6 Discussion

Who is perceived as being wise and how are impressions of an advisor's wisdom formed? The present study used an experimental person perception paradigm to investigate components of the wisdom prototype and processes of wisdom attributions. A video-based person perception paradigm was developed in which different levels of wisdom-prototypical characteristics were varied. Participants watched silent videos of an advice-giving person listening to another person introduced as seeking advice. After watching the video, participants read a brief excerpt that was introduced as the response of the advice-giver. The dependent variable in this study was the level of wisdom that was attributed to the advice-giving person.

To investigate the *components* of the wisdom prototype that influence wisdom attributions, three characteristics of an advice-giving person were varied. These were selected from extensive work on prototypical characteristics of *ideally* wise persons (Baltes & Smith, 1990; Baltes & Staudinger, 2000; Clayton & Birren, 1980; Holliday & Chandler, 1986; Staudinger et al., 1998; Sternberg, 1985). Specifically, these personal characteristics were the advisor's level of *intellectual excellence*, as indicated by a high level of wisdom-related knowledge reflected in the advice given, *interpersonal skill*, as indicated by the advisor's non-verbal empathic listening behavior, and *experience,* as indicated by the advisor's chronological age.

This study also investigated social-cognitive *processes* involved in forming an impression of another person's wisdom. The role of activated prior knowledge about wisdom and wise persons for the attribution of wisdom to a specific person was investigated: Half of the participants received a wisdom-cueing instruction, namely, to think about wisdom and wise persons, before watching and reading the stimulus material. It was expected that cueing the concept of wisdom would facilitate the recognition and use of the three wisdom-prototypic personal characteristics in the attribution of wisdom to an advice-giving person.

In addition, the videos were presented repeatedly to examine the unfolding of the wisdom attributions. Specifically, it was studied whether the quality of an advisor's wisdom-related knowledge as expressed in his or her verbal advice required more time and effort to be processed effectively than this advisor's more visible core characteristics of wisdom (i.e., his or her chronological age and nonverbal listening behavior).

6.1 Characteristics of an Advice-Giver

6.1.1 Wisdom-Related Knowledge

The study found that advisors who demonstrated a higher level of wisdom-related knowledge in their advice were perceived as being wiser than advisors giving a less wise piece of advice. The advisor's level of wisdom-related knowledge was

operationalized by constructing two advice texts differing in level of wisdom-related knowledge according to the definition provided by the Berlin Wisdom Paradigm (Baltes & Smith, 1990; Staudinger et al., 1994; see Table 5).

This study shows that the definition of wisdom-related knowledge as provided within the context of the Berlin Wisdom Paradigm is in accordance with lay-persons' definitions of wisdom: In their lexical prototype study, Staudinger et al. (1998) had provided first evidence that characteristics such as procedural knowledge (e.g. „thinks carefully before making decisions") and contextualism (e.g. „knows about the importance of different life domains") are perceived by lay persons as typical of wise persons. The present study extends this research by showing that lay people also use these features when attributing wisdom to a specific person. In an earlier study, Hira and Faulkender (1997) had used read-aloud wisdom protocols of the Berlin Wisdom Paradigm as a stimulus material for judgments of wisdom. These four protocols did not, however, vary in the level of wisdom-related knowledge (3.5. to 4.5).

In this study, the effect of wisdom-related knowledge on wisdom attribution was not very large. However, it should be noted that very short texts were used as stimulus material (111 words). The present study represents a first step in the investigation of the importance of wisdom-related knowledge in the perception of an advisor as being wise.

Future person perception studies on wisdom should incorporate the centrality of knowledge and investigate in more detail which aspects of wisdom-related knowledge contribute to the attribution of wisdom to a person. For example, different aspects of wisdom-related knowledge could be varied in more detail. Within the Berlin Wisdom Paradigm, basic and meta criteria are distinguished. Future studies could, for instance, investigate the role of basic- versus meta-criteria in perceptions of wisdom. Will a person who displays rich levels of factual and procedural knowledge be perceived as being wise if he/she does not at the same time express high levels of value relativism, life-span contextualism, or awareness of the uncertainty of life?

In Chapter 1, it was shown that different scholarly approaches suggest different definitions of wisdom. For example, some wisdom theories have emphasized the recognition of the fallibility of knowledge (Arlin, 1990; Kitchener & Brenner, 1990; Meacham, 1983; 1990; McKee & Barber, 1999), whereas others have focused on the identification and acceptance of *contradiction* (Kramer, 1983; Kramer & Woodruff, 1986). The relative importance of these aspects of wisdom could be tested in person perception studies.

Some theories suggest that wisdom involves the ability to find a good solution to a problem (e.g., „has the unique ability to look at a problem and solve it",

Sternberg, 1985)[11]. In the present study, no specific solution to the life-problem was provided. The advice texts for this study were constructed using the Berlin Wisdom Paradigm criteria which focus on the ways people address and think about a problem rather than on the solution to these life-problems (see also Ericsson & Charness, 1994). Future studies may, however, want to explore whether the attributed level of wisdom depends on the advisor giving a *specific solution* or whether perceivers focus more on the quality of *wise reasoning*.

Finally, wisdom attributions may depend on the outcome of a specific situation. As Bluck and Glück (2004) have shown, lay persons usually report situations that had a negative eliciting event and resulted in a positive outcome when they are asked to give examples of their own wise behavior. This suggests that in lay persons' perceptions, the *consequences* of wise behavior or advice are important in determining the level of wisdom attributed to an action or a person. In the case of advice-giving, for instance, the advice might be perceived as helpful or as interfering and may be followed or not (Goldsmith & Fitch, 1997). In this study, whether the advice given was actually perceived as being helpful by the advice-seeker and whether it helped to resolve a difficult life-situation remained an open question, thus avoiding a conflation of outcome evaluation with advice-giving.

[11] Some authors suggest that wisdom is always oriented towards the benefit of oneself and others (see Sternberg, 1998). This prescriptive nature of wisdom (see also Kekes, 1983) is also emphasized by Freund and Baltes (2003; Baltes & Freund, 2003) who suggest that the life management strategies of selection, optimization, and compensation (SOC) provide the means for effective life management, while wisdom determines the selection of *desirable* goals and means.

The present study provides first evidence that wisdom-related knowledge, as defined within the Berlin Wisdom Paradigm, is used as a cue to judge a person as being wise. Future studies should explore the role of other characteristics of wisdom-related knowledge and also try to determine the relative importance of different aspects of wisdom-related knowledge in attributions of wisdom. For instance, some aspects of wisdom-related knowledge (e.g., factual or procedural knowledge) may be more easily recognized and used for wisdom attributions than others (e.g., value relativism, contradiction).

6.1.2 Empathic Listening Behavior

As predicted, advice-givers who listened in a positive, empathic way were perceived as being wiser than advisors who listened in a negative, non-empathic way. The difference of approximately one standard deviation between these conditions indicates that this effect was very strong (see 6.3.2 for a discussion of the effect sizes of the different advisor characteristics).

For this study a video-based person perception paradigm was developed in which lay actors demonstrated either positive, empathic or negative, non-empathic listening behavior. The study presented here is the first person perception study on wisdom that investigated the effect of one *specific nonverbal interpersonal behavior* (empathic listening behavior) on wisdom attributions. However, demonstrating

nonverbal empathic listening behavior is a very basic skill that may be necessary, but not sufficient for the attribution of high levels of wisdom to a person.

Several theories emphasize that wisdom involves the *integration* of high levels of wisdom-related knowledge and high levels of interpersonal skills (see Ardelt, 2003; Baltes et al., 2002; Baltes & Staudinger, 2000; Clayton & Birren, 1980; Holliday & Chandler, 1986; Kunzmann & Baltes, 2003a; Sternberg, 1985). The present study shows that participants perceived advisors who were high or low on both wisdom-related knowledge and listening behavior as being more *consistent* than advisors who were high in one facet and low on the other. This suggests that lay persons perceive wisdom-related knowledge and empathic listening behavior to be naturally associated with each other. Nevertheless, no interaction between wisdom-related knowledge and empathic listening behavior was found which suggests that the presence of one facet does not change the perception of the other factor.

However, wisdom-related knowledge and empathy may be naturally associated with each other: Kunzmann and Richter (in prep.) have demonstrated that individuals with higher levels of wisdom-related knowledge (as measured by the Berlin Wisdom Paradigm) are better able to recognize other persons' emotions (empathic accuracy) than individuals with lower levels of wisdom-related knowledge (Kunzmann & Richter, in prep.; Richter, 2004). These findings are in accordance with the notion that empathic listening behavior may be a behavioral

manifestation of wisdom. However, future research is needed to investigate the role of empathic listening behavior as an antecedent, correlate, or consequence of wisdom-related knowledge.

6.1.3 Age of an Advisor

In this study, older advisors were perceived as being wiser than younger advisors. No interactions between age and listening behavior or wisdom-related knowledge were detected, indicating that an advisor's age facilitates the attribution of wisdom across a variety of conditions.

In the newly developed video person perception paradigm four older and four younger lay actors acted as advisors. This study extends previous research on the relationship between age and wisdom in lay persons' perceptions. The results of previous studies on the role of age in attributions of wisdom revealed inconsistent findings. Lexical studies have shown some indication that age and experience are seen as being somewhat typical for wise persons (Clayton & Birren, 1980; Holliday & Chandler, 1986; Sternberg, 1985). In addition, persons who are older than 50 years are more likely to be nominated as being wise than younger persons (e.g., Perlmutter et al., as cited in Orwoll & Perlmutter, 1990; Denney et al., 1995). Person perception studies have not revealed consistent findings regarding the role of age in perceptions of targets as being wise (see Defilippo, 1996; Knight & Parr, 1999). One study showed

that – based on the same behavioral description – older persons were perceived to be wiser than younger persons (Knight & Parr, 1999); some studies failed to find this effect (Defilippo, 1996; Farrell, 1999); and another study found an age-by-gender interaction (Hira & Faulkender, 1997) indicating that the older man and the younger female were perceived to be wiser than the older woman and the younger man.

The present study tried to address some of the methodological issues that are relevant in person perception studies. The first issue concerns the quality of the stimulus material. The present study used videos instead of vignettes. Vignettes are short verbal descriptions of persons in which the age of the target person can be varied while simultaneously controlling for other differences (see Defillippo, 1996; Farrell, 1999; Knight & Parr, 1999). However, the verbal description of a person's age is different from the perception of a „real" aged person. Research on social cognition has shown that *visible* personal characteristics such as gender, race, and age activate categorical knowledge and stereotypes very easily (Brewer, 1988; Fiske & Neuberg, 1990; Fiske & Taylor, 1991). In verbal descriptions, this sensual image of an older face may well not be fully activated and therefore categorical knowledge about the person may be less accessible.

This study used a video-based approach to investigate the perception of „real persons" in a context that was more ecologically valid (see McArthur & Baron, 1983). While such a video-approach was used earlier by Hira and Faulkender (1997), they

did not control for possible differences between the older and younger targets' personalities, which might explain the interaction between age and gender that they found. More research is needed to investigate further the conditions in which – using different stimulus materials – older persons are perceived as being wiser than younger adults.

The second methodological aspect is the application of between-subjects versus within-subjects designs (see Kogan, 1979). As meta-analytic work on age-stereotypes shows (see Kite & Johnson, 1988), age-related effects are more likely to be found in studies using within-subjects (e.g., Hira & Faulkender, 1997; Knight & Parr, 1999) rather than between-subjects designs (e.g., Farrell, 1999). In this study, a between-subjects design was used, with each participant evaluating only one target to ensure that participants would compare the advisor's performance to their own *ideal conception* of a wise person rather than to the behavior of other advisors with differing personal characteristics.

A third key issue in person perception studies on age and wisdom is the question of situational context. Knight and Parr (1999) and Defilippo (1996) did not provide a specific context for the perception of persons as wise, while in the vignettes Farrell (1999) used, the target person reported a stealing child to a shop-keeper. In Hira and Faulkender's study (1997) the actors read responses given to life-planning problems from the Berlin Wisdom Paradigm without any further contextual

information. In the present study, an advice-giving context was presented that referred to a difficult life-problem that was not explicitly specified because it may depend on the specific life-problem or situational context whether age is seen as a diagnostic factor for the attribution of wisdom. Reporting a stealing child to a shop-keeper may not require as much life-experience as deciding how to react to a fundamental issue of life-planning, life-management, or life-review.

Finally, a fourth methodological issue that needs to be addressed in person perception studies on the role of age in the perception of advisors as being wise is the operationalization of „young" versus „old" age.

In the present study, the younger advice-givers ranged from 25 to 28 years and the older advisors were between 60 and 67 years of age. In Hira and Faulkender's video study, on the other hand, the „older" female was 48 years old, whereas the older male was 57 years old. Knight and Parr (1999) showed that middle-aged targets (aged 38-50 years) were perceived as being less wise than older adults (58-70 years). Therefore, the „older" woman in Hira and Faulkender's study may have been „too young" to be perceived as being wise.

The present study ensured that the older advice-givers were older than sixty. Interestingly, participants' estimations of the targets' age were much lower (see Table 7). This finding also illustrates that verbal descriptions of a target's age may have

some methodological disadvantages compared to real life faces. It may well be that the verbal description of a fictitious target person as „Chris, 71" (as in Farrell's study) activates the image of a much older person than the face of a „real" Chris, aged 71 years.

Gerontologists differentiate the so-called third age from a fourth age (see Baltes, 1997; Laslett, 1991; Neugarten, 1974; Suzman, Willis, & Manton, 1992) and suggest that the maintenance of high levels of psychological functioning is more difficult in the fourth compared to the third age (see for instance Gerstorf, 2004; Smith & Baltes, 1999). This distinction between third and fourth age is also reflected in lay persons' perceptions of age. Positive person descriptions of older persons are associated with young-old rather than with old-old adults (Hummert, 1990). Heckhausen et al. (1989) showed that participants assumed that wisdom ends in the mid-eighties (M = 85.8 years). This suggests that the assumed relationship between age and ascribed wisdom may not be linear.

In the present study, young-old advice-givers were the targets of wisdom attribution. There may be an *ideal* age for the perception of a person as being wise, located in late middle-age or young old-age. It remains an open question whether a middle-aged person will be perceived as being wise in the present context of an advice-giving situation. Given the results presented here, it would also be interesting to investigate whether a fourth-age person, who may show signs of frailty, would

nevertheless be perceived as being wise when he or she demonstrates a high level of wisdom-related knowledge and good listening behavior. The potentials of very old age seem to be very limited in terms of plasticity and cognitive performance (see Singer, Lindenberger, & Baltes, 2003). Yet there surely are certain individuals who are able to preserve a very high level of functioning — also in terms of intellectual functioning — as they reach a very old age. The investigation of these unique and special cases of successful aging (see Baltes & Baltes, 1990; Brandtstädter, 1998; Freund & Baltes, 2002; Rowe & Kahn, 1987; 1997) may require an idiosyncratic rather than a nomothetic scientific approach that is not interested in the average or the *general*, but rather in the exception or the *unique*.

The present study does not provide new insights on the issue of *why* older persons are seen as being wiser than younger adults. Age per se is not an explanatory variable (see Baltes, 1987; 1993; 1997; Baltes & Goulet, 1971). Age may, however, be seen as a cue to a person's level of life-experience. People who experience difficult life transitions, such as caring for a parent who recently received an Alzheimer's diagnosis, report network partners who have experienced similar life situations as most emotionally supportive (e.g., Suitor, Pillemer, & Keeton, 1995). This similarity in experience also accounts for more explained variance in emotional support than similarity in so-called structural aspects such as age or gender (Suitor et al., 1995).

One of the reasons why older persons may be considered to be good advisors may be the assumption that their knowledge is based on different and possibly more reliable sources than a younger person's knowledge system. Some developmental theories conceptualize the life cycle as a structured succession of normative events such as the social clock model, the notion of developmental tasks (see Havighurst, 1972), psychosocial crises (see Erikson, 1959; 1982), or life structure (Levinson, 1986). The normative structure of the life-cycle is also reflected in lay persons' life scripts, shared expectations within a given culture about the timing, order, and contents of major life events, such as graduation, first job and marriage (Berntsen & Rubin, 2004).

Future studies should explore the domains in which older persons are seen as experts. Potentially a person's chronological age may be especially relevant for the perception of a person as wise in contexts that require expertise in developmental change. One reason why older persons may be seen as being wiser may be their expertise in the management of (normative) age-associated transitions because older persons have had more chances to personally witness the developmental trajectories of life-problems, and the long-term developmental consequences of life decisions made early in life. While the present study descriptively demonstrated the effect that older persons are perceived as being wiser than younger persons, the explanation of this effect is both the more interesting and far more challenging endeavor.

This study supports Meacham's social constructionist view on wisdom that older people may not necessarily *be* wiser, but they might be *perceived* as being wiser on the basis of the same performance (Meacham, 1990). This study advocates that a social constructionist view can help to understand the inconsistencies between findings of implicit versus explicit approaches of wisdom: Lay persons' theories are usually less refined and less elaborated than scholarly theories (Baltes, 2004). Moreover, the threshold for the recognition of a certain behavior or product as being wise may be lower in lay-persons' perceptions of wisdom (Baltes, 2004).

On the other hand, lay persons may use different cues for the ascription of wisdom than those suggested in past studies on wisdom. The present study demonstrated that empathic listening behavior is a very important cue for perceivers to attribute wisdom to a person. Another potential reason why older persons may generally be perceived as being wise and are nominated as wise might be their greater willingness to listen to the life-problems of their close network partners and to react in an emotionally supportive manner because they prioritize the emotional quality of interactions over other social interaction goals (Carstensen, 1993).

This motivational shift is reflected in Erikson's concept of *generativity* (Erikson, 1959; 1982). Generativity is defined as „concern in establishing and guiding the next

generation" (Erikson, 1962, p. 267). Older compared to younger adults may be more motivated to share their knowledge with others by advising and guiding them.[12]

The present study's finding that young adults consider older persons to be wiser and to be better potential advice-givers than people their own age group also may have practical implications. The social construction of „wisdom of the aged" (*Altersweisheit*), including the societal expectation of age-related wisdom, may provide opportunity structures and roles that allow persons to age successfully and productively (see M. Baltes & Montada, 1996). Expectations can have important effects on performance in different domains (see Rosenthal & Jacobson, 1968 for a classical example of the role of expectations). Becca Levy, for instance, has demonstrated in her research on stereotype-threat that negative stereotypes of aging have several negative consequences for older people, including lower cognitive performance and increased cardio-vascular stress. In contrast, positive aging-stereotypes promote positive outcomes (Levy, 1996; Levy et al., 2000; see also Bargh, Chen, & Burrows, 1996). If trust in older persons' wisdom would motivate people to consult older persons for advice, this might facilitate maintenance or even growth in wisdom-related performance in older adults. The dynamic relationships between interpersonal expectations, actual interaction, wisdom-related performance, and

12 McAdams and de St. Aubin (1992) have investigated the relationship between self-assessed generativity and age, but were unable to detect age-differences in generativity.

perceived wisdom-related performance will be an interesting avenue for future research.

6.2 Processes of Impression Formation

The second focus of the study presented here was to address the social cognitive processes associated with the formation of an impression of a person as being wise. Two aspects were investigated: First, it was explored whether cueing the general concept of wisdom would facilitate the recognition of the three proposed wisdom-related capacities. Second, it was investigated whether repeated exposure benefits the processing of the verbally presented wisdom-related knowledge.

6.2.1 Wisdom Cueing Facilitates Recognition of Prototypical Characteristics

The conscious or unconscious activation of a person category, such as a stereotype, has been shown to facilitate the attribution of category-typical attributes to a *specific* target person (Blair & Banaji, 1996; Devine, 1989; Higgins & Brendl, 1995; Higgins et al., 1977; Lepore & Brown, 1997; Macrae et al., 1994; Srull & Wyer, 1979; 1980). In the present study, this general effect was used to demonstrate that cueing the concept of „wisdom and wise persons" activates knowledge about the three selected wisdom prototypical facets and facilitates the recognition of these capacities in a specific person. Half of all participants were instructed to think about wisdom and wise persons before being exposed to the stimulus material. It was expected that

those participants whose wisdom concepts were cued would be more sensitive to the configuration of the three selected wisdom characteristics and attribute different levels of wisdom to participants with more versus less wisdom-typical characteristics.

This study's results support that hypothesis: Participants who were asked to think about wisdom before seeing the stimulus material attributed more wisdom to advice-giving persons who showed all three wisdom-prototypic characteristics (i.e., resembled the prototype of a wise person) than to advisors who lacked one of the prototypic characteristics. Participants whose wisdom concepts were not cued, on the other hand, did not attribute different levels of wisdom to advisors who showed 2 versus 3 prototypic features. This finding suggests that cueing the general concept of wisdom increases the salience of the three selected wisdom-prototypic characteristics and facilitates the recognition of wisdom and the distinction of wiser from less wise advisors. It may be that cueing of the general category of wisdom helps to integrate the complex information that was provided in the video and to select the information (i.e., personal characteristics) that is most diagnostic to make wisdom attributions.

6.2.2 Repeated Exposure to Facilitate Recognition of Wisdom-Relevant Knowledge

The present study included a „simulation" of repeated interactions with a potential advice-giver across time. The three selected characteristics of the advice-giver that were experimentally manipulated differed in their visibility. The advisor's

age and listening behavior were shown in the video while the wisdom-related knowledge was presented as a written text. As outlined earlier, verbal text is more complex and less redundant than either nonverbal behavior or physical age (see Gilbert & Krull, 1988).

To simulate repeated interactions with a potential advice-giver, participants had the chance to watch the stimulus materials four times. Participants evaluated the advisor's level of wisdom after the first and after the fourth exposure to the stimulus material. A significant interaction between repeated exposure and wisdom-related knowledge revealed that the effect of the manipulation of level of wisdom-related knowledge increased over time. This suggests that (compared to other target characteristics such as age or non-verbal listening behavior) wisdom-related knowledge takes more time and effort to be used for the attribution of wisdom to a specific target person.

Wisdom attributions decreased across time for advice-givers who demonstrated a low level of wisdom-related knowledge, whereas wisdom-ratings for those advice-givers who showed a high level of wisdom-related knowledge remained stable. While the recognition of a high level of wisdom-related knowledge did not improve through repeated exposure, participants who saw an advisor demonstrating a low level of wisdom-related knowledge benefited from the opportunity to read the answer again. One possible explanation for this differential

pattern regarding the two levels of wisdom-related knowledge may be the assumed diagnosticity of positive and negative behaviors in the domain of competence. In the intellectual domain, positive behaviors are seen as being more *diagnostic* for a person's true level of competence than negative behaviors (Skowronski & Carlston, 1987; Wojciszke, Bazinska, & Jaworski, 1998). This interpretation is consistent with the finding that participants who saw an advisor expressing a low level of wisdom-related knowledge indicated after the experiment that the answer of the advisor influenced their wisdom attributions more than did participants who saw an advisor who gave a wiser response. Participants who saw an advice-giver who demonstrated a high level of wisdom-related knowledge in his advice might have been more certain in their ratings to begin with than participants who evaluated an advice-giver who demonstrated a low level of wisdom-related knowledge. This finding suggests that it may be more difficult to fully comprehend unwise advice than to understand wise advice. This interpretation would be consistent with the claim that wisdom is easily recognized in others (see Baltes & Staudinger, 2000).

However, it should also be noted that in the present study both the high and low wise texts were matched with respect to length, comprehensiveness, and abstractness, which might be an unrealistic condition in real life. Moreover, the ease of the recognition of wisdom-related knowledge may also depend on different

perceiver characteristics, such as the perceiver's own level of wisdom-related knowledge or the self-relevance of the topic (see Chapter 6.3.3).

The interaction between repeated exposure and wisdom-related knowledge was qualified by a triple interaction between repeated exposure, wisdom-related knowledge, and wisdom cueing. Only participants whose wisdom concepts were *not* activated showed the hypothesized interaction between repeated exposure and wisdom-related knowledge: Wisdom attributions for the high-level wise response texts increased across trials and wisdom attributions for the low-level wise response decreased across trials. Wisdom attributions of participants in the wisdom cueing condition remained unchanged. As outlined earlier, we expected participants in the wisdom-cueing condition to be more sensitive to the configuration of the selected wisdom prototypic features. Therefore, it is not surprising that those participants who thought about wisdom benefited less from the repeated exposure to the stimulus material. The repeated exposure did not increase the salience of wisdom-related knowledge for their judgments, because it was already salient at the first exposure. This interpretation is supported by the finding that participants in the wisdom cueing condition indicated that they perceived the response text to be more influential on their evaluation of the advisor than participants in the no-cueing condition.

No interaction between repeated exposure and age of an advice-giver or listening behavior was found. This is in accordance with the notion that the age and listening behavior are both highly visible and highly redundant features of an advisor and therefore are used as cues for the attribution of wisdom already at the first exposure.

No interactions between repeated exposure, listening behavior, and wisdom-related knowledge were found. This indicates that repeated exposure benefited the comprehension of an advisor's wisdom-related knowledge independent of the advisor's other personal characteristics.

The present study shows that research on the perception of advisors as being wise should not only focus on the *components* of the wisdom prototype that influence wisdom attributions, but also on the *social cognitive processes* that lead to wisdom attributions. The study shows clearly that wisdom attributions change across time and that different personal attributes are processed differently depending on their visibility or complexity. Wisdom-related knowledge needs more elaboration to be processed effectively than age or nonverbal listening behavior. This is in accordance with previous studies on persuasion that show that the content of the message is often less important than peripheral aspects such as the credibility of the source or surface features such as message length (see Chaiken, 1980; Chaiken et al., 1996; Petty & Cacioppo, 1981; 1986; Cacioppo & Petty, 1985; 1989). From a developmental

perspective, this study suggests that attributions of wisdom may change as a perceivers gain more experience with a target person through repeated interactions.

6.3 Limitations

Necessarily, conclusions that can be drawn from a single experiment are limited. In the following section, several methodological and theoretical limitations of the present study will be discussed and interesting routes for new studies will be outlined.

6.3.1 The Caveats of a Video-Based Approach: Comparability of Older and Younger Targets

One major goal of the present study was to address some of the methodological issues that were raised in earlier studies. Specifically, a video-based paradigm was developed in which older and younger lay actors played the roles of empathically or non-empathically listening advisors. Through its use of actual behavior rather than verbal descriptions of behavior, this method clearly has the advantage of being ecologically more valid than a vignette approach. There are also some disadvantages, however.

The younger and older advice-givers were selected in pilot studies to express the listening behavior in the desired quality and to be comparable to each other in terms of several personality dimensions. Because only 5 advisors per age and gender formed the initial sample, the opportunity to match the final 2 younger and older

men and women on all personality dimensions was limited. Age-differences in five personal characteristics were found.

The implications of these differences are unclear. From this study it can not be concluded whether the found age-differences in the reliability and self-assertiveness reflect inter-individual differences between the selected young and older targets of whether they reflect actual age-related differences that are inevitable if targets are representative for their respective age-group. It may well be that older persons in general might be perceived as being wiser because they – in general – are perceived as being more reliable and more self-assertive that young adults. „Chronological age is an organismic, assigned variable which cannot be varied, replicated, and arbitrarily assigned as one would expect form a good experimental variable. Moreover, it is functionally impossible to vary age while holding other age-related variables constant." as Baltes and Goulet (1971, p. 151) have pointed out.

Future studies should address this issue more carefully. First, larger samples of older and younger lay-actors should be used and be matched on different personal characteristics. Second, the reasons for the perception of older persons as being wiser than younger persons need further investigation. For instance, age could be a proxy for experience and the age-effect might disappear when both younger and older adults are equated with respect to their levels of experience (which might be possible in certain domains, but not in others).

Experience is, however, a fuzzy concept. It would be very interesting to investigate which aspects of experience matter most for perceptions of wisdom: The broadness or richness of experience, the experiences of losses, closeness to death, or the experience of normative life-transitions? As suggested earlier, there may be domains in which older persons have knowledge that can only be gained through personal experience. Future studies should address whether the sources of knowledge play a role in the development and recognition of wisdom-related knowledge.

6.3.2 Experimental Operationalization of Wisdom-Related Knowledge, Nonverbal Listening Behavior, and Age

The three wisdom prototypic characteristics in the design of the present study were operationalized by contrasting two different levels that were designed to represent distinct cases of the continuum. This fact limits the conclusions that can be drawn from the study. First, because no medium level was included, it remains unclear whether the positive expression of each factor drives the main effect or whether the negative expression was the more powerful cue. According to some social-psychological theories, *bad is stronger than good* (Baumeister, Bratslavsky, Finkenauer, & Vohs, 2001). The nonverbal expectancy violations model (Burgoon & Hale, 1988) posits that the *violation of expectations* leads to a change in arousal which increases the salience of cognitions about the communicator and his behavior.

Conformity to communication rules, on the other hand, will „operate largely out of awareness" (Burgoon & Hale, 1988, p. 61). This model would suggest that with respect to the *ideal* of wisdom, the standards may be very high and any deviation from exceptional listening behavior would be perceived as a violation and recognized. This issue could be addressed in future studies to investigate whether wise persons are expected to behave in exceptional rather than ordinary ways.

The relationships between the experimental factors and attributed wisdom may be better represented by threshold models than by linear relationship models. For wisdom-related knowledge, a linear relationship between level of wisdom-related knowledge and attributions of wisdom seems to be likely. However, the specific relationships may also depend on the perceivers' ability to recognize different levels of wisdom. Especially when perceivers do not have a lot of wisdom-related knowledge, the differentiation between a high and a very high level of wisdom-related knowledge may be difficult.

In the case of non-verbal listening behavior, a threshold model seems to be the more appropriate model, given that previous studies in the field of nonverbal behavior have shown that medium levels of eye-contact, for instance, are not perceived to differ from high levels of eye-contact (e.g., Burgoon, Coker, & Coker, 1986). However, in the case of wisdom, it also may be that expectations for an advisor's behavior are higher than in other interactions.

With respect to the role of an advisor's age, it was outlined earlier that it remains an open question whether people's implicit theories of wisdom and age include an ideal age for wisdom or whether the relationship between wisdom and age is best represented through a linear, curvilinear, or threshold model. Future studies should include different levels of each factor.

The second caveat in the operationalization of two levels for each factor lies in the relative impact of each attribute on judgments of wisdom. The effect sizes for the main effects suggest that listening behavior is most important for the attribution of wisdom to a person. However, this conclusion is not justified. The effect sizes of wisdom-related knowledge, nonverbal listening behavior, and age can not be compared because the two levels of each factor were drawn arbitrarily from the each factor's continuum. They are neither comparable across factors in their extremity nor in their relative distance. It is questionable whether this issue can be resolved, yet a fine-grained analysis of different levels for each factor may be a way to approach this issue.

A third issue in the experimental design of the present study refers to the issue of the artificiality of laboratory tasks. Participants perceived advisors who showed a high level of wisdom-related knowledge in combination with negative, non-empathic listening behavior as inconsistent. Implausible conditions in experimental

social psychology lead to findings that have limited value for the explanation of behavior in situations outside of the laboratory.

Moreover, participants had to base their judgments of the advisor's level of wisdom on very little information about the target person. The findings regarding the role of easily visible personal attributes such as age and nonverbal listening behavior may be limited to contexts in which more in-depth information about a target person is lacking. It can be expected that in everyday contexts, the extended time frame of relationships that enable people to build up trust may be more relevant for the decision to consult a putative advisor than easily visible personal characteristics such as eye-contact and gray hair. The present study provides first evidence for this assumption. The repeated presentation of the stimulus material represents a simulation of repeated interactions with a potential advisor. The findings indicate that increased experience with an advice-giver indeed alters perceptions of wisdom: Perceivers take non-visible cues, such as knowledge more into consideration for their wisdom attributions after they had a chance to process them more often and potentially more deeply.

6.3.3 Caveats of the Repeated Exposure

Three possible caveats to the conclusions regarding the importance of repeated exposure for the comprehension of wisdom-related knowledge should be mentioned. First, the advisor's wisdom-related knowledge was always presented

after participants had been exposed to the video and possibly formed initial impressions of the advisor. Although this procedure may be seen as ecologically more valid, because people tend to see people before they interact with them on deeper levels, it may also be that in some cases a person's wisdom-related knowledge may precede other characteristics, for instance in the case of popular or historical figures.

Second, the presentation time of the wisdom-related knowledge was limited to 30 seconds. This was done to make sure that participants had the same time for the processing of the wisdom-related knowledge as they had for the nonverbal listening behavior.[13] The wisdom-response was, however, constructed by the author and members of the Berlin Wisdom Project to reflect high versus low levels of wisdom-related knowledge. The density of the wisdom-related knowledge reflected in this short paragraph may have been higher than in normal speech that may be characterized by more redundancies. It would be very interesting to investigate whether the findings regarding repeated exposure can be replicated with examples of wisdom-related knowledge taken from actual advice-giving situations.

A third issue to discuss is the question of self-relevance. Models of impression formation (Brewer & Feinstein, 1999; Fiske et al., 1999) as well as message persuasion

[13] Pilot studies had revealed that 30 seconds were long enough for all participants to read the text once. Moreover, one question of the manipulation check questionnaire assessed whether participants perceived there was enough time to read the text. Controlling for individual differences on this measure did not alter the results.

(Petty & Cacioppo, 1986; Chaiken et al., 1996; Petty & Cacioppo, 1981) suggest that more deliberate or effortful processing also depends on the motivation of the perceiver. When faced with highly self-relevant information, perceivers are more likely to be engaged in effortful processing than in situations of low personal relevance. In the present study, participants were asked to form impressions of advisors with whom they had no personal connection and they did not have any information about the specific life-problem the advisor was talking about. It may be that having participants interact with a potential advisor who might provide them self-relevant advice or having the advisor talk about a problem that is relevant to the perceiver may increase the salience of wisdom-related knowledge as a cue to the advisor's level of wisdom. The role of the motivation of the perceiver needs to be explored in future studies. Moreover, it would be very interesting to develop research designs that address the interpersonal nature of wisdom by involving the perceiver more directly in the interaction with an advisor.

Last it should be noted that the repeated exposure just served as a „simulation" of extended experience with an advisor (see Baltes & Goulet, 1971; Lindenberger & Baltes, 1995). Simulations have always certain caveats, such as the question of isomorphy between simulation within a controlled laboratory setting and real life contexts. In real life, other factors such as the perceived helpfulness of the

advice, the originality, or the consequences of the situation may influence attributions of wisdom.

6.3.4 Advice-Giving as a Prototypical Wisdom-Related Context

The present study investigated the perception of persons as being wise in the very specific context of an advice-giving situation. An advice-giving situational context was used for the present study because it represents a prototypical wisdom-related context (Baltes & Staudinger, 2000; Aebli, 1989; Kramer, 1990; 2000; Pascual-Leone, 1990). It also made it possible to address both verbal and behavioral manifestations of wisdom in an interpersonal context.

Advice-giving is, however, only one prototypical wisdom-context. Some wisdom theories focus on metaphysical or self-transcendent wisdom (see Assmann, 1994; Wink & Helson, 1997): Spiritual wisdom might involve other personality characteristics than the ones proposed for an advice-giving context and the fundamental pragmatics of life, such as contemplation or reflectivity, for instance. In her historical and cross-cultural work, Aleida Assmann (1994) for instance, identified several types of wise protagonists. Besides advice-giving, she described political, ironical, and mystic wisdom as prototypical instantiations of wisdom. It would be very interesting to investigate whether these different wisdom prototypes are characterized by different attributes as suggested in Assmann's work.

Psychological wisdom theories have been most interested in wisdom as it refers to fundamental issues of everyday life (Baltes & Smith, 1990). Thus far, researchers have been reluctant to specify subtypes of wisdom; instead preferring a universal conception of wisdom relevant to all kinds of wisdom-related contexts and situations. There are, however, some studies that suggest that different prototypical wisdom contexts can be distinguished. Sowarka (1989), for instance, found that besides advice-giving, socialization experiences, such as parenting, school, and education and the pursuit of positive or creative goals or life styles were perceived as being most prototypical wisdom situations. Other prototypical wisdom situations were discussed as problems occurring in different domains (i.e., private life, education, and profession), judgment of adults' problem behavior, decision-making and problem-solving in relation to one's own professional career goals. These situations emphasize the aspect of guidance and counseling involved in wisdom, but also judgment situations, and the management of one's own life. This also taps into the issue as to whether wisdom necessarily requires success within one's own life – an open question.

When asked for reasons for the nomination of a person as being wise, participants refer to a variety of personal characteristics. Denney et al. (1995) classified responses into five categories: (1) *general*, that is participants believed the nominee to be wise in many different areas, (2) *personal, emotional, moral* involved the

nominees' specific knowledge and skill in these domains, (3) *cognitive* comprised knowledge and reasoning skills, (4) *interpersonal* included good interpersonal skills, and (5) *specific skills* involved particular areas of expertise such as business or art. Specific skills such as art, for instance, might be relevant in an advice-giving context, but could also be relevant in different prototypic wisdom situations such as creative life-management (see Sowarka, 1989). The variety of reasons for the nomination of a person as being wise may suggest that participants think of different wisdom-related contexts when asked to nominate a person as being wise.

Some evidence for the great variety of wisdom-related contexts also stems from work conducted by Bluck and Glück (2004). They asked participants to talk about situations in their own lives in which they behaved wisely. Bluck & Glück (2004) found that participants reported situations that referred to other persons' lives, such as advice-giving, empathy, and perspective-taking as well as situations that referred to one's own life, such as self-determination, assertion, and flexibility.

Advice-giving is one wisdom-related context in which the role of personal characteristics for the attribution of wisdom to a person can be investigated. Other wisdom-situations, such as decisions about or management of one's own life, might not necessarily require a person to demonstrate a high level of interpersonal skill or to be older in order to be perceived as being wise.

The present study cannot resolve the issue of domain generality versus domain specificity of wisdom. Future wisdom-research may benefit from assessing wisdom in specific situations and contexts rather than solely in global terms. To be able to generalize the findings of the present study to different wisdom-domains, it would be desirable to (1) create a taxonomy of (presumably) different life-domains and (2) define the necessary skills, and (3) investigate whether a person who is perceived to be wise in one domain is also perceived to be so in another domain. For instance, it could be asked whether a politician who is perceived as wise by the public also is perceived as a wise person in her/ his private social context.

6.3.5 Age-Differences in Attributions of Wisdom

The present study limited itself to the investigation of younger adult's perceptions of an advisor's wisdom. Previous research on implicit theories of wisdom has shown that older and younger adults differ in their perceptions of wisdom (see Clayton & Birren, 1980; Holliday & Chandler, 1986, Knight & Parr, 1999). Clayton and Birren (1980) found evidence that older adults' concepts of wisdom may be more refined and elaborate. Older perceivers may be less likely to perceive an older person as being wise if this person does not display both a high level of wisdom-related knowledge and good interpersonal skills. Several studies on age-stereotypes have indicated that the complexity of age stereotypes increases with a participant's age (see Brewer & Lui, 1984; Hummert et al., 1994). Older persons

may, however, be less likely to perceive a younger person as being wise at all (see Knight & Parr, 1999).

It will be necessary to conduct person perception studies of wisdom across different age-groups and different cultures (see Takahashi & Bordia, 2000) to be able to generalize the findings of the present study to different populations.