as reported earlier, the expectancy consistency of the stories was predictive of the tendency to communicate expected stories at a higher level of linguistic abstraction than unexpected stories, $\beta = 0.50$, $t(42) = 3.70$, $p < 0.001$. Third and most importantly, when both expectancy and linguistic abstraction were entered into the equation simultaneously, differences in the level of linguistic abstraction were predictive of recipients' dispositional inferences, $\beta = 0.36$, $t(41) = 2.39$, $p < 0.05$. Moreover, the relationship between the expectancy of the stories and recipients' dispositional inferences became nonsignificant, $\beta = 0.24$, $t(41) = 1.57$, $p = \text{n.s.}$ Using the



Recipients' Dispositional Inferences

Figure 1. Path analyses depicting the mediating role of the level of linguistic abstraction on recipients' dispositional inferences as a function of expectancy consistency. Coefficients depicted are standardized betas. The standardized beta value for the direct effect is given in parentheses. Expectancy consistency of the stories was contrast coded as 1 for expected stories, and -1 for unexpected stories
* $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$.

Baron and Kenny (1986) modification of the Sobel test (see Kenny, Kashy, & Bolger, 1998), the reduction due to language abstraction was found to be statistically significant, $Z = 1.98$, $p < 0.05$. Thus, we obtained evidence that the mean level of linguistic abstraction of the stories mediated recipients' dispositional inferences (Hypothesis 3).¹

Other Variables

Number of Predicates Used

The number of verbs and adjectives used did not differ between the expected ($M = 5.77$, $SD = 3.04$) and unexpected stories ($M = 5.32$, $SD = 3.27$), $t(21) = 0.55$, $p = 0.59$.

Valence

Recipients were asked to judge the valence of the story they read. Expected stories ($M = 5.91$, $SD = 2.16$) were judged more positively than unexpected stories ($M = 4.68$, $SD = 1.62$), $t(42) = 2.14$, $p < 0.05$.

Expectancy

The expectancy manipulation had the expected effect in Part 1 of the experiment. Communicators indicated that the expected behaviors ($M = 7.18$, $SD = 2.26$) they described were more to be expected of their friend than the unexpected behaviors ($M = 4.45$, $SD = 2.65$), $t(21) = 3.75$, $p < 0.001$.

We also asked participants in Part 2 to what extent the behavior in the story, in general, could be considered as expected or unexpected behavior in the situation described. It turned out that participants in Part 2 did not make a significant distinction between expected ($M = 5.23$, $SD = 2.07$) and unexpected stories ($M = 4.73$, $SD = 2.12$), $t(42) = 0.79$, $p = ns$. The behaviors described in the expected stories thus were not behaviors that, in general, may be considered as more expected behaviors than the behaviors described in the unexpected stories. Thus, it seems that the explicit content did not reveal the expectancy consistency of the stories to recipients.

Mediational Analysis

In order to check to what extent these other variables could explain recipients' dispositional inferences, we regressed recipients' dispositional inferences on the number of predicates used, the

¹The mean level of linguistic abstraction has successfully been used in several studies (e.g., Gil de Montes, Semin, & Valencia, 2003; Maass et al., 1989; Semin & Fiedler, 1989; Wigboldus et al., 2000). Nevertheless, one could argue that these effects might be due simply to the number of adjectives used in a story. That is, more traits lead to more dispositional inferences. In order to check for the impact of the number of traits used in the stories, we performed the mediational analyses also with the number of adjectives instead of the mean level of linguistic abstraction. As reported earlier, a relationship between the expectancy of the stories and recipients' dispositional inferences was found, $\beta = 0.42$, $t(42) = 3.01$, $p < 0.005$. Second, more adjectives were used in expected stories than in unexpected stories, $\beta = 0.57$, $t(42) = 4.45$, $p < 0.001$. However, when both expectancy and number of adjectives were entered into the equation simultaneously, differences in the number of adjectives used were not predictive of recipients' dispositional inferences, $\beta = 0.07$, $t(41) = 0.43$, $p = 0.67$. Moreover, the relationship between the expectancy of the stories and recipients' dispositional inferences remained significant, $\beta = 0.38$, $t(41) = 2.21$, $p < 0.05$. In a similar way the separate DAV, IAV, and SV scores did not mediate recipients' dispositional inferences.

valence of the stories, the judged expectancy of the transmitter and recipient, and mean level of linguistic abstraction. Importantly, only the mean level of linguistic abstraction was significantly predictive of recipients' dispositional inferences, $\beta = 0.38$ (all other β 's < 0.1).

DISCUSSION

The first step in any communication process is the encoding and transmission of a message by a communicator. With respect to this first step, the present experiment clearly demonstrates that, when freely describing the behavior of another person, communicators use differential levels of linguistic abstraction as a function of expectancies based on person impressions at an individual level. These results confirm and extend earlier results regarding differences in the level of linguistic abstraction of expected and unexpected descriptions of others at an individual level (e.g., Maass et al., 1995, Experiment 3). However, whereas in the very few earlier experiments a fixed response format was used, in the current experiment, transmitters chose the target they had to describe themselves, generated their own behavioral examples and communicated these in their own words. As a result, no two stories were alike. The finding that despite all these differences in explicit content, systematic differences in language use were obtained, in our view strongly adds to the validity of the LEB effect at an individual level. With this, the current findings give strong support to the important LEB suggestion that expectancy-driven language biases can be extended beyond intergroup settings and may also be found on the basis of beliefs about others that are unrelated to category membership or stereotype activation.

In the current experiment, differences in language abstraction due to expectancies varying at an individual level for the first time were shown to be responsible for the transmission and formation of person impressions at an interpersonal level. Recipients who read expected stories attributed them more to dispositional qualities and less to situational qualities, while the reverse was observed in the case of unexpected messages. Importantly, recipients were not aware of the expectancy consistency of the message they received. They did not know the actor in the message and thus did not know what was to be expected from this person. It was demonstrated that it was the level of linguistic abstraction of the messages that significantly mediated the impact on recipients and not other factors such as the valence of the stories, the expectancy, or the number of predicates used. The present study thus provides the first supporting evidence for the notion that person impressions may be transmitted and formed at an interpersonal level via differences in language abstraction.

The current focus on interpersonal aspects of person perception presents a novel perspective on social psychological research into person perception and impression formation. As yet, the focus in research on person perception has predominantly been on intrapersonal processes (see Gilbert, 1998). In research on the effects of communication goals on impression formation (for an overview, see McCann & Higgins, 1992) important advances have been made with respect to interpersonal aspects of impression formation. However, this research has not focused on the operation of the actual communication process. In our view, the present research provides a convincing example of *how* person impressions may be formed at an interpersonal level. By using more abstract language to describe expected behavior of a target and more concrete language for unexpected behavior, transmitters implicitly provide crucial information to a recipient. They transmit what is to be expected of a target without stating this explicitly in the message. Besides the semantic properties of their messages the meta-semantic properties embedded in the level of language abstraction used thus provide a host of information to recipients (see Semin, 2000). Although recipients may not have any prior knowledge of a target, they do form an impression on the basis of how this person is described at this meta-semantic level.

Interestingly, linguistic processes such as these have been shown to operate in an implicit fashion (Semin & de Poot, 1997; von Hippel, Sekaquaptewa, & Vargas, 1997). Communicators can have explicit communication goals, and these explicit strategies can lead to biased language use as well (Douglas & Sutton, 2003). However, even when the communication goals are 'intentional' at the same time they are 'unintentional' in the sense that people are (mostly) unaware of the linguistic tool they use to reach their communication goal. Person impressions may thus unintentionally and implicitly be transmitted and maintained at an interpersonal level. This may be one of the reasons why it sometimes is so hard to change a faulty impression.

Aside from introducing a communication framework on person perception, the current research also provides an extension to the existing literature on the impact on recipients of the linguistic expectancy bias. Earlier research on the impact of messages differing in language abstraction as a function of stereotypical expectancies demonstrated a mediational effect similar to the one obtained in the current study (Wigboldus et al., 2000). However, in this research, recipients' inferences to some extent could also be based on the stereotype confirming or disconfirming nature of the messages themselves. In our view, a strong feature of the present results is that the interpretation of the inferences made by recipients could not be confounded by the expectancy confirming or disconfirming nature of the messages themselves. After all, because recipients did not know the actors in the stories, it was not possible for them to establish the expectancy consistency of the information they received on the basis of the explicit content of this information. By avoiding the use of an established category and stereotype to convey expectation, the present study indicates that level of linguistic abstraction may play a critical role in the interpersonal transmission of expectancies, independent of the explicit content of a message. With this, the present results provide a more stringent test than earlier mediational evidence obtained in the context of stereotypes (Wigboldus et al., 2000) and add to the validity of the mediational role that linguistic abstraction plays in the interpersonal transmission of expectancies.

Not only in our social psychology lab, but also in everyday life, people are confronted with information about others whom they do not know and have no prior expectations about. These situations often entail important events such as a jury in a court of law, a police officer who interrogates a witness, or an employer who reads letters of reference. Specifically in these kinds of circumstances the present research procedure may be a valid one. In many cases, however, people do know what to expect from others, and this explicit knowledge may have a larger impact on their inferences as recipients than the subtle differences in language abstraction described in the present paper. Future research in which both aspects of a message are manipulated orthogonally may reveal under what circumstances and to what extent these two different aspects of a message affect recipients' inferences.

In summary, the studies reported here provide evidence for the notion that person impressions are formed at an interpersonal level. Importantly, language plays a subtle but crucial role in this process. Subtle differences in language abstraction convey speakers' expectancies about an actor to a recipient. In this way, recipients may form an impression of someone they have never met before on the basis of the implicit meaning conveyed by the choice of words by a speaker. With this, the present research indicates that person perception constitutes not only intrapersonal, but also interpersonal aspects.

ACKNOWLEDGEMENT

This research was supported by the Netherlands Organization for Scientific Research (NWO), Grant PPS 98-031. We thank Gooitske Marsman and Sandra Zwier for assistance in coding the data of Part 1 and Mark Dechesne and Inge Hindriks for help in collecting the data of Part 2.

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