Chapter 5:

General Discussion
The main goal of the present dissertation was to investigate how people’s perception of others is biased and how it is accurate. We argued in the introduction that bias and accuracy are not mutually exclusive, but that they can co-exist. In the empirical chapters of the present dissertation we investigated the influence of different biases on person perception and also how accurate these perceptions are. We will start this general discussion with a summary of the most important findings of the studies described in the empirical chapters.

Chapter 2: Moderators of the Projection Bias. In the second chapter we investigated the specifics of the projection bias, which represents people’s tendency to overestimate the similarity between the self and others. We showed that people’s prediction of the reaction of a similar other to everyday hassles resembled their prediction of their own reaction. In contrast, people’s prediction of the reaction of a dissimilar other did not resemble their prediction of their own reaction. It seems that people use projection to predict similar others and stereotype information to predict dissimilar others. Furthermore, we showed that when people predict the reaction of a similar other, the amount of projection is influenced by the order of the predictions. If people start by making a prediction for themselves, the projection bias is stronger than if people start by making a prediction for the similar other. The projection bias thus varies as a function of target, with similar targets eliciting a stronger projection bias, and it varies as a function of the order of predictions, with self-predictions preceding other-predictions eliciting a stronger projection bias. This finding adds to the literature on person perception by showing that the projection bias is influenced by social cognitive processes. With subtle changes in the order of prediction, the strength of the projection bias can be varied.

Chapter 3: Accuracy and Bias in Empathic Forecasting. In the third chapter we showed that people are prone to the impact bias when they predict the emotional experience of themselves and others after an emotion eliciting event. That is, people think that they will feel better than they actually do after scoring high on a test and they think that they will feel worse than they actually do after scoring low on a test. They overestimate the strength of someone else’s feelings to the same extent, independent of whether the other is a friend or a stranger. With the studies presented in Chapter 3 we added to the literature on affective forecasting by showing that the impact bias translates to interpersonal predictions.
Importantly, we also investigated the accuracy of the forecasts. This aspect of affective forecasts has not received much attention, but we showed that people are quite accurate in forecasting their emotional experience. People have a good sense of which emotions are more or less pronounced after a high or a low score on a test. Furthermore we investigated the interpersonal accuracy of the forecasts and showed that people are not very accurate in predicting the other's emotional experience. People's forecasts for someone else, however, resemble the forecast that person makes for him or herself. People seem to share intuitive theories about which emotions are more or less pronounced after a high or a low score on a test. We argued that this type of forecasting accuracy can be functional in an interpersonal setting. If both conversation partners agree on the emotional impact a certain event will have, this should enhance feelings of understanding between people.

Chapter 4: The Consequences of Accuracy. In the forth chapter we investigated the consequences of accurate person perception at the interpersonal level. We showed that people have fairly accurate knowledge about their partner's traits, preferences, and behaviours. Nevertheless, accurately knowing one's partner is not related to relationship well-being; those who have very accurate partner knowledge are not more satisfied than those who have less accurate partner knowledge. However, we found that the feeling of understanding one's partner and being understood by one's partner is positively related to relationship satisfaction. Those who feel that they understand their partner well and feel understood by their partner are more satisfied than those who feel less understanding. Thus, it is mainly people's own construction of how they perceive others and how others that is related to successful relationships.

In the forth chapter we focused mainly on the accuracy of partner-perception, but it is likely that biases played a role in the perception of the partner, too. As we argued in the introduction, couples are likely to be influenced by positive illusions (Murray et al., 1996). That is, they see more positive traits and less negative traits in their partner than there actually are. Although we did not report these analyses, we indeed found that participants in our study value their partner more than the partner values him- or herself. Furthermore, these positive illusions were correlated with relationship satisfaction such that more positive illusions were related to more satisfaction with the relationship (cf. Murray et al., 1996). This bias does not influence our results on accuracy, however. Although the partner
may give ratings that are overall higher than the person’s self-ratings, this does not influence the amount of accuracy as explained in the introduction. 

The fact that our couples were both accurate and biased in their perception of the partner shows that, if possible, it is always worthwhile to investigate both bias and accuracy in research on person perception. In our dataset the couples are biased because they have an overly positive view of their partner and they are accurate because they know which traits are more pronounced in their partner than others. Thus, often two stories can be found within one study if one takes a look at the other side of the coin.

Why to Study Bias and Accuracy in Person Perception?

We started our introduction with the question of why we should study bias and accuracy in person perception. We argued that this research enables us to understand how people’s perceptions can influence their behaviour. The studies presented in this dissertation further enrich this understanding. For example, in Chapter 3 we showed that affective forecasts for the self and for others are based on simple intuitive theories and are therefore similarly biased. This insight into the processes that guide our perception of others’ emotions helps us understand people’s communication about emotions. For example, our research may help us explain why it is so much fun to talk with friends about an upcoming wedding. One’s friends will likely be as enthusiastic about it as oneself, sharing the expectations about the perfect day, the perfect husband, and the perfect honeymoon. We showed that this agreement about how much happiness a wedding will bring stems from shared intuitive theories that are in fact biased. The experienced happiness will probably be lower because weddings are often accompanied by numerous hassles (e.g., tight schedules, drunken guests who misbehave). Nevertheless, the expected and forecasted happiness leads to a lot of pleasant anticipation. Recent research shows that sharing positive feelings with others enhances those positive feelings and even the quality of the relationship (Gable, Reis, Impett, & Asher, 2004). It is therefore likely that sharing the anticipation of positive feelings is also enhanced when shared with others. The fact that people’s perceptions of other’s emotions are based on simple intuitive theories and therefore biased thus enables this capitalization of positive feelings when talking about future events.

In our introduction we gave two examples showing how biases can influence our person perception for better or for worse. We argued that research on person perception is
not about eliminating bias but on studying when and why people are biased and what the consequences of biased perceptions are. Our research adds to this notion by showing that several different heuristics people use to predict others all lead to biases and that the consequences for interpersonal relationships can, under certain circumstances, be very positive.

_Bias and Accuracy in Person Perception._

In the introduction we proposed that bias and accuracy are conceptually different and that research on person perception should ideally investigate both. The present dissertation includes one chapter (Chapter 3) in which we do exactly that and the results we found for bias and accuracy were indeed different and allowed us to paint a more complete picture of how people predict others. Based on the bias measure – the difference score between empathic forecasts and the affective experience – we concluded that people grossly overestimate others’ affective experiences (cf. Gilbert & Wilson, 2003). Based on the accuracy measure – the correlation between empathic forecasts and the affective experience – we concluded that people are quite accurate in forecasting others’ affective experiences. These results may seem contradictory in the beginning, but as noted in the introduction, comparing the results of bias and accuracy is like comparing apples and oranges. Bias and accuracy cannot be compared because they are fundamentally different and answer different questions. If one is interested in systematic distortions in person perception one should investigate bias. If one is interested in the relative importance given to different aspects when perceiving a person one should investigate accuracy. Ideally, researchers on person perception are interested in both and include both measures in their studies as we did in our third chapter.

In the studies described in the second chapter we were not able to assess accuracy because we did not measure people’s actual reactions to the events they predicted. It was therefore not possible to verify their predictions. If we had had a measure of accuracy we would have been able to investigate whether predictions that are biased by the projection bias or by stereotypes are more accurate. This would have provided new insights into whether the use of these different strategies to predict different others is functional in that it leads to accurate predictions. Future research should therefore also include accuracy measures when investigating the use of projection and stereotypes in person perception.
In the forth chapter the dataset would have allowed us to calculate both bias and accuracy, but the main focus of the empirical paper was on the consequences of accuracy because the consequences of bias for the relationship have already been thoroughly investigated (e.g., Murray et al., 1996; Simpson et al., 1995). Although beyond the scope of that chapter, including both measures of bias and accuracy would have allowed us to compare couples with different perceptions of each other. Categorizing couples along the dimensions of bias and accuracy may provide new insights into which relationships are most successful. Couples who are highly biased and at the same time highly accurate should be more satisfied than couples that are highly biased and hardly accurate. For example, John may overestimate the importance Mary places on football and baseball but accurately know that she likes football more than baseball. If he would not even know this he might make the mistake of buying her tickets for a baseball game when in fact she thinks baseball is highly boring. In the former case he may at least buy football tickets which would be less detrimental for the relationship. Future research therefore ideally combines the measures of bias and accuracy to categorize couples into high and low biased couples and accurate and inaccurate couples. This comprehensive approach of including measures of bias and accuracy and even combining them would be ideal to investigate the processes that guide person perception and the consequences of person perception for the development, maintenance, and dissolution of social relationships.

**How to Study Person Perception?**

We argued in the introduction that there are almost as many ways to study person perception as there are researchers studying person perception. To some extent the choice of the design depends on the questions the researchers want to answer and to some extent it is a matter of taste. In the present dissertation we relied on questionnaires to assess self- and other-predictions. As noted in the introduction, this method has some drawbacks in that it may not reflect how people naturally think about themselves and others. Some researchers argue that measures of person perception should include several different standards (Funder, 1995). Other researchers emphasize the value of observing people in natural settings to capture natural occurring social perception (Ickes, 1997). Often these methods are very time-consuming for both researchers and participants. The findings obtained with these sophisticated methods are undoubtedly very valuable for the field. Our findings based on questionnaires, however, are mostly consistent with those found with
more complex methods. For example, we found that partners are more accurate in perceiving their partner’s positive behaviour than in perceiving their partner’s negative behaviour. These results are in line with findings on empathic accuracy research showing that people are more accurate in inferring their partner’s positive thoughts about the relationship than in inferring their partner’s negative thoughts about the relationship (Simpson et al., 2003). Thus, although our method may appear simple, the results we obtained support our notion that using questionnaires is a valid and effective method to assess person perception.

Implications

The present dissertation includes valuable insights into how people perceive and predict others around them. In the following section we will discuss the implications of the present dissertation for research on person perception. Furthermore, we will discuss implications of the present research that go beyond the topic of person perception to provide practical implications for research on emotions and personal relationships.

Implications for person perception research. Throughout this dissertation we found ample support for the fact that people use heuristics to predict others. These heuristics often lead to biases. People rely on the self to predict similar others, which leads to a projection bias (cf. Ames, 2004a; Hoch, 1987; Van Boven et al., 2003). They rely on stereotype information to predict dissimilar others, which leads to biased predictions if the target does not correspond to the stereotype (cf. Judd & Park, 1993; Madon, Guyll, Hilbert, Kyriakatos, & Vogel, 2006). Furthermore, people base predictions about the emotional reaction of the self and someone else on intuitive theories which leads to the impact bias (cf. Igou, 2004). These findings show that nearly all strategies people use to predict others lead to biased perceptions. However, we would like to argue that using simple mental strategies is not necessarily detrimental and that biased perceptions are not necessarily poor perceptions.

The use of heuristics is known to be efficient in that it requires little mental effort (Fiske & Taylor, 1991). People use projection and stereotypes to predict others because these sources of information are generally readily accessible (Ames, 2004). Often no individualized information is available and heuristics are the only source of information. For example, in the case of predicting the reaction of an average student to missing the train, one could try to recall occasions in which one witnessed the reactions of a student to
missing the train. This strategy requires a lot of effort and maybe impossible to apply if one has no memory of the reaction of a student missing the train. Heuristics are a good source of information in this case. For example one could use the self as a proxy and generalize one's own reaction to others (e.g., “I hate missing my train and tend to get very angry. Others will probably feel the same.”). Or, one could rely on intuitive theories about how others react in general (e.g., “Nobody likes to miss the train, so the average student will dislike it, too”). These heuristics are efficient (i.e., they save mental and motivational resources) and may, under certain conditions, even lead to accurate predictions. If the target is similar to the self, the target's reaction will probably be similar to one’s own. Because people tend to befriend others who are similar to them (Byrne, 1971), it is likely that most people around us are similar to us and that projection will lead to accurate predictions (cf. Hoch, 1987). Furthermore, our results from Chapter 3 suggest that projection or shared intuitive theories can lead to agreement and understanding between people. Using heuristics to predict others is therefore not only effortless and straightforward but often even functional in that it may lead to increased accuracy in social prediction.

Implications for research on emotions. In two of the three empirical chapters we let people predict their own and others’ emotional reactions. These emotion predictions can be viewed as a special case of person perception. As revealed by research on affective forecasting, people are biased in their predictions about their own emotions because they lack insight into their emotional reactions (Wilson & Gilbert, 2003). Because insight into the processes that guide our emotional life is limited, predictions about others’ emotional futures are more difficult than predictions of others’ preferences and people tend not to learn from past experiences (van Dijk, Finkenauer, & Pollmann, in press; Wilson et al., 2001). Nevertheless, predictions about future emotional states are very common and an important tool in decision making (Wilson & Gilbert, 2005). For example, decisions about which job to take or which dish to order in a restaurant, are based on forecasts of which decision outcome will elicit the most positive feelings. It is likely that, when asked for advice by a friend in a decision making situation, people base their advice on forecasts of which outcome will elicit the most positive feelings in the friend. For example, if a friend asks for advice on which job to take, one may advice to take the better paying job because one thinks that more money will make the friend happier (this is especially likely to happen
when one attaches great value to good salary oneself, see Chapter 2). Predictions about others’ future emotional states can therefore be an important tool in social situations. Our research provides a first indication of the strategies people use to predict others’ emotional states. We showed that the predictions are not very accurate; indicating that predicting others’ emotions may be more difficult than predicting others’ preferences.

This notion is further supported by research on emotional perspective taking that proposes that people’s predictions about others emotional states is difficult because it involves two steps (Van Boven et al., 2003; Van Boven et al., 2005). First, people have to imagine themselves in an emotional situation while they are (most likely) in a different state. Subsequently, they imagine how the other person differs from the self and correct their prediction accordingly. Research shows that people make mistakes in both steps, leading to biased predictions of how others are influenced by their emotions (Van Boven et al., 2005). Predicting others’ emotions and the influence of these emotions on behaviour both involve complex cognitive processes that are prone to biases. Researchers on person perception should take this special status of emotions into account when assessing people’s predictions about others’ emotions.

Implications for personal relationships. Our finding that people’s perceptions of others are biased also has important implications for personal relationships. People tend to say “I know how you feel” very easily, but our research shows that people often do not know how the other feels. For most people there is a discrepancy between how well they think they know others and how well they actually know others (Swann & Gill, 1997). To reduce this discrepancy people should realize that their perception of others is often biased. People tend to assume that others feel like they do, but even similar others can have different feelings and preferences than oneself. For example, even if Monique is a big fan of board games and likes to play no matter whether she wins or loses, she should be cautious to project these feelings onto others. Some people hate losing and playing board games may be very upsetting for those others. Simply projecting her own preferences onto these others and convincing them to play may then lead to unpleasant interactions. Because self-perceptions and other-perceptions are based on different sources of information, there can be a discrepancy between our view of others and their view of themselves (Pronin, 2008). Thus, every once in a while one should perform a reality check in order to make sure that one’s own view of others’ preferences and feelings is not too different from the others’
actual preferences and feelings. Although projection can be a useful tool, simply asking about the other's feelings and actually listening to the answer will most likely put more truth in the sentence “I know how you feel”.

On the other hand, our research also shows that saying “I know how you feel” even when actual understanding is low, can be beneficial for the relationship. In our forth chapter we show that simply having the feeling that someone understands you can enhance satisfaction with the relationship. Furthermore, in a study that uses the dataset described in the forth chapter we investigate how autistic traits relate to relationship processes (Pollmann, Finkenauer, & Begeer, 2008). People with autistic traits are less empathic and we argued that this may reduce understanding of the partner. We therefore investigated whether people with autistic traits are less accurate in their partner perception and experience less understanding of and by the partner. The results of that study show that, in a non-clinical population, autistic traits are not related to accurate partner knowledge, but that people with more autistic traits perceive less understanding with their partner. This study thus also shows that it is mainly the perception of understanding that is related to relationship well being. It seems that in a relationship people's perception of understanding is more important than actually being understood. It may therefore be a good advice to communicate understanding towards the partner more often, even if this understanding might not be perfect.

Limitations and Suggestions for Future Research

Degrees of freedom of the predicted situation. The studies presented in this dissertation include experimental designs as well as longitudinal designs, designs that ask people to make predictions for general others (e.g., the average student) or specific others (e.g., one's spouse), and designs that ask people to make predictions for specific situations (e.g., failing an exam) or more general traits (e.g., the spouse's extraversion). These different designs allowed us to draw more general conclusions about how people predict others. At the same time it makes it more difficult to compare the studies. For example, it could be the case that people use different strategies when predicting more specific situations compared to more abstract traits. In a specific situation the “degrees of freedom” for the prediction are limited. That is, in a situation that does not allow for many variations in behaviour there are only a limited number of behavioural options to choose from for the target and predictions to choose from for the judge. For example, walking down the stairs
Chapter 5

does not allow for many variations. Most people do it on their feet, using the steps. Failing a test is another example of a situation with few degrees of freedom. Most people will experience more negative than positive emotions when failing a test (cf. Wilson & Gilbert, 2003). For predictions with few degrees of freedom the use of simple intuitive theories about how people in general will react may be a good strategy. The limited degrees of freedom cause most people to react according to the intuitive theory. Therefore variations in these predictions will be small. On the other hand, when predicting more general traits, there are a lot of degrees of freedom for the prediction. For example, one’s partner can be anywhere on the dimension of extraversion, he or she could be very introvert or very extravert, and often we may have memories of him or her being both introvert (e.g., at the beginning of a party with few friends) and extravert (e.g., after a couple of beers with friends in a bar) (cf. Sande et al., 1988). In this case the use of more personalized information about the partner would be a more appropriate strategy to make a prediction. Our studies do not allow us to investigate whether people use different strategies depending on the degrees of freedom of the situation. Nevertheless this is an intriguing question which future research can answer by systematically varying the degrees of freedom of a situation and by then comparing people’s predictions.

Predictions in controlled versus real life settings. The studies of the present dissertation used experimental and correlational designs to answer different questions. Depending on the question we chose the design that was best suited to answer the question. Nevertheless, it may also be of interest to answer the same questions with different designs. For example, in Chapter 3 we investigated how people predict others’ emotions in an experimental setting. As we noted in the discussion of that chapter, it would be worthwhile to investigate how people actually talk about upcoming events and affective forecasts. We hypothesized that when people talk about their affective forecasts and find out that their views correspond to each other, this should enhance understanding. But only if we observe this behaviour in a real-life setting are we able to test this hypothesis. It is a challenge for future research to investigate this communication of affective forecasts and its implications for the development of (close) relationships.

Similarly, it would be interesting to investigate the findings of Chapter 4 in an experimentally controlled setting. We found that actual knowledge and subjective understanding are unrelated and that only the latter is related to relationship satisfaction.
We cannot be sure, however, whether more subjective understanding leads to more relationship satisfaction or more relationship satisfaction leads to more subjective understanding. In an experimental setting one could manipulate subjective understanding for example by letting people focus on situations in which they know their partner very well (e.g., at home) or on situations in which they know their partner less well (e.g., at work). Afterwards one could measure whether this manipulation of subjective understanding influences relationship satisfaction. This method would provide more insight into the processes that make a relationship work. If subjective understanding influences relationship satisfaction it may be beneficial to communicate understanding towards the partner as often as possible.

Closing remarks

People constantly try to predict the feelings and thoughts of others. Research has shown that perceptions of others are often biased. In this dissertation we aimed to show that biased perceptions do not necessarily mean inaccurate perceptions. Even if our perception of others does not perfectly match their own perception, if we communicate our efforts this may already help enhance understanding between people. This is nicely illustrated in the picture below. The man on the left tries to understand what dog the man on the right is talking about. Although he pictures the dog very differently from the man on the right, they both think they are talking about the same dog and are happy to do so. We will probably never reach perfect understanding with the ones around us, but apparently we don’t need perfect understanding to be happy. All we need is agreement.
"I've got a new dog."

"Really? A big one?" "No, not that big."

"Does it have long hair?" "No, it has short hair."

"And which colour?" "Black and white."

"What a nice dog!" "Yeah, isn't it?"
Endnotes

2.1 Because in none of the three studies any participant guessed correctly what the purpose of the experiment was, the results of this question are not further discussed.

2.2 This technique is also applied in the two other studies reported in this paper.

3.1 To take statistical interdependence into account, we first estimated the variance explained on the dyad-level using a hierarchical linear model approach. No reliable effects of the dyad level in explaining variance for the dependent measures emerged. Data in all three studies are hence analyzed on the individual level.

3.2 We also conducted an ANOVA including order as a between-subject factor. Because there was no main effect of order of prediction or interaction effects with the other factors this factor was excluded from the analyses.

3.3 For some participants it was not possible to calculate the across-item correlation because they gave the same response on every item. This is why degrees of freedom vary across analyses.