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**The Social Significance of Having Good or Poor Autographical Memory from
an Impression Formation Perspective**

Caminee K. Blake

**A Thesis
in
The Department
of
Psychology**

**Presented in Partial Fulfilment of the Requirements
for the Degree of Doctor of Philosophy at
Concordia University
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Abstract

The Social Significance of Having Good or Poor Autobiographical Memory from an Impression Formation Perspective

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The focus of the present research is on assessing people's perceptions of others as a function of the others' autobiographical recall ability. It is concerned primarily with perceptions of others, and to some extent with people's perceptions of the nature of autobiographical memory itself. The core hypothesis is that people will judge others with good autobiographical memory as more sociable, warm and emotionally involved and those with poor autobiographical memory as less sociable and as more cold and indifferent. In most of the studies, participants were provided with written descriptions of a person and asked to report their impressions of this target primarily by providing ratings on various trait characteristics. First, Studies 1a and 1b surveyed people's perceptions of the nature and importance of autobiographical memory. Results demonstrated that when participants are explicitly asked, having good autobiographical memory is perceived to be normative both descriptively and prescriptively. In this context, having poor autobiographical memory would be perceived as unusual and may be judged harshly. Study 2 was designed to elicit participants' perceptions of others with good or poor autobiographical memory, and good or poor task-related memory using an open-ended, unstructured format. Study 3 assessed whether people's perceptions of targets having good or poor autobiographical memory differed along the social and

intellectual dimensions of implicit personality theory relative to perceptions of having good or poor task-related memory. Results of Studies 2 and 3 indicated that perceptions of good and poor autobiographical memory targets generally differed from perceptions of task-related memory targets. As hypothesized, a link between perceptions of sociability and autobiographical memory on the one hand, and perceptions of intellectual competence and memory for task-related information on the other hand was supported using both an unstructured and a more structured methodology. Study 4 examined whether good relative to poor autobiographical memory targets are perceived as significantly more sociable and whether perceptions of warmth might mediate this perception of global sociability. It appears that participants develop an impression of good autobiographical targets as warm, which then influences their ratings of the target on some of the other sociability trait terms. These results are consistent with warm being viewed as a central evaluative term given that it seems to carry significant weight when forming impressions of good and poor autobiographical memory targets. Studies 5 and 6 assessed whether perceptions of targets with good or poor autobiographical memory are primarily related to the warm and cold central trait terms within the social domain. As expected, results of Study 5 supported that individuals with poor memory for personal events and experiences are perceived to be significantly colder relative to individuals described with good autobiographical memory. Similarly, the results of Study 6 indicated that participants perceived individuals with good autobiographical memory as warm relative to individuals with poor autobiographical memory. Overall, the present studies consistently

supported that having good autobiographical memory is strongly tied to perceptions of sociability and warmth. Having access to memories for one's personal events and experiences is perceived to be socially desirable and communicates information about oneself and seemingly one's interest in engaging with others.

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Introduction

Overview of the thesis.

In person perception or impression formation research, the overall goal is to better understand how people think about others and why particular impressions are formed. Such an understanding has important implications for comprehending and predicting our own and others' social behaviour. In the present research, I am interested in examining how people think about and perceive others with good or poor autobiographical recall. Participants were provided with written descriptions of a target and asked to report their impressions of this target primarily by providing ratings on various trait characteristics. This type of methodology has been used extensively in social psychology to address a range of issues in the domain of person perception.

I begin by reviewing the literature on autobiographical memory highlighting how researchers and theorists define, and construe the role and function of autobiographical memory, particularly its social role. The main goal here is to provide an orientation to the possible social significance of having good or poor autobiographical recall. It will become evident in this review that many theorists and researchers emphasize the social functions and importance of autobiographical memory while never directly testing its perceived significance from an impression formation perspective. After considering the literature on autobiographical recall, in a subsequent section I review the literature on impression formation with a particular focus on the issues and research that are most relevant to people's perceptions of others with good or poor autobiographical recall.

What is autobiographical memory ?

Autobiographical memory can be defined as recollections of episodes and experiences from an individual's past (Baddeley, 1992; Brewer, 1996). It is thought to consist of multiple layers of knowledge namely, of lifetime periods, of general events and of specific memories (M.A. Conway, 1996a). These memories include information about place, actions, persons, and experienced thoughts and affect. One striking feature of autobiographical memory is that it can involve imagery and sensory information (Brewer, 1986; M.A. Conway, 1992). Thus, while autobiographical memory is usually expressed and organized in narrative form, it is composed of affective and sensory components (Nelson, 1992; Rubin, 1998). As such, recalling autobiographical events is often accompanied by a sense of "reliving" the experience. In addition, a person's recollections are construed as dynamic constructions of information sampled from an autobiographical knowledge base in long-term memory (M.A. Conway, 1996b). Autobiographical recall is typically for material for which there was originally no encoding effort made. Such memory may take different forms depending upon the cultural or interpersonal context in which it is acquired and used (Barclay, 1993).

Autobiographical memory generally appears to be selective and reconstructive in nature. These recollections seem to represent the personal subjective meaning of an event at the expense of literal accuracy (M.A. Conway, 1990). Another distinguishing feature of autobiographical memory is that it appears to relate to the self either directly or indirectly and forms part of an individual's repertoire of self knowledge (Brewer, 1986;

M.A. Conway & Rubin, 1993). In this sense, autobiographical memory can include personally significant events such as one's 21st birthday to more mundane aspects of one's daily life such as what one typically eats for breakfast.

Autobiographical memory seems to play an essential role in everyday life. It is thought to serve multiple functions, particularly in our daily interaction with others. People may use it when engaging in conversation with another such as providing self-descriptions. People use it in answering questions about their personal history, in explaining or justifying their actions, in entertaining others, in demonstrating how certain tasks were accomplished or goals attained, or even for documenting accounts for public record (Baddeley, 1988; Neisser, 1988; Robinson & Swanson 1990; Viney, 1995). Given its many functions, many people develop a subjective sense of their capabilities for recalling their personal memories (Brewer, 1988; Hermann, 1982).

While there is little agreement about the primary function of autobiographical memory or what its different functions might be (Cohen, 1998; Hyman & Faries, 1992; Pillemer, 1992; Robinson & Swanson, 1990), it appears that most functions can be broadly described as serving self or social needs. In fact, considering autobiographical remembering in terms of self and social functions can account for most purposes outlined by investigators. Pillemer (1992), for example, argued for three basic functions of autobiographical remembering: (1) to achieve interpersonal goals, (2) for self definition and mood regulation (e.g., Robinson & Swanson 1990; Baddeley, 1988) and (3) to guide behaviour. These functions, however, overlap and are strongly interrelated. The self and

social functions parallel the two main theoretical perspectives on autobiographical memory. These functions and theoretical perspectives both emphasize the adaptive significance of memories for the rememberer. The first perspective links autobiographical memory to the development and maintenance of the sense of self (Mullen, 1994; Fivush, 1988; Barclay, 1993; Barclay & DeCooke, 1988; cf. Neisser, 1988; Fitzgerald, 1986; Howe & Courage, 1997; Viney, 1995). To be aware of and to tell about one's life experiences is also to tell about oneself. In being able to share personal memories with others, for example, people tend to reexperience themselves in relation to others and communicate something about the kind of people they are (Fivush, 1994; Miller, 1994). Support for the relation between autobiographical memory and the self has been found in a number of different research areas (e.g., Ross, McFarland & Fletcher, 1981; Conway & Ross, 1984; Robinson & Swanson 1990; Singer & Salovey, 1993; Singer & Salovey, 1996). For example, research on identity development has drawn links between identity status and autobiographical memory recall (Neimeyer & Metzler, 1994; Neimeyer and Raeshide, 1991). This research has found that people with more committed identity statuses had greater recall of personal memories than did those with less committed identity statuses due to the fact that the former have a more defined and organized structure of self (Kelly, 1955).

The second perspective, which will be the focus of the following review, emphasizes the social functions of autobiographical memory in terms of its content, the communicative role that it plays in social interaction and relationships as well as how it is

developed. Finally, the issue of individual differences in autobiographical recall will also be discussed.

The Social functions of autobiographical memory

Gergen (1994, p.88) argued that “the conditions under which issues of self-memory become focal are either directly or indirectly social in character.” Indeed, it has been widely suggested that autobiographical memories as they are used in everyday interaction help to establish, support and maintain intimate interpersonal relationships (Barclay & Smith, 1993; Barclay & Hodges, 1990; Ross & Holmberg, 1990). They seem to serve social problem-solving and communicative functions. In addition, social interaction also appears to play an important role in the development and content of autobiographical memory (Gergen, 1994; Miller, 1994; Nelson, 1993; Fivush, 1994).

The Social Problem-Solving functions of autobiographical memory

Autobiographical memory appears to serve social functions by providing directives or prescriptions for current and future activities, guides for behaviour, and aids for social problem-solving (Pillemer, 1992; Fitzgerald, 1986). It has been proposed that specific autobiographical memories are functional in social problem solving because they help the individual define the problem (Evans, Williams, O’Loughlin & Howells, 1992; Williams, 1996). For example, referring to previous experiences may provide a better understanding of situational factors contributing to a problem and may help in the generation of alternative solutions to a problem, thus maximizing the chances of success.

In research examining the adaptiveness of reminiscence, recalling specific autobiographical memories has been associated with problem-solving functions (Webster and Cappeliez, 1993). Wong and Watt (1991) demonstrated that “instrumental reminiscence,” defined as memories of past problem-solving experiences and coping activities, is positively related to indices of psychological well-being and mental and physical health in the elderly.

In contrast, having access to “over-general” autobiographical memories has been associated with problem solving deficits. Over-general memories are summary memories of persons, places or activities for which time periods are not specified and detailed contextual information is not accessible (Williams & Dritschel, 1992). Evidence suggests that while the majority of people are able to recall specific memories, people who are elderly (Winthorpe & Rabbitt, 1987; Cohen, 1998) or who have emotional disorders (Williams and Dritschel, 1988) have difficulty doing so, which negatively influences their social problem-solving capacity. In research by Viney (1989), problems in living such as social isolation and reduced activity levels were associated with people’s past stories and personal memories acting less effectively as guides to prepare them for future action. Similarly, among depressed patients, Goddard, Dritschel and Burton (1996) found that deficits in social problem solving abilities were related to poor ability to retrieve specific autobiographical memories. These findings were also extended to a sample of non-clinically depressed college students (Goddard, Dritschel & Burton, 1997), providing additional support that autobiographical memory retrieval is important in social problem solving.

Communicative function of autobiographical recall

The recall of autobiographical memory appears to serve a critical communicative function of sharing personal details with others, which seems to communicate meaning beyond simple facts. The communicative function serves several interpersonal goals (Pillemer, 1992; Robinson & Swanson, 1990). First, sharing personal memories can help the speaker to be understood. Sharing personal memories can communicate something about the speaker's abilities, intentions or feelings. In support of this view, research examining the function of self-disclosure in social interaction has revealed that the most intimate disclosures were associated with the goal of self-expression and self-clarification (Prager, Fuller & Gonzalez, 1989). Second, sharing personal memories may achieve the interpersonal goal of signalling the speaker's openness, emotionality, and intimacy with another, which may promote social interaction or mutual exchange. Sharing personal memories has been associated with greater empathic responses from the listener relative to general or scripted accounts (Beals, 1991). In addition, shared memories that are vivid and which contain sensory and contextual detail seem to be considered more believable (Bell & Loftus, 1989). Third, sharing memories with others with whom they were created can communicate a sense of interpersonal solidarity. Findings have supported that in the act of recounting shared memories with others, the listener will often adopt certain conversational roles, to assist the teller in achieving the conversational goals, thereby reinforcing shared connections (Hirst & Manier, 1996). Such joint sharing can even contribute to a sense of collective or generational identity (M.A. Conway, 1997).

An important study that directly investigated how people use their autobiographical memories in their daily interactions with others was conducted by Hyman and Faries (1992). Participants were asked to describe memories they frequently talked about and the circumstances in which they did so. Across both studies, several uses of autobiographical memory were identified. The most commonly used function of autobiographical memory was to maintain and solidify relationships with a group by telling stories that conformed to ongoing topics of conversation. These stories were self-descriptive and served to strengthen relationships by presenting the self in a manner that illustrated commonalities with others. The second most common usage involved descriptions to other people of one's current concerns, both positive and negative. The third most common usage was self-definitional, which involved people sharing personal memories to allow others to know them and possibly to like them better. The authors noted that autobiographical memory was largely for social purposes and occurred within social settings. Based on these findings, they concluded that a primary purpose of autobiographical memory is to provide self-descriptions for relationship maintenance, which is suggestive of the critical social function of autobiographical memory.

The Construction or Development of Autobiographical Memory and its Content

It has been suggested that developing social connections may be a motivation that underlies the development of autobiographical memory (Nelson, 1989; 1993). Research on the development of autobiographical memory indicates that there is a strong social interactional basis to its development (Fivush, 1994; Mullen & Yi, 1995; Nelson,

1992). Researchers such as Fivush and her colleagues propose that the development of autobiographical memory is shaped by a child's participation in discussions of past events with adults. According to this model, children gradually learn the forms of how to talk about memories with others, and thus learn how to formulate their memories into narratives (Fivush & Reese, 1992; Hudson, 1990; Pillemer & White, 1989; Mullen & Yi, 1995) which are story-like representations involving the self. According to this perspective, children are taught how to remember their personal experiences through a process of co-construction with their parents. These discussions are thought to also provide a more general model for processing personal experiences for storage in memory. Once this model becomes internalized by the child, it is believed that such processing can then also occur outside the context of verbal discussion.

In support of this theory, a number of studies have demonstrated that the quantity and form of children's narratives appear to be influenced by the type of structure parents provide to children for organizing their personal memories (McCabe and Peterson, 1991; Hudson, 1990). For example, in a number of studies it was found that in talking about past events or experiences, some mothers provide more detailed descriptions of events, more contextual background and ask more questions or detailed prompts of their children. This style of interaction has been referred to as "elaborative" by Fivush and Fromhoff (1988). Other mothers tend to repeat questions, focus on labelling objects, seek specific, undetailed answers to questions and dismiss children's independent memory recall especially if specific questions are not answered. This style

of interaction has been labelled “repetitive”. Research demonstrated that children experiencing a repetitive style of interaction generally provide less information, less detail and less context in their autobiographical accounts. In contrast, memory reports of children of elaborative mothers contain more detail, more context and narrative structure (Fivush, 1991).

While the construction of autobiographical memory seems to occur within a social context, the content of what children learn to recount is also social and communicative in nature and function (Howe & Courage, 1997). Children learn to recount the past, but they also learn to share what is considered most important to relate. To investigate this issue, Fivush and colleagues conducted a number of studies analyzing the content of the conversations that children have with significant adults in their lives (Fivush & Haden, 1997). Results indicated that evaluative information appeared to be one of the most frequent forms of shared information. Specifically, evaluative information refers to affective information, intensifiers (e.g., terms like “very” which add intensity or emphasis to actions or descriptions), suspense (i.e., statements creating tension or evoking interest), comparisons and internal responses (i.e., statements reflecting upon the mental states of the participant). The presence of evaluative information is a significant and critical element of narrative structure because it conveys intensity and highlights for others what was emotionally significant or meaningful about an event from the child’s perspective (Fivush, 1998; Peterson & McCabe, 1983; Umiker-Seboek, 1979).

In their analysis of children's early conversations, Fivush & Haden (1997) noted that as soon as they are able to recount the past at all, children include some form of evaluative information which increases in amount and variety over time. In contrast, when children are asked to reconstruct stories based on pictures and not on personal experiences, children almost never include evaluative information about the characters (Trabasso & Rodkin, 1994). These various findings suggest that by modelling their parents, children learn to tell not only what happened, but also why events were interesting, significant or emotional. Children appear to be learning the value of sharing past personal experiences through collaborative recounting (Fivush, Haden & Reese, 1996).

Individual Differences in Autobiographical Memory.

In addition to demonstrating the social development of autobiographical memory through parent-child co-construction, the above research also provides support for the development of individual differences in autobiographical recall and narrative ability. The differences found in the recounting abilities of children from elaborative versus repetitive mothers seem to persist longitudinally (Haden, Haine & Fivush, 1997). Specifically, children's early abilities to provide narratives was a strong predictor of their later abilities to provide narratives. Furthermore, maternal emphasis on a certain structure of narrative also predicted children's later narrative structure. It is important to note, however, that irrespective of the style of co-construction that individuals are exposed to as children,

recounting personal narratives requires both the ability to organize these experiences into culturally conventionalized narrative form and the ability to recall past personal experiences (Haden et al., 1997).

Implicit in much of the theorizing about the social and psychological functions of autobiographical memory is the idea that people are capable of actively sharing their personal histories with others. To be able to share one's history, however, one needs to have access to those memories. While people may vary in their willingness to share autobiographical episodes, they may also vary in their ability to recall autobiographical episodes. Thus, people may differ in their ability to remember past events and experiences in terms of general recall, of social or non-social aspects, of personally significant and more mundane aspects of their lives. Research has supported the existence of stable individual differences in autobiographical recall (Csank & Conway, 1994; Hudson 1990; McCabe & Peterson, 1991). In fact, a self-report measure of individual differences in autobiographical memory was recently developed and validated in a series of studies (Conway, Csank, Blake, Holm & Fillion, 1999). For example, one study examining the amount of detail that individuals recalled of past experiences (e.g., childhood events) revealed that some individuals were able to provide rich and highly detailed descriptions of past personal experiences, whereas others struggled to provide even the most minimal orienting information in terms of time and location of personal events (Conway et al., 1999). In sum, having access to autobiographical memories, regardless of how they are developed or maintained, is necessary in order for them to be

re-experienced by the rememberer, shared with others or to serve other functions reviewed above.

Other research suggests that gender differences in autobiographical memory may also exist. Fivush (1988), for example, has found that as early as 40 months of age, girls' autobiographical narratives are more contextual and evaluative than boys. Some researchers have argued that girls' more frequent reference to internal responses may be indicative of the greater personal significance of narrating the past for girls relative to boys (Fivush & Haden, 1997). Consistent with this finding, both mothers and fathers were found to be significantly more likely to use an elaborative style when talking about the past with daughters than with sons (Reese & Fivush, 1993) and may use more emotion words with daughters than with sons (Adams, Kuebli, Boyle & Fivush, 1995). They conversed longer with daughters than with sons, and asked more questions about past events. Thus, it seems that various interactions involving discussions of the past with children may convey gendered messages about the importance of and appropriate content to be used in the construction of their personal narratives. Indeed, Fivush & Haden (1997) found that the older girls in her research recalled significantly more information about past events than did older boys. It is important to note that this difference was not related to a greater linguistic sophistication of girls relative to boys, or to a greater willingness of girls to engage in conversations relative to boys or to parental reactions to a child's conversational aptitude. In a similar vein, some research suggests that as adults, women have better autobiographical memory than men (Davis, 1999; Seidlitz & Diener

1998; Fivush, 1998). However, other research suggests that women may have better recall than men solely for emotional events (Davis, 1999). In the latter research, women were found to recall more past events in response to emotion words being presented as recall cues. As well, free recall of childhood events was assessed in one study and again women relative to men were found to report more emotional memories; no gender difference was apparent for non-emotional memories. Gender differences in autobiographical memory have a number of implications. First, women's sense of self may rely more heavily than men on their autobiographical narratives. Second, women may generally value the ability and significance of recalling and sharing past personal or emotional experiences more so than men (Buckner & Fivush, 1998; Fivush, 1998; Fivush & Haden, 1997).

Overview/Summary

In general, autobiographical recall is thought to be highly social in function and nature. The social and self functions are related since much of the context for sharing autobiographical memory is directly social. Autobiographical memory appears to play an important role in establishing and maintaining social interaction and in defining an individual's sense of self within a social context. However, people differ in their ability to recall and recount their autobiographical memory.

Autobiographical Memory in Impression Formation

The general purpose of the present research is to examine in the context of impression formation the social significance of autobiographical recall. Whereas researchers and theorists clearly recognize the social significance of autobiographical memory, the perceived importance of autobiographical recall in the context of person perception remains an empirical question.

How do we investigate people's perception of others as a function of others' autobiographical memory? There are a number of ways that people's perceptions can be assessed. Extensive research in the areas of social perception and impression formation has developed methods for characterizing people's perceptions of various characteristics (e.g., Basow & Kobrynowitz, 1993), issues (e.g., Kenney, 1993), abilities, physical features (e.g., Vrij, 1993), personality traits (e.g., Sedikides & Skowronski, 1993), and interpersonal interactions to name a few of the areas investigated. A common method for studying impression formation is to present to participants a fixed amount of information about a target person (e.g., a list of trait adjectives) and then to assess their impressions of the target by their responses on rating scales measuring, for example, their liking of the target. On the basis of participant responses on the rating scales, researchers usually infer the mental representations of participants' impressions of the target or characteristic under investigation (Sherman & Klein, 1994). This is the type of approach used in much of the present research.

Current Themes in Impression Formation: Currently, there is no overriding theory of impression formation. The work of early theorists, notably Asch (1946) and Anderson (1966; 1974), form the basis of current approaches to the study of impression formation. The issues they identified have dominated research in this domain and are still pursued (Kunda & Thagard, 1996; Richter & Kruglanski, 1998; Swann, 1984; Wyer & Carlston, 1994).

In their review of the last 50 years of research in the person perception area, Hamilton & Sherman (1996) distilled several general principles about the process involved in forming impressions of individuals. These principles are closely interrelated and reflect assumptions that perceivers make about other persons which guide the process of impression formation. According to these authors, the fundamental principle that guides all impression formation is the perceiver's tendency to perceive unity in another's personality, which is reflected in their impressions as well. In support of this basic principle, Asch and Anderson separately assumed that the full range of information that characterizes an individual is integrated into one impression of the other person. Despite differences in their accounts of the process of information integration which were researched and debated for many years (e.g., Hamilton & Zanna, 1974; Wyer, 1974, versus Anderson & Lampel, 1965; Kaplan 1975), Asch and Anderson posited that the various perceived aspects of the person are modified and made to fit coherently (Kunda & Thagard, 1996).

More recent process models, such as M.B. Brewer's (1988) dual process model

and Fiske and Neuberg's (1990) continuum model of impression formation have challenged these early models by highlighting the need to distinguish between stereotype or category-based processes and attribute-based processes. Both of these models assume that perceivers engage in stereotype-based processes first and then in attribute-based processes when they are strongly motivated to or when the nature of the attribute prevents attempts to categorize and stereotype. More recent models such as the parallel processing model (Kunda & Thagard, 1996), however, propose that rather than proceeding serially, stereotypes and individuating information are processed simultaneously and thus jointly influence the impressions of the other person. This view is once again consistent with Asch's and Anderson's early view of how impression formation is accomplished, in that all available information is processed to achieve one overall representation of the other person.

A second and related principle of impression formation is that when forming an impression of another person, the perceiver attempts to identify the dispositional core of the other's personality. This is consistent with Asch and Anderson's research in that Asch's (1946) work focused on the inference process that people undertake and how they develop a more unified conception of the target, expanding on the information made available to them. Similarly, Anderson's (cf. Anderson, 1974; 1981) research focused on information integration and highlighted perceivers' tendency to make judgements that summarized their overall impression of the target. In support of this second principle, a number of recent studies have shown that when participants are asked to form an

impression of another person, perceivers make dispositional inferences during the course of processing information about the target person (e.g., Uleman, 1987; Whitney, Warring, & Zinmark, 1992). While these spontaneous inferences may be later modified depending on the context or additional information introduced, perceivers seem to be predisposed to interpreting overt behaviour in terms of underlying personal properties.

A third principle in impression formation is the idea that the perceiver also expects consistency in the target person's traits and behaviours. In support of this idea, evidence suggests, for example, that people perceive more consistency in the behaviours of others than in their own behaviours (Baxter & Goldberg, 1987). Relatedly, individuals perceive others as more predictable than they see themselves (Sande, Goethals, & Radloff, 1988).

A fourth principle guiding impression formation is that the perceiver tries to resolve inconsistencies in the information acquired about the target person. Research has demonstrated, for example, that perceivers will spend more time thinking about information that is inconsistent with the overall impression than they do about consistent information (Bargh & Thein, 1985). Attempts are often made by perceivers to explain why the inconsistencies exist, thus initiating an attribution process. Other evidence has shown that since more processing and thought is allocated to the inconsistent information, this information is also represented in memory and is available later for retrieval (Srull & Wyer, 1989). In fact, numerous studies have demonstrated that memory for incongruent information relative to congruent information is better recalled (Driscoll, Hamilton &

Sorrentino, 1991; Bargh & Thein, 1985). In a meta-analysis of 54 studies examining the influence of social expectations of memory for behavioural and trait information that is congruent and incongruent with those expectations, overall the results demonstrated that memory was superior for expectancy-incongruent than expectancy-congruent information on both recall and recognition measures (Stangor & McMillan, 1992).

The fifth and last principle of impression formation is that the perceiver tends to develop an organized impression of the target person. Perceivers seem to organize their trait knowledge in specific ways. Much of the focus on traits in the impression formation literature has been partly due to the view that traits are the bases for organizing and structuring people's impressions of another person. More recent research has begun to examine alternative organizing structures such as social stereotypes and goal-based expectancies (see Driscoll & Gingrich, 1997).

Structure of Impression Formation. People have been found to organize their impressions of others based on their implicit theory of personality. Research on impression formation suggests that people's implicit theory of personality determines their impressions or inferences (Chiu, Hong & Dweck, 1997; Hong, Chiu, Dweck, & Sacks, 1997; Levy & Dweck, 1998). An implicit theory of personality can be defined as a "hypothetical cognitive structure, often held unconsciously, that comprises the attributes [i.e., traits] of personality that an individual believes others to possess and the set of expected relations (i.e., inferential relations) between these attributes" (Ashmore,

1981, p. 40). These theories are referred to as implicit theories due to the fact that unlike scientific theories, these theories are rarely explicitly articulated.

A number of methods have been used to study people's implicit personality theories. These methods have been used to identify basic dimensions which generally represent how perceivers think about, understand and classify others, particularly when they have limited access to information. Efforts to identify how personality traits are organized, for instance, have been undertaken as a means of identifying the underlying dimensions that people use when trying to understand or categorize individuals (see Buss & Finn for a review, 1987).

In an initial approach to determine the structure underlying people's impressions of others, Asch discovered that particular trait terms were of central importance to people's representations of others. These trait terms were found to have a more significant impact on people's overall impressions of others. In his work, Asch identified the trait terms warm and cold as central. In his research, when each of these terms was added to lists of other traits such as intelligent, skillful, industrious, determined, practical and cautious, the inferences that people developed differed substantially depending on whether the term warm or cold was added. These central terms seemed to shape the overall impression that people would form. In general, impressions for targets in which warm was included were far more positive relative to impressions for targets in which cold was included. Qualities such as generous, sociable, popular, happy, and shrewd were preponderantly assigned to the "warm" person while the opposing qualities were

prominent for the “cold” person. The change in people’s impressions, however, did not occur when other terms such as polite and blunt replaced warm and cold suggesting that these latter terms were not central. A follow-up study by Kelley (1950) also found that the warm-cold traits produced large differences in the impressions of a real person when these terms were introduced as part of an introduction along with other descriptors. The target was a lecturer in a classroom setting and similar differences in first impressions were found as in Asch’s work, which in turn influenced observers’ behaviour towards the target person.

Peabody (1990) more recently attempted to explain the significance of the warm-cold trait terms by focusing on the evaluative versus the descriptive value of these traits in influencing impressions. The descriptive and evaluative influence of traits have usually been confounded in most studies making it difficult to separate the influence of each. Peabody (1990) argued that evaluation is not the primary determinant of people’s perceptions, and that the descriptive quality also has an important impact on the overall impression. His research indicated that the descriptive inconsistency between warm and the other trait terms included in Asch’s descriptions better explained the warm-cold finding than a strictly evaluative interpretation of the results. Nevertheless, the warm/cold trait terms seem to bear a clear influence on people’s impressions of others that differs from the influence of other trait terms even when the context in which these terms are embedded is considered. Furthermore, while the notion of the centrality of certain terms

accounts well for the results of Asch and Kelley, it has remained difficult to articulate at a theoretical level which traits are central.

As a result, researchers began to investigate the underlying structure of people's impressions in terms of core dimensions rather than in terms of specific trait terms. Efforts by Rosenberg et al. (1968) and others were focused on identifying implicit personality dimensions that involved use of the trait terms adopted by Asch. When research participants were asked to report which traits generally go together or which imply the other, two main dimensions emerged. Personality attributes tended to fall along a continua of social desirability and of competence (Rosenberg & Sedlack, 1972; Schneider, Hastorf, & Ellsworth, 1979). Using multidimensional scaling methods, Rosenberg, Nelson, & Vivekananthan (1968) also identified two basic non-orthogonal dimensions which structure people's implicit personality theories. The first dimension concerned intelligence and the second referred to sociability. These dimensions are bipolar, being defined in terms of good versus bad characteristics which are reflected in good and bad social trait terms (e.g., warm and sincere vs. cold and unpopular) and good and bad intellectual trait terms (e.g., intelligent and skillful vs. foolish and unintelligent).

Research using a variety of methods have consistently organized traits along a small number of dimensions which although not identical across methods, do show some convergent validity. Using factor analytic methods to determine the interrelationships among trait groups and the basic dimensions that underlie them, early work by Norman (1963) and others found five relatively independent dimensions of perceived traits

commonly referred to as the Big Five which included extraversion, agreeableness, conscientiousness, emotional stability and culture. The factors of agreeableness and conscientiousness from the big five are similar to the good-bad social and good-bad intellectual dimensions respectively, suggesting that the methods of multidimensional scaling and factor analysis yield somewhat similar relationships. It is important to note that agreeableness and conscientiousness remain in recent formulations of the Big Five (Costa & McCrae, 1985). Wiggins (1979) also derived a taxonomy of trait descriptions by classifying 800 interpersonal traits into various conceptual categories represented in a circumplex model. The trait organization identified by this model shows some overlap with those identified by the multidimensional scaling and factor analytic methods (e.g., Warm-Agreeable vs. Cold-Quarrelsome). In sum, sociability and intellectual competence seem to be among the basic dimensions that people use to organize their impressions of others.

A number of important implications arise from people's tendency to organize their trait impressions of others. For example, behaviours that reflect the same trait or the same underlying quality of a person are likely to be grouped together in memory. Due to the organization of trait information in memory, a number of studies suggest that the later retrieval of impression-based information from memory tends to be more easily facilitated (Hamilton, Driscoll, & Worth, 1989). In addition, knowing that specific traits tend to co-occur in implicit personality theory allows predictions regarding the impressions of a person when only some qualities of a target are known by that person. Finally, while

there has been some debate on the external validity and accuracy of implicit personality theory (Mayer & Bower, 1986), evidence seems to indicate that implicit personality theories accurately reflect actual trait co-occurrences and not simply the semantic associations of the perceiver (Zebrowitz, 1990; Gifford & O'Connor, 1987).

Impression Formation and Perceptions of Memory

A number of perceiver characteristics have also been investigated to better understand their influence on impressions of a target person. These characteristics include various cognitive and affective factors such as expectations, personal constructs, stereotypes, self-schemas, perceiver goals and emotional states (Zebrowitz, 1990). What are people's expectations of others with good or poor autobiographical memory ? In terms of people's perceptions of memory, little research has been conducted to address what it means to have good or poor memory from the perceiver's perspective. Existing research in impression formation and memory has focused strictly on people's perceptions of others as a function of their task-related memory ability and not specifically on autobiographical memory. In particular, recent research has focused exclusively on people's perceptions of others with task-related memory failures. Results of these studies suggest that having poor memory is perceived to be a serious cognitive or intellectual problem. For example, in a person perception study conducted by Erber (1989), people's perceptions of others' memory performance as depicted in particular scenarios (e.g., targets arriving at the supermarket and realizing that they have forgotten

what they intended to purchase) was assessed. Results indicated that memory failures were perceived to be an indication of mental difficulty. Other research examining people's causal attributions about task-related memory failure of a target person demonstrated that not having access to memories led people to perceive either (1) that a cognitive impairment exists or (2) that a lack of effort is responsible. For example, despite the availability of other explanations for memory failure, Erber and Rothberg (1991) demonstrated that memory failures in older targets were attributed by participants to lack of ability (a stable, unmodifiable factor), and were more often attributed to lack of effort (an unstable, thus modifiable factor) in younger targets. In addition, the type of memory failure experienced by a target was found to be an important factor in influencing perceivers' attributions. In one study, Erber and Rothberg (1991) made a distinction between short-term, long-term and very long-term memory failures. Results indicated that very long-term memory failures were regarded as more indicative of mental difficulty than short-term or moderately long-term memory failures. Forgetting of people and places was also perceived as more indicative of mental difficulty relative to memory failure for lists or numbers (Erber, Szuchman, & Rothberg, 1990). These findings were found to be particularly strong in more evaluative contexts in which an individual's capability for performing memory-related tasks is being considered versus a non-evaluative context such as being at a party where task-related memory is not relevant (Erber, Prager, Williams & Caiola, 1996).

Erber's findings suggest that people hold particular assumptions or expectations

about the nature of people's general memory abilities. It appears that people perceive the ability to remember past events as normative in both descriptive and prescriptive terms. Consistent with this view, in a survey on people's perceptions of the nature of memory, memories were perceived to be always retrievable as long as effort was applied (Legault, 1996). People's perceptions of general memory failure seem to reflect perceptions of difficulties along the intellectual dimension of Rosenberg's implicit personality structure. It appears that general memory failure creates an impression about an individual's cognitive capability such that an individual who experiences memory failures may be viewed as less capable intellectually.

The present research:

The focus of the present research is on assessing people's perceptions of others as a function of the others' autobiographical recall ability. It is concerned primarily with perceptions of others, and to some extent with people's perceptions of the nature of autobiographical memory itself. The latter perceptions are addressed in terms of their implications for impression formation. What does existing theorizing suggest regarding the impressions people hold of others as a function of others' autobiographical memory? That people have a good memory seems to imply that an emotional or psychological connection exists between the past and the present because of the impact that these memories have on how people define themselves and their relationships with others. Having good autobiographical memory may suggest that one values the past and its

personal significance with regards to one's social experiences and relations. As such, an individual with good autobiographical memory may be perceived as more connected or attached to others and valuing the personal significance of life events both past and present. It may reflect a person's sense of personal ties, affection and sympathy towards others. As such, in terms of Asch's central traits, an individual with good autobiographical memory may be perceived as warm. More generally, in terms of implicit personality theory, the individual would be perceived as more sociable. Conversely, having poor autobiographical memory may be perceived as reflecting a lack of interest in past events and their personal meaning. The person may be perceived as lacking a sense of connection or attachment to others, as memories are largely social. In terms of Asch's central traits, an individual with poor autobiographical memory may be perceived as cold and unsociable. As such, the major hypothesis of the present research is that people will judge others with good autobiographical memory as more sociable, warm and emotionally connected. Similarly, individuals with poor autobiographical memory may be perceived as less sociable, more cold, and indifferent.

Implicit in this hypothesizing is an assumption that memories are normally social and positive in nature. However, what if the memories are bad or of a traumatic nature ? Much research in the area of trauma, for example, has identified an association between involuntary recall of traumatic events and the experience of psychological distress across a variety of experiences (Hauff & Vaglum, 1994; Spiro, Schnurr, & Aldwin, 1994; Robinson, Rapaport, & Rapaport, 1994) such as natural disasters (e.g., Green, 1993),

adult physical assault (e.g., Loughrey, Curran, & Bell, 1993), and combat experiences (e.g., Blake, Cook, & Keane, 1992) to name a few. Thus, the content of the memories may be relevant to consider when determining what people's perceptions of having good or poor autobiographical memory might be. Taking this perspective into account, it is possible that perceivers would view individuals with good autobiographical memory of distressing events as being more anxious or disturbed. However, people are subject to a positivity bias in their view of the world and in their impressions of others (Peeters & Czapinski, 1990). As such, people likely assume that others' good memory for past events is not uniquely positive, but largely so.

Issues. In order to address the central hypothesis that people will judge others with good autobiographical memory as more sociable, warm and emotionally involved and those with poor autobiographical memory as less sociable, and as cold and indifferent, the following issues need to be addressed. First, do people think of autobiographical memory as being distinct from task-related memory (e.g., as the latter has been addressed in prior research on general memory)? Conceptually, making the distinction between these two types of memory is important given that having good autobiographical memory versus good memory for task-related material may differ in perceived significance. Better memory for learned material, for instance, seems commonly associated with general intelligence (Rabbitt & Yang, 1996).

To address this issue, I examined people's perceptions of the nature of autobiographical memory versus task-related memory, separately. I examined their

perceptions of social targets varying in autobiographical memory ability, and social targets varying in task-related memory ability. It is in the latter respect that the present research most closely approximates the earlier research of Erber on people's perceptions and attributions as a function of memory failure. In comparing people's perceptions of autobiographical memory targets with task-related memory targets, I am not attempting to provide a comprehensive account of people's perceptions of others as a function of all aspects of the others' memory. Rather, I am proposing that for social perception, memory in the context of task performance cannot be subsumed under autobiographical memory, or vice versa. As such, the task-related memory targets that were presented to participants in some of the present studies were intended to serve as an alternate type of memory target against which to draw comparisons of people's perceptions of targets of differing autobiographical memory.

Consistent with its definition in the research literature, I defined autobiographical memory for participants in the present studies, with the exception of Study 1a, as "memory for personal events and experiences from one's past." This definition reflects the notion that autobiographical memory is a form of memory that individuals do not actively attempt to encode, in contrast to memory for task-related information which is often rehearsed. This manner of defining autobiographical memory to participants in the present research is fully consistent with current theorizing. In addition, given that the focus of the present research is on lay people's perceptions of autobiographical memory ability, it seemed plausible that people's perceptions of this ability could be understood

in terms of the evaluative dimension of good and poor. These descriptors likely encompass a number of other aspects of memory recall (e.g., the vividness of memories).

The second issue that needs to be addressed in order to adequately pursue the core hypothesis concerns people's lay theory regarding individual differences in autobiographical memory. Are some individuals seen as having good autobiographical memory and others as having poor autobiographical memory? The third issue concerns whether having good autobiographical memory is perceived to be normative in both descriptive and prescriptive terms. With these interrelated issues addressed, one can then turn to the core hypothesis. The research does address the following question: what are people's perceptions in terms of personal dispositions of others with good or poor autobiographical memory?

Studies. Studies 1a and 1b surveyed people's perceptions of the nature and importance of autobiographical memory. Study 2 was designed to elicit participants' perceptions of others with good or poor autobiographical memory, and good or poor task-related memory using an open-ended, unstructured format. Study 3 assessed whether perceptions of targets having good or poor autobiographical memory differed along the social and intellectual dimensions of implicit personality theory relative to perceptions of having good or poor task-related memory. Study 4 examined whether good relative to poor autobiographical memory targets are perceived as significantly more sociable. Study 5 assessed whether perceptions of targets with good or poor

autobiographical memory are primarily related to central trait terms within the social domain (i.e., warm and cold). Study 6 was a conceptual replication of Study 5.

Study 1a

Studies 1a and 1b addressed people's general beliefs about the nature and importance of autobiographical memory. Study 1a addressed the question of how autobiographical memory is perceived. Specifically, it served to assess whether autobiographical memory is perceived as distinct from task-related memory. It is unclear whether people distinguish autobiographical memory from memory for material that is deliberately learned in a work or a school context (e.g., memory for course material). Study 1a also tested the hypothesis that having good autobiographical memory is perceived to be normative in that the average person's recall is expected to be good (i.e., in descriptive terms) and also a socially desirable quality (i.e., in prescriptive terms).

Hypotheses: It was expected that respondents would not equate having good autobiographical memory with having good memory for task-related information. It was also expected that respondents would believe that having good autobiographical memory is normative. The remaining statements in the administered questionnaires were included for exploratory reasons.

Method

Participants. Participants were recruited from a booth on a Concordia University campus. Students were asked to complete a packet of questionnaires for a psychology

project while at the booth. A lottery prize was offered for their participation. Included in this packet was a brief survey questionnaire asking participants to indicate their opinions about the nature of autobiographical memory. None of the other questionnaires in the packet concerned autobiographical memory. A total of 266 students (156 women, 110 men) ranging from 17 to 79 years of age ($M = 24.8$) completed this brief survey.

Materials. The survey questionnaire (see Appendix A for questionnaire) was composed of five items concerning the nature of autobiographical memory. Participants were presented the following statements in this order: (a) “The average person’s memory for personal events and experiences is very good” (b) “It is a desirable quality to have good memory for one’s own personal events and experiences” (c) “Memory is like a tape recorder. Everything one experiences is permanently recorded in the brain.” (d) “For important personal events, anyone can remember them if they really try.” (e) “If someone has good memory for personal events and experiences, then he/she also has good memory for factual information (e.g., memory for course material, telephone numbers)”. The latter referents were deemed familiar and were adopted to refer to task-related memory. Participants were asked to indicate the extent to which they agreed with each statement on a 5-point rating scale ranging from Strongly disagree (1) to Strongly agree (5).

Results and Discussion

Means were compared against the midpoint of each scale. The midpoint reflected neither agreement nor disagreement with the statement. Multiple t-tests were conducted comparing the mean and the scale midpoint for each item in order to demonstrate whether participants' mean responses differed significantly from the neutral point of the scale. Thus, means significantly above the midpoint would indicate agreement with the item and means significantly below would indicate disagreement with the item. As expected, respondents generally disagreed that having good autobiographical memory also involves having good memory for factual material ($M=2.32$, $SD=1.05$, $t(265)=-10.46$, $p<.001$). As well, respondents generally agreed that the average person's memory for personal events and experiences is very good ($M=3.46$, $SD=.94$, $t(265)=8.07$, $p<.001$). Having good autobiographical memory was also perceived to be a desirable quality ($M=4.16$, $SD=.82$, $t(265)=22.75$, $p<.001$). Responses to the remaining statements were also analyzed. Respondents were equivocal on whether memory is like a tape recorder with which everything is permanently recorded in the brain ($M=2.93$, $SD=1.3$, $t(265)=-.85$, ns). Respondents seemed to believe that important personal events can be remembered by anyone through effort ($M=3.18$, $SD=1.29$, $t(265)=2.46$, $p<.05$). While the difference between the mean and the midpoint is significant for this item, the mean is nevertheless close to the mid-point of the scale and the SD is relatively high suggesting that on average participants only weakly endorsed this statement. Finally, multiple t-tests indicated that

men and women did not significantly differ in their responses to any of the questionnaire items ($p < .05$).

In sum, the results of Study 1a suggest that people have particular beliefs regarding the nature and importance of autobiographical memory. When explicitly asked, respondents distinguish between autobiographical memory and task-related memory. Although perceived as limited, autobiographical memory is viewed as being generally good for most people as well as a socially desirable quality.

Study 1b

The aim of Study 1b was to obtain a more precise understanding of people's perceptions of autobiographical memory. The results of Study 1a indicated that people believe that most individuals have good autobiographical memory. Do they, however, believe that some individuals have very good or very poor autobiographical memory? The purpose of Study 1b was to further determine what individuals generally perceive to be normative in terms of people's capacity to recall past personal events and experiences. It was hypothesized that participants would perceive having good autobiographical memory as normative while recognizing the existence of extremes in people's recall capacity.

Method

Participants. Method of participant recruitment was identical to the one used in Study 1a. As in Study 1a, the survey questionnaire was included amongst other unrelated measures

in the recruiting packet. In the survey, participants were asked to indicate their opinions about the nature of autobiographical memory. A total of 150 students (75 men, 75 women) ranging from 18 to 60 years of age ($M=23.6$) completed this brief survey.

Materials. The survey questionnaire (see Appendix B for questionnaire) was composed of three items about the nature of autobiographical memory. Participants were presented the following statements: (a) “Most people have reasonably good memory for personal events and experiences in their past” (b) “Some people have very good memory for personal events and experiences in their past” (c) “Some people have very poor memory for personal events and experiences in their past.” Participants were asked to indicate the extent to which they agreed with the statements on a 5-point rating scale ranging from Strongly disagree (1) to Strongly agree (5). The order of the last two items was counterbalanced.

Results and Discussion

Means were compared against the midpoint of the scale. The midpoint reflected neither agreement nor disagreement with the statement. Multiple t-tests conducted comparing the mean and the midpoint for each item indicated that these differences were significant for all three items. Respondents generally agreed that most people have reasonably good memory for personal events and experiences in their past ($M=3.72$, $SD=.82$, $t(149)=10.74$, $p<.001$). On average, respondents also agreed that some people have very good memory for personal events and experiences in their past ($M=4.01$, $SD=.72$,

$t(149)=17.12, p<.001$). Finally, on average, respondents agreed that some people have very poor memory for personal events and experiences in their past ($M=3.40, SD=1.15, t(149)=4.26, p<.001$). As in Study 1a, multiple t-tests indicated that men and women did not significantly differ in their responses to these items ($ps<.05$).

Replicating the results of Study 1a, the findings of Study 1b suggest that most people are assumed to possess relatively good memory for past personal events and experiences. Even in the context of such a belief, respondents also agreed that some individuals have very good while others have very poor autobiographical recall. These findings indicate that it is plausible to provide social perception targets to participants describing individuals with good, poor, very good, or very poor autobiographical memory.

Study 2

Although Studies 1a and 1b provided evidence that when people are explicitly asked, they report that having good autobiographical memory is normative, and distinct from task-related memory, little else is known about what people associate with this form of memory. What specifically are the characteristics or descriptions that people relate to others having good or poor autobiographical memory? Furthermore, are these perceptions consistent with their views about the nature of autobiographical memory or memory for task-related information as surveyed in Studies 1a and 1b? Using an unstructured open-ended format, Study 2 was designed to elicit participants' perceptions of what it means to have good or poor autobiographical memory, and to have good or

poor task-related memory. The main aim was to learn more about people's perceptions of autobiographical memory and its relation to other forms of memory and personality traits. To this aim, I elicited the words or phrases that participants thought best described targets with either good or poor autobiographical memory, or with good or poor memory for task-related information. Given that participants were university students, I chose to address their perceptions of others with good or poor autobiographical recall, and their perceptions of others with good or poor memory for course material. For these participants, course material seemed a good domain in which to instantiate deliberate efforts at memory encoding which contrasts with the incidental encoding that generally occurs for autobiographical memory. As well, course material is not closely related to the self or to one's social relations, hence distinguishing it from autobiographical memory.

Hypotheses. The hypotheses were that the descriptions generated for targets with good autobiographical memory would support the general perception that it is normative in both descriptive and prescriptive terms. Specifically, I expected that having good autobiographical memory would be associated with more positive descriptions relative to targets with poor autobiographical memory within the social, affiliative domain. In addition, I predicted that having good memory for course material would be associated with adjectives or descriptions relating to intellectual competence, whereas poor memory for course material would be related to descriptions of intellectual incompetence.

Method

Participants. The method of participant recruitment was identical to the one used in Study 1a. As part of the recruitment package, participants could complete a form permitting future contact for participation in laboratory studies. From the pool of participants obtained through this recruitment procedure, participants were contacted by telephone by other members of the laboratory and asked to participate in research unrelated to the current study. After participating in the unrelated study, these experimenters informed participants about a second study they could participate in. A questionnaire for the current study was administered by these experimenters at the end of their own experimental sessions. A total of 221 participants agreed to participate in the present study. This sample of participants (108 men, 113 women) ranged from 18 to 72 years of age ($M=23.67$) with 91.4 % of the sample falling within the 18 to 30 year range.

Materials and Procedure. There were two kinds of stimuli presented to participants - one related to autobiographical memory and the other to memory for task-related information (see Appendix C for target stimuli). For the autobiographical memory conditions, I used “memory for personal events and experiences.” For the memory for task-related information conditions, I used “memory for course material.” The design of this study is a 2 (memory type: autobiographical memory vs. memory for course material) x 2 (memory ability: good vs. poor). Participants were randomly assigned to one of these four conditions. Participants were told that the study concerned the impressions people form of others when provided with limited information. A consent form was provided

followed by the description of the target. All participants were asked to read either the lead “Mary has...” or “Bob has...”, followed by one of the following four descriptions: 1) “poor memory for personal events and experiences in his/her past” (poor autobiographical memory condition), 2) “good memory for personal events and experiences in his/her past” (good autobiographical memory condition), 3) “poor memory for course material” (poor task-related memory condition), and 4) “good memory for course material” (good task-related memory condition). “His” was used for “Bob”; “Her” was used for “Mary”. Sex of participant and of target were always matched. As an initial attempt to test my hypotheses, I focused on men rating male targets only and women rating female targets only. The experimenter then left the room and allowed participants up to 5 minutes to form an impression and to generate words they thought best described the target. Eleven blank lines were provided for their responses. Participants were encouraged to fill in as many lines as they wished and to call the experimenter when they were finished. For this study, no other measures were administered before or after the task. Upon completion, participants were thanked for their participation.

Results

Thirty one cases were identified as univariate outliers in the following categories: negative, history/cause, social positive, social negative, intellectual positive, intellectual negative, intellectual positive active and intellectual negative passive. These outliers were

adjusted to the mean plus three standard deviations. Using Mahalanobis distance with $p < .001$ (Tabachnick and Fidell, 1996), two cases were identified as multivariate outliers and were eliminated. With these cases removed, 221 cases remained. Tests for normality identified severe skew on most categories largely due to the high frequency of zero responses for those categories of trait terms. In addition, transformation of the skewed variables did not have a significant effect on the level of skew. Therefore, the adjustments were not performed. Due to the level of skew of many of the variables, the assumption of homogeneity of variance was not met for the analyses described below. As a result, as recommended by Tabachnik and Fidell (1986), more stringent tests were used to determine significance levels (i.e., Pillais).

Preliminary analyses. A total of 855 different adjectives and phrases were generated by participants. A qualitative categorization scheme was developed based on research on implicit personality theory (Rosenberg et al., 1968) and also on categories derived from an examination of the adjectives produced by participants. The following twelve categories were derived: (a.1) Global positive (e.g., happy, aware) and (a.2) Global negative (e.g., sad, daydreamer), (b.1) Social Positive (e.g., caring, dependable), (b.2) Social Positive Active (e.g., extraverted, helpful), (b.3) Social Negative (e.g., boring, deceitful), and (b.4) Social Negative Passive (e.g., introverted, shy), (c.1) Intellectual Positive (e.g., smart, intelligent), (c.2) Intellectual Positive Active (e.g., studious, hard-working), (c.3) Intellectual Negative (e.g., stupid, slow), and (c.4) Intellectual Negative Passive (e.g., lazy, unmotivated) (d) History or Cause (e.g., bad childhood, amnesia), and

(e) Other (e.g., selective, innocent)(See Appendix D for definition of categories). Due to the extremely low frequency of adjectives generated in the Social Positive Active and Social Negative Passive categories, they were subsumed under the Social Positive and Social Negative categories respectively, leaving a total of 10 categories.

Using this final categorization scheme, two raters categorized each of the 855 adjectives and phrases. These adjectives and phrases were coded from a master list in which items were presented in alphabetical order. The raters were blind to the stimuli used for the elicitation of words by participants. Percentage agreement between the two raters ranged from 80 to 100% for each of the 10 categories. As a result, the recommended cut-off of .8 for percentage agreement was met (Tabachnik & Fidell, 1986). In total, the mean number of adjectives generated by each participant was 5.81 ($SD=3.09$) with a range of 1 to 12 adjectives. The mean number of adjectives generated by each participant per category was as follows: (a.1) Global positive ($M=.79$, $SD=1.15$) and (a.2) Global negative ($M=.76$, $SD=1.21$) (b.1) Social Positive ($M=.41$, $SD=.94$), and (b.2) Social Negative ($M=.42$, $SD=.93$), (c.1) Intellectual Positive ($M=1.01$, $SD=1.45$), (c.2) Intellectual Positive Active ($M=.30$, $SD=.71$), (c.3) Intellectual Negative ($M=.76$, $SD=1.18$), and (c.4) Intellectual Negative Passive ($M=.28$, $SD=.69$) (d) History or Cause ($M=.64$, $SD=1.13$), and (e) Other ($M=.23$, $SD=.58$).

Main analyses. The major hypothesis was that good relative to poor autobiographical (ABM) targets would be perceived in terms of significantly more Social Positive and less Social Negative adjectives. No significant differences for the Social

categories were expected to emerge in the frequency of adjectives generated for good and poor course material memory (CMM) targets. For the intellectual categories, significantly more positive and less negative adjectives were expected to be generated for good relative to poor CMM targets. For the Intellectual categories, no significant differences were expected to emerge in the frequency of adjectives generated for good and poor ABM targets. The frequency of adjectives generated in the Global Positive, Global Negative and History or Cause categories for good and poor ABM and CMM targets were also analyzed.

For the two social categories, 2 (memory ability: good vs poor) x 2 (memory type: ABM vs. memory for course material) between-subjects ANOVAs were conducted. The hypothesized effect was a 2 (memory valence) x 2(memory type) interaction. To examine the significant interactions for these two social categories, post-hoc comparisons of the means for each of the four conditions (good ABM, poor ABM, good CMM & poor CMM) were performed (see Table 1). Required Bonferonni corrections were made in each analysis.

Social Negative Category. For the social negative category, the between-subjects ANOVA was conducted. A Memory Ability x Memory Type interaction was the hypothesized effect. The analysis revealed the expected interaction ($F(1,217)=5.38$, $p=.021$) (see Figure 1). This interaction qualified a significant memory type main effect ($F(1,217)=7.21$, $p=.000$): significantly more adjectives were generated in the social negative category for ABM relative to CMM targets. Although the interaction was

Table 1

Post hoc Comparisons of Adjectives Generated for Good Autobiographical Memory, Poor Autobiographical, Good Course Material Memory and Poor Course Material Memory Targets in Study 2

| Dependent Variable | ANOVA | | | Pairwise Comparisons |
|--|-----------------|--------|----|--|
| | | F | df | |
| Intellectual Positive Category | Corrected Model | 65.89 | 3 | Good ABM > Poor ABM*** |
| | MA | 140.55 | 1 | Good ABM < Good CMM*** |
| | MT | 32.40 | 1 | Good ABM > Poor CMM*** |
| | MA x MT | 21.54 | 1 | Good CMM > Poor ABM*** |
| | | | | Good CMM > Poor CMM*** Poor ABM ~ Poor CMM |
| Intellectual Positive Active Category | Corrected Model | 29.71 | 3 | Good ABM ~ Poor ABM |
| | MA | 44.74 | 1 | Good ABM < Good CMM*** |
| | MT | 25.10 | 1 | Good ABM ~ Poor CMM |
| | MA x MT | 21.55 | 1 | Good CMM > Poor ABM*** |
| | | | | Good CMM > Poor CMM*** Poor ABM ~ Poor CMM |
| Intellectual Negative Passive Category | Corrected Model | 21.22 | 3 | Good ABM ~ Poor ABM |
| | MA | 41.02 | 1 | Good ABM ~ Good CMM |
| | MT | 16.62 | 1 | Good ABM < Poor CMM*** |
| | MA x MT | 8.95 | 1 | Good CMM ~ Poor ABM |
| | | | | Good CMM < Poor CMM*** Poor ABM < Poor CMM*** |
| Social Negative Category | Corrected Model | 6.219 | 3 | Good ABM ~ Poor ABM |
| | MA | 0.071 | 1 | Good ABM ~ Good CMM |
| | MT | 13.177 | 1 | Good ABM ~ Poor CMM |
| | MA x MT | 5.377 | 1 | Good CMM < Poor ABM* |
| | | | | Good CMM ~ Poor CMM Poor ABM > Poor CMM*** |

Note. MA = Memory ability; MT = Memory type.

Pairwise comparisons done only when omnibus comparisons for Memory Ability x Memory Type interaction effect was significant.

~ denotes no significant difference in pairwise test.

* p<.05. **p<.01. ***p<.001.

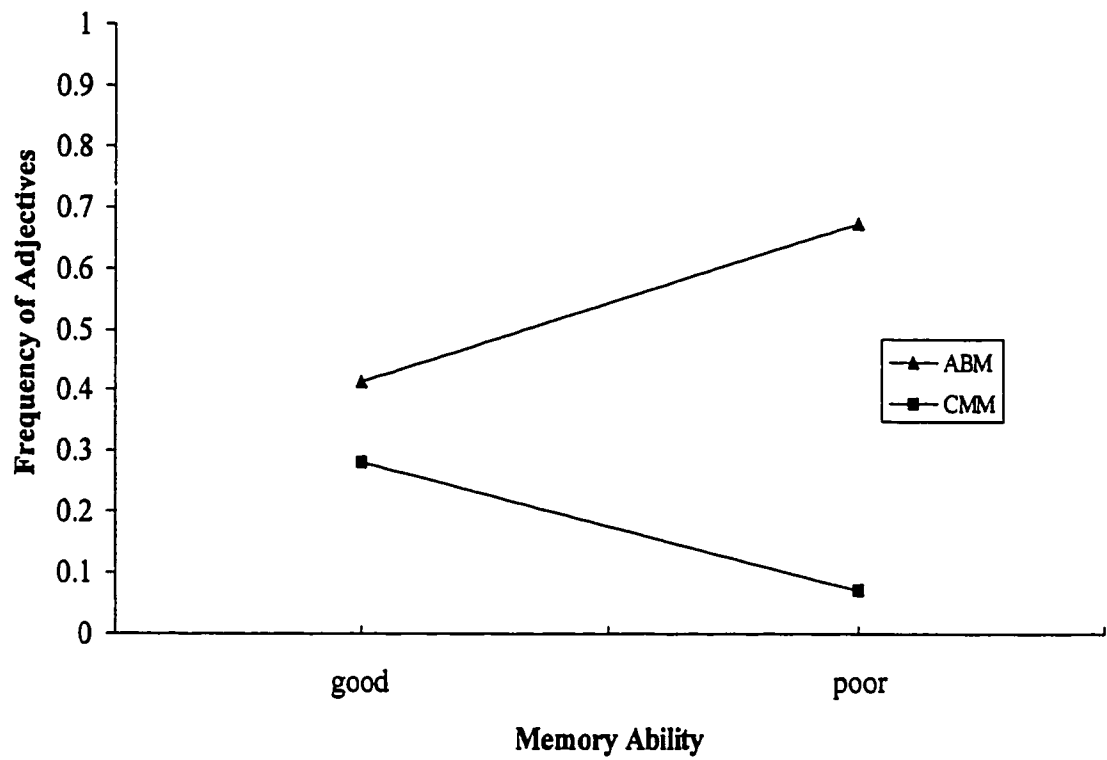


Figure 1. *Perceptions of Targets in terms of the Number of items Generated in the Social Negative Category*

significant, no significant differences were found in the number of adjectives generated in the social negative category for good versus poor ABM or for good versus poor CMM targets. The results were in the expected direction for the ABM targets. In addition, significantly more adjectives were generated in the social negative category for poor ABM targets relative to both poor and good CMM targets (see Table 2 for means). The memory ability main effect was not significant ($F < 1$).

Social Positive Category. For the social positive category, a 2 (memory ability: good vs poor) x 2 (memory type: ABM vs. memory for course material) between-subjects ANOVA was also conducted. A significant Memory Ability x Memory Type interaction was the hypothesized effect. Contrary to expectation, the analysis did not reveal the expected interaction ($F < 1$). The memory type ($F(1,217)=6.81, p=.010$) and memory ability ($F(1,217)=16.03, p<.001$) main effects were significant. Overall, good relative to poor memory targets were associated with a significantly higher frequency of adjectives in the social positive category. Overall, significantly more adjectives were generated for CMM relative to ABM targets.

Intellectual Categories. A 2 (memory ability: good vs poor) x 2 (memory type: ABM vs. CMM) between-subjects MANOVA was conducted on the frequencies for the four intellectual categories (intellectual positive, intellectual positive active, intellectual negative, and intellectual negative passive). The hypothesized effect was a 2 (memory ability) x 2 (memory type) interaction. The analysis revealed the expected interaction ($F(4,214)=11.91, p<.001$) which qualified significant memory ability ($F(4,214)=71.45,$

Table 2

Mean Frequencies for Good Autobiographical Memory, Poor Autobiographical Memory, Good Course Material Memory and Poor Course Material Memory Targets in Study 2

| Categories | Good ABM | | | Poor ABM | | | Good CMM | | | Poor CMM | | |
|-------------------------------|-----------------------|------|----|----------------------|------|----|------------------------|------|----|------------------------|------|----|
| | M | SD | n | M | SD | n | M | SD | n | M | SD | n |
| Global positive | 1.50 | 1.22 | 58 | 0.34 | 0.82 | 59 | 1.11 | 0.94 | 53 | 0.15 | 0.42 | 51 |
| Global negative | 0.40 | 0.81 | 58 | 1.38 | 1.35 | 59 | 0.18 | 0.27 | 53 | 1.08 | 1.25 | 51 |
| Social positive | 0.81 | 1.02 | 58 | 0.31 | 0.65 | 59 | 0.09 | 0.74 | 53 | 0.01 | 0.27 | 51 |
| Social negative | 0.41 | 0.75 | 58 | 0.672 ^{a,d} | 1.02 | 59 | 0.283 ^d | 0.66 | 53 | 0.078 ^a | 0.27 | 51 |
| Intellectual positive | 1.12 ^{a,b,c} | 1.10 | 58 | 0.136 ^a | 0.47 | 59 | 2.48 ^{a,b,c} | 1.44 | 53 | 0.275 ^c | 0.60 | 51 |
| Intellectual negative | 0.03 | 0.18 | 58 | 1.18 | 1.20 | 59 | 0.19 | 0.48 | 53 | 1.60 | 1.32 | 51 |
| Intellectual positive active | 0.172 ^a | 0.46 | 58 | 0.034 ^b | 0.18 | 59 | 0.826 ^{a,b,c} | 0.85 | 53 | 0.059 ^c | 0.24 | 51 |
| Intellectual negative passive | 0 ^a | 0.00 | 58 | 0.237 ^c | 0.50 | 59 | 0.075 ^b | 0.33 | 53 | 0.729 ^{a,b,c} | 0.86 | 51 |
| History | 0.05 | 0.22 | 58 | 1.13 | 1.25 | 59 | 0.09 | 0.35 | 53 | 1.33 | 1.36 | 51 |
| Other | 0.19 | 0.58 | 58 | 0.22 | 0.49 | 59 | 0.33 | 0.73 | 53 | 0.18 | 0.52 | 51 |

Note. ABM=Autobiographical memory; CMM=Course material memory; a,b,c=p<.001; d=p<.05

$p < .001$) and memory type ($F(4,214)=20.05$, $p < .001$) main effects. The memory type main effect indicated that significantly more intellectual adjectives were generated for CMM relative to ABM targets, irrespective of memory ability. The memory ability main effect indicated that significantly more adjectives were generated for good relative to poor memory targets, irrespective of memory type. Univariate tests revealed that significant interactions were found for the intellectual positive ($F(1,217)=21.53$, $p < .001$), intellectual positive active ($F(1,217)=21.54$, $p < .001$) and intellectual negative passive ($F(1,217)=8.94$, $p = .003$) categories, as predicted. Contrary to expectation, the interaction for the intellectual negative category was not significant ($F < 1$). For this latter category, both the memory type and memory ability main effects were significant. The memory type main effect indicated that significantly more intellectual negative adjectives were produced for CMM relative to ABM targets. The memory ability main effect indicated that significantly more intellectual negative adjectives were generated for poor relative to good memory targets, irrespective of memory type. To examine the significant interactions in the other three intellectual categories, post-hoc comparisons of the means for each of the four conditions (good ABM, poor ABM, good CMM and poor CMM) were performed. Required Bonferonni corrections were made in each analysis (see Table 1).

Intellectual Positive Category. The memory type and memory ability main effects were significant indicating that significantly more intellectual positive adjectives were generated for CMM targets relative to ABM targets and for good relative to poor

ability targets, respectively. The main effects, however, were qualified by the significant memory type by memory ability interaction (see Figure 2). As expected, significantly more adjectives were generated in the intellectual positive category for good relative to poor CMM targets (See Table 2 for means). Similarly, but contrary to expectation, significantly more adjectives were generated in the intellectual positive active category for good relative to poor ABM targets. Nevertheless, significantly more adjectives were generated for good CMM targets in the intellectual positive category relative to poor CMM, good ABM and poor ABM targets.

Intellectual Positive Active Category. The memory type and memory ability main effects were significant indicating that significantly more intellectual positive active adjectives were generated for CMM relative to ABM targets and for good relative to poor valence targets, respectively. The main effects, however, were qualified by the significant memory type by memory ability interaction. As expected, significantly more adjectives were generated in the intellectual positive active category for good relative to poor CMM targets (see Figure 3). There were no significant differences in the amount of intellectual positive adjectives generated for good relative to poor ABM targets. Additionally, significantly more adjectives were produced for good CMM targets relative to all other conditions.

Intellectual Negative Passive Category. The memory type and memory ability main effects were significant indicating that significantly more intellectual negative passive adjectives were generated for CMM relative to ABM targets and for poor relative to good

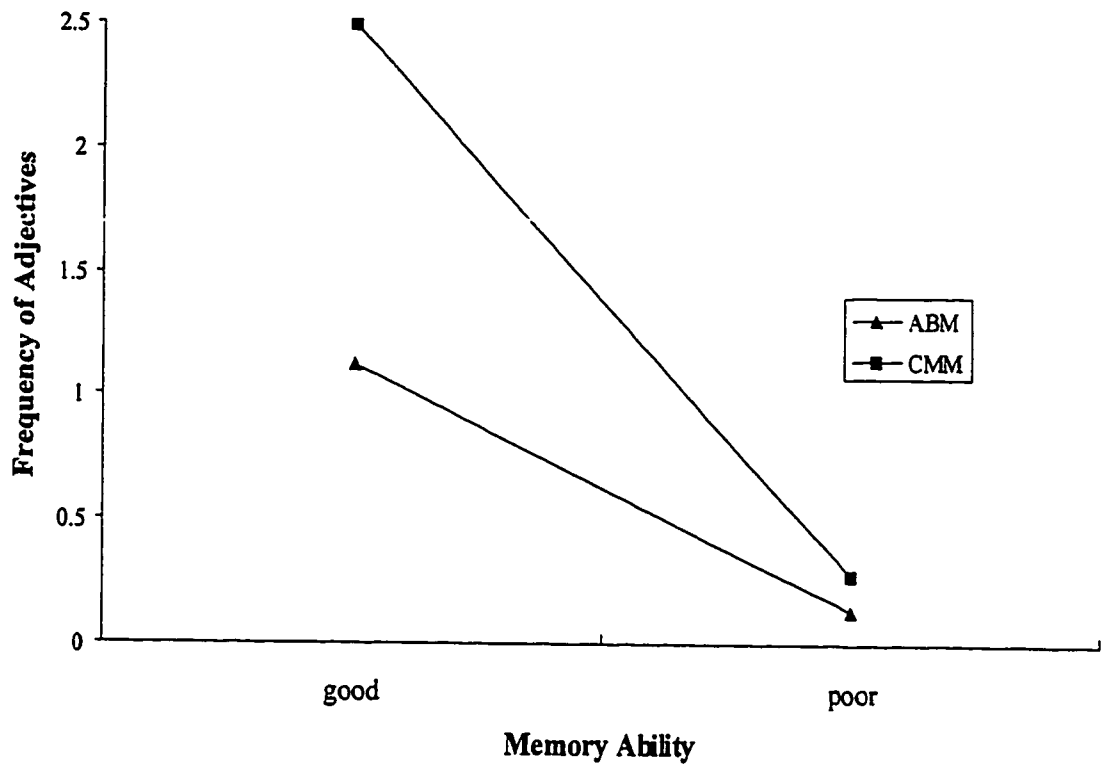


Figure 2. *Perceptions of Targets in terms of the Number of items Generated in the Intellectual Positive Category*

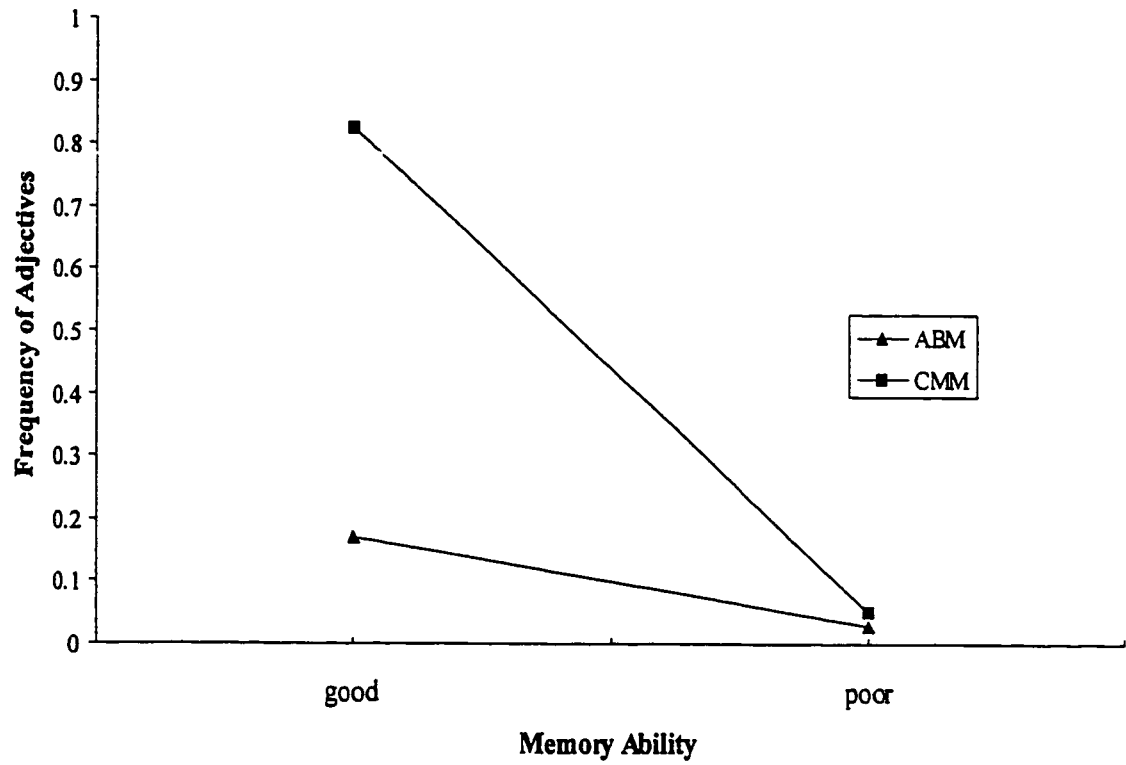


Figure 3. *Perceptions of Targets in terms of the Number of items Generated in the Intellectual Positive Active Category*

memory ability targets, respectively. The main effects, however, were qualified by the significant memory type by memory ability interaction. As expected, significantly fewer adjectives were produced in the intellectual negative passive category for good CMM relative to poor CMM targets (see Figure 4). No significant difference was found in the number of intellectual negative passive adjectives generated for good relative to poor ABM targets. In fact, significantly fewer adjectives were produced in the intellectual negative passive category for all target conditions relative to poor CMM targets.

Remaining Categories. For each of the Global Positive, Global Negative and History or Cause categories, a 2 (memory ability: good vs poor) x 2 (memory type: ABM vs. memory for course material) between-subjects ANOVA was conducted. No predictions were made for these analyses. No significant interactions between memory type and memory ability were found ($F_s < 1$) in these analyses. For the global positive category, significant memory ability ($F(1,217)=67.68, p<.001$) and memory type ($F(1,217)=4.89, p=.028$) main effects were found. Results indicated that overall, significantly more adjectives were generated for good relative to poor memory targets in that category. In addition, significantly more global positive adjectives were generated for ABM relative to CMM targets. For the global negative and history categories, only memory ability main effects were significant ($F(1,217)=50.27, p<.001$; $F(1,217)=80.00, p<.001$, respectively). For both categories, significantly fewer adjectives were produced for good relative to poor memory targets. For the history/cause category, common examples of responses to targets with poor autobiographical memory included bad



Figure 4. *Perceptions of Targets in terms of the Number of items Generated in the Intellectual Negative Passive Category*

childhood, Alzheimer's, amnesia, depression, brain-injury, drug-use, mental problems, neglect, repression, suppression, trauma and being elderly.

Gender Differences. There were no significant differences in the descriptions generated for good or poor autobiographical or course material targets between men and women. For each of the categories, a 2 (memory ability: good vs poor) x 2 (memory type: ABM vs. memory for course material) x 2 (participant/target sex: male/Bob vs. female/Mary) between-subjects ANOVA was conducted. Recall that participant sex was matched with target sex. No significant interactions between memory type, memory ability and participant/target sex were found ($F_s < 1$) for these analyses. The memory type by participant/target sex interactions and the memory ability by participant/target sex interactions were also not significant ($F_s < 1$).

Discussion

The results of Study 2 support the view that people have particular perceptions of targets with good or poor autobiographical memory and good or poor memory for course material. People's perceptions of ABM and CMM targets could be reliably organized into categories reflecting sociability, intellectual competence, global positive or negative descriptions as well as history or causal explanations for having good or poor memory. These categories seemed to reflect people's ideas about and the meaning they assign to having good or poor autobiographical and memory for task-related material.

The results of Study 2 provide support for autobiographical memory targets and

memory for course material targets being perceived as distinct, particularly in terms of people's perceptions of these targets in the intellectual domain. In general, a relatively consistent pattern of results emerged for CMM targets being more strongly associated with intellectual descriptions relative to ABM targets. Within the intellectual domain, the expected interactions between memory type and memory valence were found for the intellectual positive, intellectual positive active and intellectual negative passive categories. Specifically, for terms reflecting intellectual competence, as hypothesized, significantly more descriptions were generated for good relative to poor CMM targets. Contrary to expectation, good relative to poor ABM targets were perceived in terms of a greater number of intellectual positive trait terms as well. Overall, however, significantly more descriptions were generated for good CMM targets relative to all other conditions for intellectual positive trait terms indicating that having good memory for course material is most strongly associated with terms reflecting intellectual competence. Even stronger evidence for the association between CMM and intellectual ability was found in the intellectual positive active category. For this category, significantly more intellectually positive, active terms were generated for good relative to poor CMM targets; no difference was found between good and poor ABM targets in this category. In fact, significantly more intellectual positive active terms were generated for good CMM targets relative to poor CMM, good ABM and poor ABM targets. The latter result provides further evidence for the distinction between perceptions of ABM and CMM targets in the intellectual domain. Similarly, within the intellectual negative passive category,

significantly fewer terms were generated for good relative to poor CMM targets; no significant difference was found between good and poor ABM targets in this category. Additionally, significantly fewer adjectives were generated in all memory conditions relative to poor CMM targets, suggesting that poor memory for course material is most strongly associated with perceptions of passive intellectual incompetence. In only the intellectual negative category was the expected interaction not found.

A somewhat weaker pattern of results emerged for the relation between perceptions of ABM and social descriptions as compared to perceptions of CMM and intellectual descriptions. The predicted interaction for the social negative category was found. Specifically, in the social negative category, although no significant difference was found in the number of adjectives generated for good versus poor ABM targets, significantly more adjectives were elicited for poor ABM relative to both good and poor CMM targets in this category. This finding implies that perceptions of unsociability may relate more strongly to autobiographical memory than to memory for course material. Consistent with expectation, no significant difference was found between good and poor CMM targets in this category. In contrast to the social negative category, the hypothesized memory valence by memory type interaction did not emerge in the social positive category. Only memory valence and memory type main effects were found. Within this category, CMM targets were perceived in terms of a higher frequency of social positive adjectives relative to ABM targets, irrespective of memory valence. It is unclear why this difference emerged. In any case, the finding that having poor

autobiographical memory is significantly associated with negative social descriptions is consistent with the results from Studies 1a and 1b, and indirectly supports the value placed on being able to remember past personal events and experiences. With good autobiographical memory being perceived as normative, having poor autobiographical memory may be judged harshly or perceived as unusual.

The results of Study 2 could be criticized as evidence for a halo effect in which use of the terms “good” and “poor” autobiographical or memory for course material may have influenced participants’ global ratings of targets in either a positive or negative direction. According to this interpretation, it would be expected that good ABM and CMM targets would be perceived more positively in terms of both the social and intellectual descriptions relative to poor ABM and CMM targets. Somewhat consistent with a halo bias interpretation is the fact that across memory type in the global positive category, though not in the global negative category, significantly more adjectives were generated for good memory versus poor memory targets. Other results, however, suggest that people do differentiate between their perceptions of autobiographical and course material targets in terms of their content in the social and intellectual domains. In particular, impressions of CMM targets were more in terms of intellectual characteristics while partial support for impressions of ABM targets being more in terms of social characteristics was found.

In sum, the findings of Study 2 provide evidence that people may differentiate between autobiographical memory and memory for course material in terms of the social and intellectual dimensions identified in implicit personality theory (Rosenberg & Sedlak,

1972). I had theorized that these dimensions might be relevant to people's perceptions and these dimensions were shown to underlie participants' perceptions of memory targets even when no constraints were placed on their responses. In addition, consistent with the finding in Study 1a, having good memory for personal events and experiences does not appear to be perceived as the same as having good memory for course material. It is important to note that the intellectual and social dimensions have not been found to be orthogonal in research on implicit personality theory, suggesting that perceptions of sociability and intellectual competence are likely positively correlated. The latter finding suggests that the overlap in perceptions between autobiographical targets and memory for course material targets along these dimensions is consistent with the structure of implicit personality theory (Rosenberg et al., 1968).

Participants generated the central trait terms "warm" and "cold" very infrequently in their descriptions. However, when they did, they were limited to good (warm: $n = 2$) and poor (cold: $n = 1$) autobiographical memory targets. Neither of these terms were generated for good or poor course material targets. The low frequency of these terms is surprising in light of the theoretical arguments drawn out earlier. There may be a number of explanations for this result. One might speculate, for example, that descriptions that relate to these central traits may be reflected in the broader domains of social and intellectual descriptors.

It is also of interest that no significant interaction was found for the history/cause category in which participants' responses seemed to reflect their explanations for a

target's ability or lack of ability to recall past personal experiences and events. Based on these results, it would appear that participants did not perceive different causal explanations for having good or poor ABM or CMM.

Finally, no differences were found in the frequency of adjectives generated by men and women for male and female targets, respectively, for any of the memory conditions. One should note, however, that the sex of participant and of target were confounded, precluding any conclusions about the existence of gender differences in perceptions of identical targets defined in terms of autobiographical memory ability and memory for course material targets.

Study 3

Study 3 was an impression formation study in which participants were provided target individuals similar to those of Study 2 and were asked to rate the targets on provided scales. This study was designed to further address the issue of whether autobiographical memory is perceived to be a desirable quality as well as distinct from task-related memory. The goal was to replicate and extend the findings of Study 2 which indicate that people distinguish between autobiographical memory and task-related memory in terms of their perceptions of targets in particular domains. Specifically, the focus in Study 3 was on comparing people's perceptions of targets varying in the two types of memory, particularly with regard to the intellectual and social domains. It was hypothesized that autobiographical memory is distinguished from task-related memory by its stronger association to the social relative to the intellectual domain. Comparing

perceptions of autobiographical memory targets and memory for course material targets would also provide a link with past research on person impression which has focused on perceptions of general memory in terms of intellectual competence (Erber et al, 1990). As research by Erber (1989) indicates, having poor memory for deliberately acquired factual information is associated with perceptions of mental difficulties or intellectual incompetence. This perspective is in contrast to the literature reviewed on autobiographical memory in which the emphasis has been on its relation to a person's sense of self and identity as well as its role in social interaction. While it is clear that being able to remember factual material may have consequences for the self through the achievement of good grades, for example, having such memory does not necessarily reflect upon one's self identity as it is proposed for autobiographical memory. In addition, more information was provided in Study 3 about the targets to provide more complex, realistic targets. The information provided about the targets was adopted and slightly modified from the description used by Asch (1946) in his research on impression formation. Other than for ABM, the information included was primarily intellectual in description. This descriptive information was deliberately selected to be unrelated to the social dimension in order to observe the distinctive effect, if any, of the autobiographical memory variable.

Using a structured format, Study 3 examined differences in people's perceptions of targets with good or poor autobiographical, and with good or poor factual memory, specifically within the intellectual and social domains. As in Study 2, I used targets identified as having good or poor "memory for course material," given its pertinence to

our university sample. Most of the terms selected to represent the intellectual and social domains were generated by participants in Study 2 or were represented on Rosenberg et al.'s (1968) intellectual and social dimensions. Finally, although there was little direct evidence of its relevance to people's perceptions of memory targets in the open-ended format of Study 2, I included the central trait term "cold" for further comparison of people's perceptions of good and poor memory targets. As noted earlier, having good versus poor autobiographical memory can be taken to reflect one's commitment or attachment to others, which may be reflected in people's perceptions of warmth or coldness, respectively.

Hypotheses. I expected to replicate and extend my earlier findings on people's perceptions of good or poor autobiographical memory targets, and good or poor memory for course material targets. The design was a 2 (memory type: autobiographical memory vs. memory for course material) x 2 (memory ability: good vs. poor) x 2 (gender of target: "Bob" vs. "Mary") x 2 (participant sex). Participants were randomly assigned to one of the 8 experimental conditions. To review, I predict that participants will perceive good ABM targets as significantly more sociable relative to poor ABM targets. Smaller or no differences in participant ratings of ABM targets' intellectual competence were expected. As in Study 2, I expect that memory for course material targets will be perceived differently than autobiographical memory targets. I hypothesized a stronger relation between CMM targets and perceptions of intellectual competence relative to ABM targets in this domain. Specifically, I expected that good CMM targets will be perceived

as more intellectually competent than poor CMM targets. It was not expected that differences in participants' ratings of good and poor CMM targets will be found within the social domain. Finally, in Study 3 sex of participant and sex of target were crossed in order to assess the existence of gender differences in participants' perception.

Method

Participants. Participants were recruited in the cafeterias and coffee shops of Concordia University campuses. Potential participants were approached on a random basis and were asked to complete a one-page questionnaire. A total number of 672 students (335 men, 337 women) participated. Participants ranged from 16 to 71 years of age with a mean age of 23.5 years. Participants between the ages of 18 to 30 years comprised 91.5% of the sample. Two-hundred and twenty five individuals refused to participate. This refusal rate (33.4%) was related to difficulties of approaching students, in cafeterias and coffee shops, who were often eating, relaxing between classes, or studying. Data was collected by six different researchers.

Materials and Procedure. As in Study 2, there were 2 kinds of targets presented to participants - targets varying in autobiographical memory and targets varying in memory for factual information for a total of 4 different targets (see Appendix E for target stimuli). The design of this study is a 2 (memory type: autobiographical memory vs. memory for course material) x 2 (memory ability: good vs. poor) x 2 (gender of target: "Bob" vs. "Mary") x 2 (participant sex). Participants were told that we were interested in the impressions that people form of another individual when provided with limited

information. Participants first completed a consent form. Next, some participants were asked to read the lead, “Mary is critical of her own work, practical, determined, and has...” followed by one of 4 descriptions: 1) “poor memory for personal events and experiences in her past” (poor autobiographical memory condition), 2) “good memory for personal events and experiences in her past” (good autobiographical memory condition), 3) “poor memory for course material” (poor task-related memory condition), and 4) “good memory for course material” (good task-related memory condition). For male targets, “Bob” replaced “Mary” and “his” replaced “her”. Each participant was presented with only one of these target descriptions. Participants were then asked to form an impression of the target and to rate the target on adjectives that reflect sociability and intellectual ability (see Appendix F for questionnaire). The trait terms representing high sociability were friendly, outgoing and sociable; trait terms reflecting low sociability were cold, unpopular and unsympathetic. Intellectual competence was assessed with the trait terms bright, intelligent, and smart and intellectual incompetence was assessed with the trait terms incompetent, and slow. Participants reported their impressions on a 5-point scale with endpoints labelled not at all (1) and very (5) that followed each trait term. Trait terms were presented in one of three random orders.

Results

Nine cases were identified as univariate outliers on 9% of the variables due to their high Z scores on the term incompetent. These outliers were adjusted to the mean

plus three standard deviations. Using Mahalanobis distance with $p < .001$ (Tabachnick and Fidell, 1996), 16 cases were identified as multivariate outliers and were excluded from the analyses. With the 16 outliers removed, 656 cases remained. Tests for normality identified severe skew on two variables (slow and incompetent). Analyses conducted with and without adjustment for skew led to the same pattern of results. As such, for sake of clarity, the results are reported for the raw data. The assumption of homogeneity of variance for all analyses was met.

Principal components analysis with oblique rotation was performed on the responses to the 11 trait terms. Contrary to expectation, three rather than four factors were extracted. A loading cut-off of .45 was used for the inclusion of a trait term in a factor. The first factor was “Intellectual Competence” and was composed of the trait terms bright, intelligent, smart and slow. The second factor was “Sociability” and was composed of the trait terms friendly, outgoing and sociable. The third factor was “Unsociability” and was composed of the trait terms cold, incompetent, unpopular, and unsympathetic. Loading of variables on factors, communalities, and percents variance are displayed in Table 3. To be more conservative, the Sociability, Unsociability and Intellectual Competence indices were created by calculating the mean of responses to the adjectives that formed each factor rather than using factor scores.

The major hypothesis of this study was that good ABM targets would be rated significantly higher by participants on the Sociability index and lower on Unsociability index relative to poor ABM targets. No significant differences were expected to emerge

Table 3

Factor Loadings for Trait Terms in Study 3

| Item | Factor loading | | | Communality |
|---------------|----------------|-------------|-------------|-------------|
| | 1 | 2 | 3 | |
| Intelligent | 0.89 | 0.01 | 0.11 | 0.78 |
| Smart | 0.87 | 0.01 | 0.12 | 0.76 |
| Bright | 0.85 | 0.12 | 0.21 | 0.75 |
| Unpopular | 0.00 | 0.71 | -0.01 | 0.55 |
| Cold | 0.13 | 0.72 | -0.19 | 0.57 |
| Unsympathetic | 0.01 | 0.64 | -0.14 | 0.46 |
| Friendly | 0.01 | -0.22 | 0.71 | 0.65 |
| Outgoing | 0.16 | -0.00 | 0.72 | 0.58 |
| Sociable | 0.01 | -0.26 | 0.73 | 0.70 |
| Slow | -0.64 | 0.28 | 0.21 | 0.31 |
| Incompetent | -0.43 | 0.53 | 0.33 | 0.53 |

Note. Boldface indicates highest factor loadings.

between good and poor course material (CMM) targets within the social domain. On the intellectual competence index, it was expected that good course material targets would be rated significantly higher than poor course material targets. Smaller or no significant differences were expected to be found between good and poor ABM targets on the intellectual index. Finally, no significant effects were expected for sex of target or sex of participant.

Preliminary analyses were conducted to address whether there were gender differences in ratings of targets. A 2 (memory valence: good vs poor) x 2 (memory type: ABM vs. memory for course material) x 2 (target sex: Bob vs Mary) x 2 (participant sex) between-subjects MANOVA was conducted on the sociability, unsociability and intellectual competence indices. No significant Sex of participant x Sex of target interaction was found nor did any other significant interactions emerge involving sex of participant or sex of target. The multivariate participant sex main effect was significant ($F(3,634)=5.71, p<.001$). Univariate analyses revealed that the significant sex difference occurred on the intellectual competence and unsociability indices. T-tests revealed that regardless of memory type or memory valence, men ($M=1.99, SD=.54$) rated targets significantly higher on the unsociability index relative to women ($M=1.92, SD=.79; t(634)=1.69, p=.046$), and women ($M=3.75, SD=.86$) rated targets significantly higher on the intellectual competence index relative to men ($M=3.59, SD=.79; t(649)=2.60, p=.009$). Given that these differences are unrelated to my hypotheses, all

subsequent analyses were conducted on the total sample collapsing across sex of target and of participant.

A 2 (memory ability: good vs poor) x 2 (memory type: ABM vs. memory for course material) between-subjects MANOVA was conducted on the sociability, unsociability and intellectual competence indices. The hypothesized effect was a 2 (memory ability) x 2 (memory type) interaction. Consistent with this hypothesis, the significant main effects were qualified by a significant memory valence by memory type interaction ($F(3, 634)=9.37, p<.001$). Univariate analyses indicated that the two-way interaction was significant for each of the three indices. To examine the significant interactions in these three categories, post-hoc comparisons between the means for each of the four conditions (good ABM, poor ABM, good CMM and poor CMM) were performed. Bonferonni corrections were made (see Table 4).

Sociability. Good ABM targets were perceived as significantly more sociable relative to all other target conditions. On the sociability index, there were no significant differences between good and poor CMM targets (see Table 5). The interaction qualified a significant memory ability main effect (see Figure 5).

Unsociability. On the unsociability index, the significant interaction indicated that good relative to poor ABM targets were rated significantly lower; ratings of good and poor CMM targets did not significantly differ on this index (see Figure 6). In fact, poor ABM targets had the highest mean score on the unsociability index. Neither the memory ability nor memory type main effects were significant.

Table 4

Post hoc Comparisons of Mean Ratings for All Targets on the Sociability, Unsociability, and Intellectual Competence Indices in Study 3

| Dependent Variable | ANOVA | | | Pairwise Comparisons |
|-------------------------|-----------|-----------|----|--|
| | | F | df | |
| Sociability | Corrected | | | |
| | Model | 14.42*** | 3 | Good ABM>Poor ABM*** |
| | MA | 24.88*** | 1 | Good ABM> Good CMM* |
| | MT | 0.001 | 1 | Good ABM>Poor CMM** |
| | MA x MT | 18.60*** | 1 | Good CMM>Poor ABM** Good CMM~Poor Cmm Poor ABM<Poor CMM* |
| Unsociability | Corrected | | | |
| | Model | 3.82* | 3 | Good ABM<Poor ABM* |
| | MA | 1.21 | 1 | Good ABM~Good CMM |
| | MT | 2.97 | 1 | Good ABM ~Poor CMM |
| | MA x MT | 7.57** | 1 | Good CMM<Poor ABM* Good CMM~Poor CMM Poor ABM>Poor CMM* |
| Intellectual Competence | Corrected | | | |
| | Model | 48.34*** | 3 | Good ABM>Poor ABM*** |
| | MA | 136.47*** | 1 | Good ABM~Good CMM |
| | MT | 5.14* | 1 | Good ABM>Poor CMM*** |
| | MA x MT | 3.85* | 1 | Good CMM>Poor ABM*** Good CMM>Poor CMM*** Poor ABM>Poor CMM* |

Note. MA = Memory ability; MT = Memory type.

Pairwise comparisons done only when omnibus comparisons for Memory Ability x Memory Type interaction effect was significant.

~ denotes no significant difference in pairwise test.

* p<.05. **p<.01. ***p<.001.

Table 5

Mean Ratings of All Targets on the Sociability, Unsociability and Intellectual Competence Indices in Study 3

| Indices | Good ABM | | | Poor ABM | | | Good CMM | | | Poor CMM | | |
|-------------------------|-----------------------|-----------|----------|-----------------------|-----------|----------|---------------------|-----------|----------|-----------------------|-----------|----------|
| | <u>M</u> | <u>SD</u> | <u>n</u> | <u>M</u> | <u>SD</u> | <u>n</u> | <u>M</u> | <u>SD</u> | <u>n</u> | <u>M</u> | <u>SD</u> | <u>n</u> |
| Sociability | 3.25 ^{a,e,g} | 0.73 | 162 | 2.69 ^{a,f,h} | 0.80 | 154 | 2.99 ^{f,g} | 0.77 | 171 | 2.95 ^{e,h} | 0.79 | 153 |
| Unsociability | 2.06 ^g | 0.67 | 162 | 2.37 ^{g,h,i} | 0.76 | 154 | 2.10 ⁱ | 0.63 | 171 | 2.18 ^h | 0.74 | 153 |
| Intellectual Competence | 4.01 ^{a,b} | 0.66 | 162 | 3.44 ^{a,c,g} | 0.83 | 154 | 3.99 ^{c,d} | 0.74 | 171 | 3.19 ^{b,d,g} | 0.77 | 153 |

Notes. ABM = Autobiographical memory; CMM= Course material memory.

Means denoted by superscript a,b,c,d are significantly different at the p<.001 level.

Means denoted by superscript e,f are significantly different at the p<.01 level.

Means denoted by superscript g,h,i are significantly different at the p<.05 level.

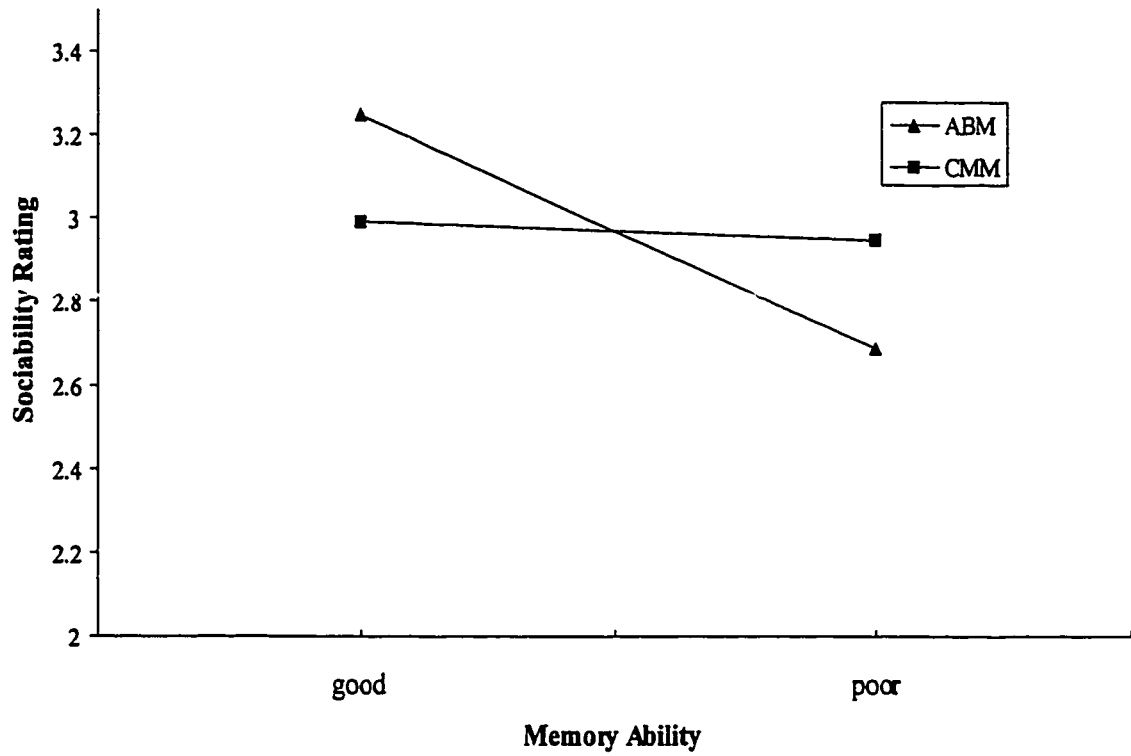


Figure 5. *Perceptions of Targets on the Sociability Index as a Function of the Interaction between Memory Ability and Memory Type*



Figure 6. *Perceptions of Targets on the Unsociability Index as a Function of the Interaction between Memory Ability and Memory Type*

Intellectual Competence. Consistent with our predictions, for the intellectual competence index, good relative to poor CMM targets were rated significantly higher (see Figure 7). Similarly, but to a lesser extent, good relative to poor ABM targets were rated significantly higher by participants on the intellectual competence index. Furthermore, poor CMM targets were perceived as significantly less intellectually competent relative to all other conditions. The interaction qualified significant memory type and memory ability main effects.

Specific Traits. Further analyses were conducted to explore which specific trait terms within the high and low sociability indices differentiated between good and poor ABM targets. A 2 (memory ability: good vs poor) x 2 (memory type: ABM vs. memory for course material) between-subjects MANOVA was conducted on the ratings for the six trait terms that composed each of these two indices. In line with the above results, the memory ability by memory type interaction was significant, ($F(11,626)=3.17, p<.001$). Univariate analyses revealed that among the high sociability trait terms, good ABM targets were rated significantly higher on the trait term “sociable” and “outgoing” relative to poor memory targets, $F(1,636)=18.12, p<.001, F(1,636)=12.27, p<.001$. Among the low sociability trait terms, poor ABM targets were rated significantly higher on the trait term “cold” ($F(1,636)=5.80, p=.016$) relative to good ABM targets (ABM: $M_{\text{good}} = 2.29, M_{\text{poor}} = 2.45$; Course: $M_{\text{good}} = 2.37, M_{\text{poor}} = 2.14$)(See Table 6 for means). The interaction qualified the significant memory ability main effect. The memory type main effect was not significant ($p>.05$).

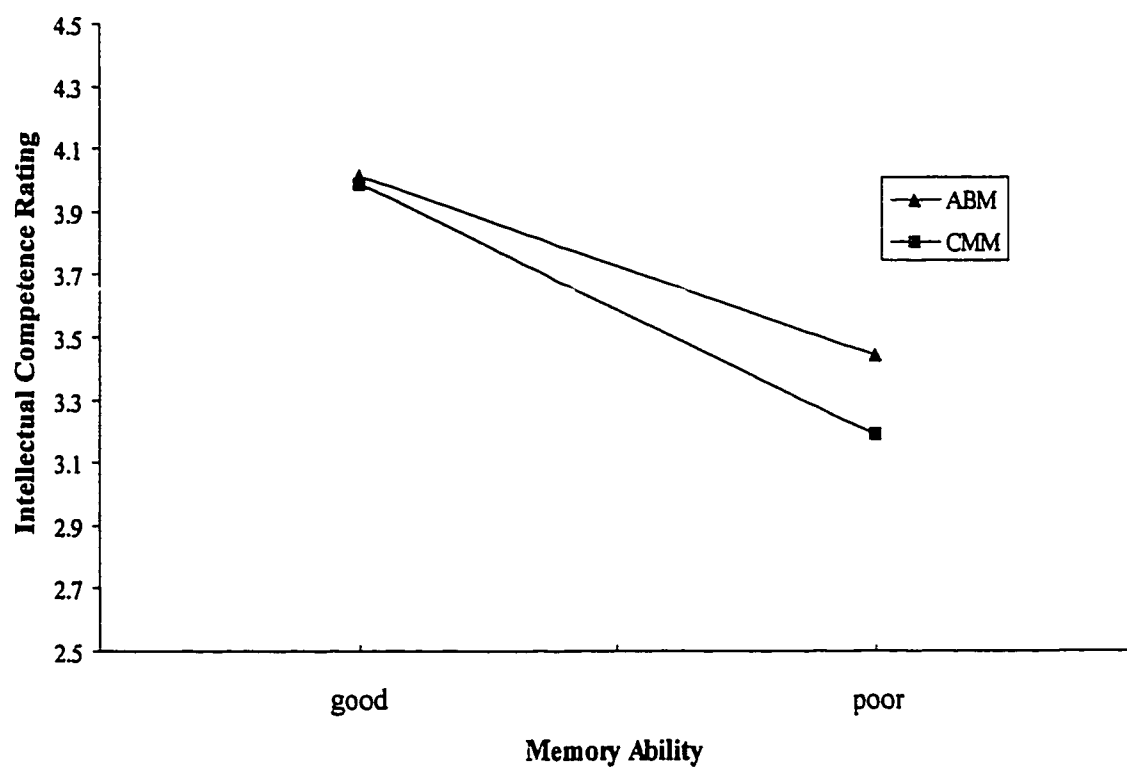


Figure 7. *Perceptions of Targets on the Intellectual Competence Index as a Function of the Interaction between Memory Ability and Memory Type*

Table 6

Mean Ratings of Autobiographical Memory Targets on the Individual Trait
Terms in Study 3

| Variables | Good ABM | | | Poor ABM | | |
|---------------|----------|-----------|----------|----------|-----------|----------|
| | <u>M</u> | <u>SD</u> | <u>n</u> | <u>M</u> | <u>SD</u> | <u>n</u> |
| Friendly | 3.34 | 0.80 | 162 | 2.95 | 0.95 | 154 |
| Outgoing | 3.18** | 0.94 | 162 | 2.46** | 1.02 | 154 |
| Sociable | 3.22** | 0.94 | 162 | 2.63** | 1.02 | 154 |
| Intelligent | 4.07 | 0.72 | 162 | 3.52 | 0.94 | 154 |
| Smart | 3.98 | 0.76 | 162 | 3.48 | 0.94 | 154 |
| Bright | 3.99 | 0.75 | 162 | 3.38 | 0.96 | 154 |
| Unpopular | 2.34 | 1.02 | 162 | 2.73 | 1.15 | 154 |
| Cold | 2.29* | 0.92 | 162 | 2.45* | 1.15 | 154 |
| Unsympathetic | 2.16 | 1.07 | 162 | 2.40 | 1.11 | 154 |
| Slow | 1.46 | 0.82 | 162 | 2.11 | 1.10 | 154 |
| Incompetent | 1.47 | 0.81 | 162 | 1.83 | 0.94 | 154 |

Note. ABM = Autobiographical memory.

* $p < .05$. ** $p < .001$.

Discussion

The results of Study 3 indicate that, as expected, good relative to poor autobiographical memory targets were perceived to be significantly more sociable. This finding was specific to autobiographical memory targets, suggesting that autobiographical memory seems to be particularly relevant to perceptions of sociability. In fact, the ratings on sociability were highest for good ABM relative to all other targets. Similarly, ratings of unsociability were highest for poor ABM targets relative to all other target conditions. These results are stronger than those found in Study 2 in which the relation between perceptions of sociability and autobiographical memory were somewhat weaker than predicted. The addition of more structure to the task of forming impressions of targets, relative to Study 2, appeared to strengthen the predicted results.

Thus, consistent with researchers' view of the social functions of autobiographical memory, lay persons also perceive information about others' autobiographical memory as suggestive of their social capacity. In contrast, participants did not perceive targets with good relative to poor memory for course material as being significantly more sociable. In fact, consistent with the results of Study 2, people's differential perceptions of targets with good or poor memory for course material were tied specifically to the intellectual domain. Targets with good relative to poor memory for course material were perceived to be significantly more intellectually competent and not significantly more sociable or unsociable. These results provide further evidence that autobiographical memory and memory for course material are not perceived in the same manner and do not have the

same significance for individuals in terms of their impression of others. In addition, the association found between recall of factual information and perceptions of intellectual competence is consistent with the existing literature linking people's perceptions of memory failure and intellectual ability (Erber, 1989; Erber et al., 1990). In addition, as in Study 2, good autobiographical memory targets were perceived as significantly more intellectually competent relative to poor autobiographical memory targets. This finding, however, was weaker relative to participants' ratings for good relative to poor course material targets on this index. In addition, ratings on intellectual competence were lowest for poor CMM targets relative to all other target conditions, again suggesting that perceptions of CMM targets are more strongly related to the intellectual domain relative to ABM targets. Overall, the results of Study 3 support the proposed distinction in people's perceptions of targets who vary in ABM and memory for factual information.

Examination of the specific trait terms which differentiated between perceptions of good and poor autobiographical memory targets revealed that the term "cold" was most strongly related to perceptions of poor autobiographical memory. With respect to both Asch's central trait terms and implicit personality theory, this result suggests that not being able to recall one's personal experiences and events is related to an identified central term tied specifically to sociability. Consistent with the existing theoretical literature on the significance of autobiographical memory, having poor autobiographical memory may suggest a degree of detachment, or lack of connection to others. The literature does not suggest, for instance, that having poor autobiographical memory would have implications

for the level of an individual's liveliness. It is also possible that participants' perceptions in terms of coldness are influencing the observed effect on other descriptive terms such as unpopular. Applying the findings from Asch's research (1946), the impression that someone is cold might affect the type of inference or impression that people form on related terms such as unpopular. Someone who is perceived as cold, for example, might also be perceived as unpopular.

No significant differences were found between men and women's perceptions of ABM or CMM targets. In fact, the only difference that was found between men and women's perceptions of targets was that men generally rated targets significantly higher in unsociability relative to women and women rated targets significantly higher on intellectual competence relative to men. These gender differences do not relate to the hypotheses of the present study nor do they clearly relate to the literature on gender differences in autobiographical memory reviewed earlier. Despite some support in the literature that having good autobiographical recall may be more valued by women relative to men (Buckner and Fivush, 1998; Fivush, 1998) no evidence for gender differences were found for perceptions of targets with good or poor ABM or CMM in this study. These results are also consistent with those of Studies 1a and 1b in which men and women did not differ in their views about the desirability of having good autobiographical memory as well as on other items relating to the nature of autobiographical memory.

In sum, results of Study 3 provided strong support that having good ABM has significance in terms of people's perceptions of others. A person with good

autobiographical recall seems to communicate that person's social receptiveness. As predicted, individuals also appear to think about autobiographical memory and memory for factual information differently in terms of the types of impressions they form.

Study 4

Studies 1 through 3 suggested that perceptions of others' autobiographical memory is strongly related to perceptions of others' sociability. Study 4 aimed to assess whether people's perceptions of targets with varying autobiographical memory ability can be understood in terms of more specific traits within the social domain. Consistent with theory and research on the functions of autobiographical memory, it appears that individuals view the capacity to remember personal events and experiences as socially meaningful and indicative of a person's social receptiveness. To better understand the specific nature of the difference in people's perceptions of good and poor autobiographical recall in others, additional trait terms related to sociability and unsociability were introduced as dependent measures in Study 4. In particular, I added the trait term "warm" to explore whether the warm-cold dimension had particular relevance to perceptions of autobiographical memory within the social domain. The other terms were selected based on participants' responses in Study 2 and Rosenberg et al.'s (1968) sociability dimension. I was interested in examining whether perceptions of having good autobiographical recall were tied to the central trait term warm, communicating a sense of social connection or engagement as suggested by the literature on autobiographical memory.

Hypotheses. The main hypothesis was that the better the autobiographical memory of targets, the more positively they would be perceived on terms reflecting sociability. Particular attention was paid to participants' perceptions of targets with good or poor autobiographical memory on the central warm-cold dimension. In light of the results of Study 3, we hypothesized that a target having access to memories for personal events and experiences is perceived as warm, whereas one having poor ABM would be perceived as cold.

Method

Participants. Participants were recruited in a cafeteria at Concordia University and were asked to complete a one-page questionnaire. Potential participants were approached on a random basis. Method of participant recruitment was identical to the one used in Study 3. A total of 259 students (131 men, 128 women; 125 in the poor ABM, 133 in the good ABM condition) ranging from 17 to 51 years of age agreed to participate, ($M = 23$ years); 65 students refused to participate. Participants between the ages of 18 to 30 years comprised 94.2% of the sample.

Materials and Procedure. The methodology adopted in Study 4 is identical to the one used in Study 3. Only one type of stimuli, however, was presented - targets varying in autobiographical memory (see Appendix E for target stimuli). Participants were told that we were interested in the impressions that people form of another individual when provided with limited information. Participants first completed a consent form. Next,

female participants were presented the following description: “Mary is critical of her own work, practical, determined, and has _____ memory for personal events and experiences in her past”. The blank space was filled with either “poor” or “good”. For male participants, “Bob” replaced “Mary” and “his” replaced “her”. Given that no evidence for gender differences was found in participants’ perceptions of memory targets in the previous study, cross gender ratings were not assessed in this study. Participants were asked to form an impression of the target. Participants rated the target in terms of the following traits: cooperative, friendly, kind, and warm (high sociability traits), and irritable, unsociable, unsympathetic, and unpopular (low sociability traits) (see Appendix G for the questionnaire). For each trait, participants indicated their perceptions on a 5-point scale with endpoints labelled not at all (1) and very (5). Trait terms were presented in one of three random orders.

Results

No univariate outliers were found. Using Mahalanobis distance with $p < .001$ (Tabachnick and Fidell, 1996), one case was identified as a multivariate outlier and was excluded. With this outlier removed, 258 cases remained. Tests for normality and homogeneity of variance were also conducted for each multivariate analysis of variance (MANOVA) reported below. The assumptions of normality and homogeneity of variance were met for all analyses.

Principal components analysis with oblique rotation was performed on the ratings

for the eight trait terms to determine whether a high sociability index and a low sociability index could be created. Two factors were extracted. A loading cut-off of .45 was used for the inclusion of a trait term in the interpretation of a factor. A high sociability index was created based on the mean of the adjectives that formed Factor 1 (cooperative, friendly, kind, and warm). A low sociability index was created based on the mean of the adjectives that formed Factor 2 (irritable, unpopular, unsociable, and unsympathetic). Loading of variables on factors, communalities, and percents of variance are shown in Table 7. The high and low sociability indexes were significantly correlated ($r = -.45, p < .001$).

The major hypothesis of this study was that good relative to poor autobiographical memory (ABM) targets would be rated by participants as significantly more sociable. Preliminary analyses were conducted to address whether differences existed in men and women's ratings of good and poor ABM targets on sociability. A 2 (memory ability: good vs. poor ABM) \times 2 (participant gender: men vs. women) between-subjects MANOVA on sociability scores revealed no significant interaction or sex main effect ($F_s < 1$). Thus, no significant differences in men and women's ratings of good and poor ABM targets were found. A one-way between-subjects MANOVA (memory ability: good vs. poor ABM) was conducted on the high and low sociability indices. The expected main effect for memory valence was significant, indicating that good and poor ABM targets were perceived by participants to be significantly different on sociability, $F(2,253) = 3.18, p = .043$. As predicted, univariate tests indicated that good ABM targets ($M = 3.22, SD = .71$) were rated higher on the high sociability index

Table 7

Factor Loadings for Trait Terms in Study 4

| Item | Factor loading | | Communality |
|---------------|----------------|-------------|-------------|
| | 1 | 2 | |
| Warm | 0.69 | -0.35 | 0.51 |
| Cooperative | 0.61 | -0.32 | 0.40 |
| Kind | 0.81 | -0.19 | 0.68 |
| Friendly | 0.79 | -0.41 | 0.64 |
| Unsympathetic | -0.35 | 0.69 | 0.48 |
| Unpopular | -0.27 | 0.64 | 0.41 |
| Irritable | -0.20 | 0.76 | 0.58 |
| Unsociable | -0.40 | 0.61 | 0.41 |

Note. Boldface indicates highest factor loadings.

($F(1, 254)=3.77, p <.05$) than poor ABM targets ($M=3.05, SD=.75$) and lower on the low sociability index ($M=2.43, SD=.75; F(1, 254)=5.30, p=.022$) than poor ABM targets ($M=2.64, SD=.70$).

Further analyses were conducted to explore which specific trait terms within the high and low sociability indices differentiated between good and poor ABM targets. In particular, to address ratings for “warm,” a one-way between subjects MANOVA on all 8 trait terms with memory ability as the between subjects factor was performed. The memory ability main effect was significant, ($F(8, 242)=2.08, p<.039$) indicating that participants’ ratings of good and poor ABM targets were significantly different. Univariate analyses revealed that among the high sociability trait terms, good ABM targets were rated significantly higher on the trait term “warm” relative to poor memory targets, $F(1, 249)=5.59, p=.019$. Among the low sociability trait terms, poor ABM targets were rated significantly higher on the trait terms “unpopular” ($F(1, 249)=9.48, p=.002$) and “unsympathetic” ($F(1, 249)=4.57, p=.034$) relative to good ABM targets. (See Table 8 for means). There were no other significant results in the univariate analyses.

Discussion

As predicted, the results of Study 4 indicated that participants had a significantly more favourable impression of targets with good as opposed to poor autobiographical memory. As expected, this pattern of findings was apparent for both high and low sociability indices and consistent with the results of Study 3.

Of particular interest is the finding that participants differentiated most strongly

Table 8

Mean Ratings of Autobiographical Memory Targets on the Individual Trait
Terms in Study 4

| Variables | Good ABM | | | Poor ABM | | |
|---------------|----------|-----------|----------|----------|-----------|----------|
| | <u>M</u> | <u>SD</u> | <u>n</u> | <u>M</u> | <u>SD</u> | <u>n</u> |
| Warm | 3.03* | 0.95 | 133 | 2.74* | 1.03 | 125 |
| Cooperative | 3.29 | 1.14 | 133 | 3.26 | 1.03 | 125 |
| Kind | 3.31 | 0.91 | 133 | 3.12 | 0.96 | 125 |
| Friendly | 3.26 | 0.83 | 133 | 3.14 | 1.03 | 125 |
| Irritable | 2.96 | 1.13 | 133 | 3.03 | 1.15 | 125 |
| Unsympathetic | 2.21* | 0.98 | 133 | 2.49* | 1.10 | 125 |
| Unsociable | 2.24 | 1.04 | 133 | 2.35 | 0.99 | 125 |
| Unpopular | 2.27** | 1.04 | 133 | 2.68** | 1.10 | 125 |

Note. ABM= Autobiographical memory.

* $p < .05$. ** $p < .01$.

between good and poor memory targets on their ratings on the “warm” trait term among the high sociability trait terms. As suggested previously, this is noteworthy given that warm and cold are central evaluative traits (Asch, 1946). As noted earlier, in Study 3, poor ABM targets were rated significantly higher on the trait term “cold” relative to good ABM targets among the low sociability trait terms. Taking these findings together, how should they be interpreted ? One possible interpretation is that consistent with the literature on autobiographical memory, remembering one’s past personal events and experiences may be associated with a sense of personal ties or a valuing of one’s past which may be interpreted as warmth or general receptiveness towards others. However, the findings also indicate that other trait terms such as unpopular and unsympathetic, which have not been shown to be central evaluative traits, may be equally relevant to perceptions of autobiographical memory.

It is also possible that given the very limited information provided in describing the good and poor autobiographical memory targets, only very general impressions such as the overall warmth or coldness of a target could be developed in this context. In addition, Study 4 was conducted in university cafeterias and coffee shops where participants were further constrained to form quick and perhaps more global or superficial impressions of targets. This context likely did not facilitate the development of more complex impressions.

Studies 3 and 4 could be further criticized in terms of the amount and content of information provided to participants based on which they were asked to form

impressions. In particular, the descriptions of the targets were simple and minimal in terms of the amount of information provided. It could be argued that impressions of ABM targets were more specific to the social domain because the information about memory for personal events and experiences was the only social information provided among terms that were generally more suggestive of intellectual ability. The description of having good or poor memory for personal events and experiences may seem particularly salient or may contrast markedly when embedded in the description “critical of his/her own work, practical and determined.” From this perspective, the only socially meaningful information that varied across conditions was the information about the targets’ autobiographical memory ability. Nevertheless, it remains by this account that ABM is particularly meaningful from a social, interpersonal perspective.

Additionally, the information about the target’s autobiographical memory ability was always included as the last descriptive information provided about the target. It could be argued that the particular effects observed for ABM only occur by means of a recency effect, that is, the effect for ABM would not be observed if the memory information was not provided at the end of the description. This argument is not consistent with the empirical literature on impression formation which suggests that primacy effects tend to be more prevalent when participants are given an impression formation goal (Zebrowitz, 1990). Nevertheless, an additional study was conducted to address the possible influence of the order of the autobiographical memory information in the target description on people’s impressions. The method of participant recruitment

and the procedure were identical to the ones used in Study 4. A total of 130 female students ranging from 17 to 56 years of age agreed to participate ($M = 22.8$ years); 40 students refused to participate. The only difference between this study and Study 4 is the order of presentation of the autobiographical memory information within the target description. Participants were presented the following description “Mary is critical of her own work, has _____ memory for personal events and experiences in her past, is practical, and determined”. The blank space was filled with either “poor” or “good”. Participants were asked to rate targets in terms of the same trait terms used in Study 4. In data screening, no univariate or multivariate outliers were found. The assumptions of normality and homogeneity of variance were also met. The major hypothesis of this study was that good relative to poor autobiographical memory (ABM) targets would be rated by subjects as significantly more sociable. The same sociability indices were derived as in Study 4. A one-way MANOVA (memory valence: good vs poor ABM) on sociability scores revealed a significant main effect for memory valence indicating that good ($n = 65$) and poor ABM ($n = 65$) targets were perceived by subjects significantly differently on sociability, $F(2,127) = 9.33$, $p < .001$. As predicted, univariate tests indicated that good ABM targets ($M = 2.21$, $SD = .91$) were rated lower on the low sociability index relative to poor ABM targets ($M = 2.77$, $SD = .83$; $F(1, 128) = 18.54$, $p < .001$). Contrary to prediction, no significant differences were found between good ($M = 3.12$, $SD = .84$) and poor memory targets on the high sociability index ($M = 2.99$, $SD = .94$; $F < 1$). These results seem to generally indicate that the order of the autobiographical information within the

target description does not alter the main findings. In other words, it is not necessary to have a recency effect to observe the effect of ABM on judgments of sociability for the targets of Study 4. In all subsequent studies, the order of the autobiographical information was not altered, given that order does not seem to have an effect on the findings.

Mediation Analyses. Another possible interpretation of the results of Study 4 is that if good autobiographical memory leads to perceptions of warmth, this “warmth” perception may be mediating other effects observed on other sociable trait terms. Consistent with Asch’s work, participants’ perceptions of the targets in terms of warmth may be influencing their ratings of the targets in terms of other traits related to sociability. In addition, unlike the central trait terms warm and cold, the characteristic of being unpopular does not imply from a theoretical perspective a disinterest in the past or a lack of social connection. The trait term unsympathetic, however, could be seen as synonymous with cold in terms of its meaning, although it was not found to significantly differentiate between good and poor ABM targets in Study 3.

To test whether warm mediated the observed effects of memory type on the other sociability trait terms in Study 4, a series of regression analyses were conducted. Following the method recommended by Baron and Kenny (1986), only two of the eight dependent variables, unpopular and unsympathetic, met the criteria for testing the mediating effect of warm. In a mediator analysis (the mediating effect of warm on the independent variable of memory type), the following three criteria must hold: (1) memory

type must be related to warm (2) memory type must be related to the dependent variables and (3) warm must be related to the dependent variables. Results indicated that criteria 1 was met, criteria 2 was met for only the two dependent variables mentioned above and criteria 3 was met for all dependent variables.

As hypothesized, results indicated that for these two dependent variables, there was evidence of a mediating effect of warm. Specifically, the effect of memory type (good versus poor ABM) on unpopular was slightly attenuated ($\beta=.352$, $p=.009$) and for unsympathetic eliminated ($\beta=.166$, ns) when warm was included in the model relative to when it was excluded (unsympathetic: $\beta=.270$, $p < .05$; unpopular: $\beta=.399$, $p = .003$). These effects were evident by the decrease in the significance and magnitude of the regression coefficient for the memory type independent variable. The mediating effect of warm was greatest for the dependent variable unsympathetic and to a lesser extent for unpopular. Note that it is only for the individual items unsympathetic, unpopular and warm that participants' ratings significantly differed across good and bad ABM targets. Unsympathetic and unpopular were also tested to determine if they were better mediators than warm. Results indicated that neither trait term qualified for mediation analyses. In sum, these results support the mediating effect of warm on the relation between memory type and participants' ratings on some of the other dependent variables. Participants appear to develop an impression of the good ABM target as warm which then influences their ratings of the target on the other sociability trait terms.

These results may also indicate that the trait term warm functions as a central trait term when forming impressions of good and poor ABM targets.

Given these results, an examination of cold as a possible mediator of the relation between the memory type by memory ability interaction and the other dependent variables included in Study 3 was also examined. Mediation analysis was only possible for the dependent variables of sociable and outgoing given that one of the necessary conditions for conducting such analyses, namely that the dependent variables be related to the memory type by memory ability interaction was not met by the other dependent variables. Contrary to expectation, for both of these trait terms, cold did not act as a mediator. No change in the significance or magnitude of the regression coefficient was found when cold was included or excluded from the model. It is unclear why cold did not act as a mediator as did warm in Study 4.

Study 5

Study 5 examined whether people perceive targets with poor autobiographical memory as cold relative to targets with good autobiographical memory. The goal was to replicate the link found between good and poor autobiographical memory and perceptions on the warm-cold dimension within the social domain. Based on the results of the previous studies and the literature on autobiographical memory, we hypothesized that being able to recall one's personal history communicates information about a person's general orientation and social connection to others. Not recalling personal experiences

with others may be experienced as disinterest, or a lack of social openness. Furthermore, in the context that having good autobiographical recall is perceived as desirable and normative, judgements of a target with poor recall may be more extreme or negative.

In order to better test the specificity of this association, a number of changes were made in Study 5 to address certain methodological limitations in Studies 2 through 4. In particular, Studies 2 to 4 used only very simple targets to assess people's impressions of others with good or poor autobiographical memory. In Study 5, significantly more information was provided about the target, including more socially relevant information such as the target's social activities, personal qualities, relationships with others, hobbies, interests and occupational status. In particular, social trait terms were provided in the description of the target, as were specific examples of her social behaviour with others, i.e., her interaction with friends and family and her personal style of relating. As such, in contrast with targets used in Studies 3 and 4, information about the targets' autobiographical recall was not the only socially related information included. Information other than intellectual descriptors of the target were included.

The rationale for incorporating a wide range of social information about the targets was to make participants explicitly aware that the target person is sociable in the sense of frequency of social interaction and ease of interaction. One would then not expect to find significant differences between good and poor ABM targets on ratings of terms reflecting general sociability. Nevertheless, if the ABM information still influences perceptions of targets' underlying connectedness or attachment to others, one can expect differences in

participants' perceptions of ABM targets in terms of degree of warmth or coldness. That is, if the effect is still found on the central qualities of warmth and coldness, it would provide clear support for the specificity of perceived differences in targets with good or poor ABM. It would also support the weight that information about a target's autobiographical memory ability carries in terms of people's impressions relative to the other personality traits or descriptive information provided. It was also expected that the use of more complex stimuli might affect the impressions that people form of others such that the impressions will be more nuanced. Furthermore, the social information provided regarding the targets might serve to limit whatever influence perceptions of warmth or coldness may tend to have on participants' ratings of the targets on non-central sociability terms such as friendliness or unpopular. Finally, a broader range of trait terms was included in the dependent measures in Study 5 to explore more comprehensively people's impressions of good and poor autobiographical memory targets on qualities other than sociability and intellectual competence. This served to provide a more stringent examination of the specificity of the link in social perception between ABM ability and degree of warmth.

Hypotheses. The main prediction of this study is that poor relative to good autobiographical memory targets would be rated as significantly colder. In light of the additional social information provided, differences on other trait terms reflecting sociability were not expected. No differences were predicted for any of the remaining trait terms reflecting, for example, intellectual competence and other non-social domains.

Method

Participants. Participants were recruited as in Study 1a. As part of the recruitment package, participants could complete a form permitting future contact for participation in laboratory studies. From the pool of participants obtained through this recruitment procedure, participants were selected, contacted by telephone and asked to participate in this study. Respondents were selected on the basis of being female, speaking English as their first language and not being enrolled in Psychology. Given that no evidence for gender differences was found in participants' perceptions of memory targets in the previous studies and due to participant availability, men were not included in this study. In total, 59 individuals (29 in the poor ABM condition and 30 in the good ABM condition) between the ages of 18 and 28 years participated ($M=21.6$).

Materials. Each participant was provided with a female target individual. Since no evidence for a significant sex of participant by sex of target interaction was found in earlier studies, only a female target was used. The target was described in terms of her interests and hobbies, personality features, outstanding personal characteristics, academic interests and career plans (see Appendix H for complete target description). Socially relevant information such as how the target relates to others, how her family and friends describe her, and her positive and negative qualities was included. Across participants, targets were matched on all information except the autobiographical recall information. The autobiographical information provided for the target was either having "very good memory for events and experiences in her past" or "very poor memory for events and

experiences in her past.” The information about autobiographical memory was provided under the heading of outstanding personal characteristics, along with other descriptive information. Participants rated the target in terms of the following 33 trait terms: angry, anxious, bored, calm, cold, competent, confident, confused, considerate, decisive, friendly, happy, honest, hypocritical, inefficient, intelligent, irritable, lazy, likable, lonely, manipulative, mature, moody, relaxed, reliable, resourceful, responsible, selfish, sensitive to the needs of others, sociable, thoughtful, trustworthy, and well adjusted (see Appendix I for questionnaire). As such, various trait terms (e.g., likable, friendly) reflecting sociability were also included. Although no significant differences were expected in the intellectual domain, terms reflecting intellectual competence (e.g., intelligent, inefficient) were also provided. Finally, terms reflecting other evaluative dimensions such as emotionality (e.g., moody, anxious) and adjustment (e.g., confident, mature) were also included. Most of these additional terms had been generated by participants in Study 2. Participants in Study 5 indicated their responses to each trait term on a 7-point scale with endpoints labelled not at all (1) and extremely (7). Given that this study was conducted in the laboratory unlike the previous studies, the rating scale was changed from a 5-point to a 7-point scale to allow for a greater range in participant ratings of targets on the trait terms provided. Trait terms were presented in one of three random orders.

Procedure. There were 2-3 participants at each experimental session. Participants were informed that the study concerned the types of impressions that people form of others when provided with limited information (see Appendix J for introduction

described to participants). The experimenter read the instructions. The procedure was described and participants were then invited to sign a consent form.

Participants were provided the description of the target. The experimenter left the room and allowed participants approximately 3 minutes to form an impression. Next, participants were provided with the rating questionnaire. Participants could not consult the target description while completing the questionnaire. Upon completion of the study, participants were debriefed (see Appendix K for debriefing script), remunerated (\$5) and thanked for their participation.

Results

One case was identified as a univariate outlier due to its high Z score on the trait term “lazy.” This outlier was adjusted to the mean plus three standard deviations. Using Mahalanobis distance with $p < .001$ (Tabachnick and Fidell, 1996), no multivariate outliers were identified. Tests for normality identified moderate positive skew on a single variable (lazy). Skew was corrected by applying a square root transformation to this variable. The assumption of homogeneity of variance for all analyses was met.

The hypothesis of this study was that poor relative to good ABM targets would be rated by subjects as significantly colder. As predicted, a t-test on ratings for the trait term cold revealed that poor ($M=3.03$, $SD=1.48$) relative to good ABM ($M=2.23$, $SD=1.46$) targets were rated as significantly colder by participants, $t(1,57)=4.41$, $p=.040$. Multiple independent t-tests were performed on subjects’ ratings of good and poor ABM

targets on the remaining 32 trait terms. No other significant differences emerged with or without Bonferonni corrections ($p > .05$) (see Table 9).

Discussion

As expected, participants in Study 5 rated poor relative to good memory targets significantly higher on the cold trait term, supporting the specificity of people's perceptions of others as a function of the others' autobiographical memory ability. The results of this study also indicate that even with the use of more complex social stimuli that involve inclusion of additional social information, the information about a person's autobiographical memory ability continues to influence people's perception of others in a specific way. It appears that having poor relative to good memory for personal experiences and events communicates information about a person's social orientation in terms of their coldness or warmth. This finding is consistent with the results of Studies 3 and 4 in which good and poor ABM targets differed most significantly on the trait terms warm and cold among the high and low sociability trait terms included, respectively. Consistent with one of the main principles guiding impression formation, the perceiver attempts to identify the dispositional core of the other's personality. In this case, perceptions related to warmth and coldness may reflect the assumed dispositional core that participants perceive for targets described with good or poor autobiographical memory. In addition, the results of Study 5 further undercut a halo bias interpretation of differences in people's perceptions of good and poor autobiographical memory targets

Table 9

Mean Ratings of Autobiographical Memory Targets on the TraitTerms in Study 5

| Dependent Variable | Good ABM | | | Poor ABM | | |
|----------------------------------|----------|------|----|----------|------|----|
| | M | SD | n | M | SD | n |
| Reliable | 3.03 | 1.35 | 30 | 2.75 | 1.43 | 29 |
| Competent | 4.63 | 1.54 | 30 | 4.79 | 1.40 | 29 |
| Hypocritical | 2.73 | 1.31 | 30 | 2.62 | 1.18 | 29 |
| Likeable | 3.13 | 1.55 | 30 | 3.51 | 1.43 | 29 |
| Well adjusted | 3.3 | 1.49 | 30 | 3.65 | 1.65 | 29 |
| Confident | 2.46 | 1.40 | 30 | 2.38 | 1.50 | 29 |
| Moody | 3.77 | 1.87 | 30 | 3.41 | 1.76 | 29 |
| Irritable | 3.00 | 1.83 | 30 | 3.06 | 1.60 | 29 |
| Intelligent | 4.06 | 1.68 | 30 | 3.89 | 1.52 | 29 |
| Sociable | 4.53 | 1.81 | 30 | 4.24 | 1.86 | 29 |
| Lazy | 2.53 | 1.10 | 30 | 2.02 | 1.10 | 29 |
| Calm | 2.93 | 1.70 | 30 | 3.03 | 1.68 | 29 |
| Angry | 3.23 | 1.25 | 30 | 2.79 | 1.72 | 29 |
| Trustworthy | 3.23 | 1.69 | 30 | 3.37 | 1.60 | 29 |
| Anxious | 4.36 | 1.92 | 30 | 4.37 | 2.00 | 29 |
| Manipulative | 2.6 | 1.8 | 30 | 2.58 | 1.40 | 29 |
| Considerate | 3.67 | 1.85 | 30 | 3.24 | 1.60 | 29 |
| Selfish | 3.93 | 1.66 | 30 | 3.86 | 1.68 | 29 |
| Responsible | 4.43 | 1.36 | 30 | 4.03 | 1.58 | 29 |
| Bored | 3.13 | 1.70 | 30 | 3.17 | 1.95 | 29 |
| Sensitive to the needs of others | 4.30 | 1.93 | 30 | 4.10 | 2.13 | 29 |

(Table 9 continues)

(Table 9 continued)

| Dependent Variable | Good ABM | | | Poor ABM | | |
|--------------------|----------|------|----|----------|------|----|
| | M | SD | n | M | SD | n |
| Mature | 3.30 | 1.82 | 30 | 3.45 | 1.94 | 29 |
| Inefficient | 3.03 | 1.81 | 30 | 3.62 | 1.74 | 29 |
| Friendly | 3.73 | 1.72 | 30 | 4.17 | 1.54 | 29 |
| Cold | 2.23* | 1.45 | 30 | 3.03* | 1.48 | 29 |
| Honest | 3.47 | 1.61 | 30 | 3.72 | 1.56 | 29 |
| Happy | 4.70 | 1.69 | 30 | 4.41 | 1.82 | 29 |
| Lonely | 2.90 | 1.71 | 30 | 3.00 | 1.75 | 29 |
| Resourceful | 3.5 | 1.79 | 30 | 3.45 | 1.70 | 29 |
| Decisive | 3.53 | 1.52 | 30 | 3.44 | 1.70 | 29 |
| Thoughtful | 3.6 | 1.52 | 30 | 8.90 | 1.37 | 29 |
| Relaxed | 4.87 | 1.61 | 30 | 4.45 | 1.53 | 29 |
| Confident | 3.73 | 1.55 | 30 | 3.62 | 1.84 | 29 |

Note. ABM = Autobiographical memory.

* $p < .05$.

since other than the results for cold, no significant differences in participants' ratings on any of the intellectual, social, emotional or adjustment-related terms were found. These results are striking and thus require replication.

It is noteworthy that with the presence of more complex information provided concerning the targets, differences did not emerge on other social terms as in previous studies. The reasons for this result remain unclear. Participants in this study were given more time to consider and form their impressions relative to Studies 3 and 4, suggesting that their ratings on the term cold in these studies were not due to contextual constraints of having to make a quick impression under time pressure using very limited information.

Study 6

Study 6 was a conceptual replication of Study 5. To verify the specificity of the results to the warm-cold social dimension, participants in Study 6 rated good or poor memory targets on both the warm and cold trait terms as well as other adjectives found to be significant in differentiating between good and poor ABM targets in previous studies. The aim was to further address the specificity of the warm-cold effect to determine whether the earlier results of Study 5 could be due to the impact of ABM on perceptions of warmth or coldness. As warm and cold are central traits, perceiving another as warm or cold could have affected participants' perceptions in terms of other characteristics. The mediational analyses conducted in Study 4 suggested that this was the case in that study for some trait terms. Additionally, slight modifications were made to the

description of the target used in Study 5 to further highlight her social characteristics.

Hypotheses. We expected that good and poor memory targets would be rated significantly differently on the specific warm-cold trait terms with good ABM targets being rated as significantly warmer and poor ABM targets as significantly colder relative to each other. No significant differences were expected on the other social trait terms.

Method

Participants. The method of participant recruitment was identical to the one used in Study 5. A total of 20 women, ranging from 19 to 27 years of age ($M=21.8$) participated in this study. There were 10 participants in each of the two ABM conditions.

Materials and Procedure. The procedure and experimental design used in Study 6 were identical to those used in Study 5. Only minor modifications were made to the targets of Study 6 (see Appendix L for target stimuli). Participants rated targets in terms of the following traits: cooperative, friendly, kind, and warm (high sociability traits) and cold, unpopular, unsympathetic, and unsociable (low sociability traits) (see Appendix M for questionnaire). Most of the terms selected for this study, namely cooperative, friendly, kind, unpopular, unsympathetic and unsociable were found to differentiate between good and poor memory targets in previous studies and thus were included for replication purposes in a lab setting and with the use of more elaborate stimuli. Participants indicated their responses to each trait term on a 7-point scale with endpoints labelled not at all (1) and extremely (7). Participants could not consult the target description while completing the questionnaire. Trait terms were presented in one of three random orders.

Results

No univariate or multivariate outliers were found. Assumptions of normality and homogeneity of variance were met. The hypothesis of this study was that good relative to poor ABM targets would be rated by subjects as significantly warmer. Similarly, it was expected that poor relative to good ABM targets would be rated as significantly colder. A one-way between-subjects MANOVA was conducted on the eight trait terms with memory ability as the between-subjects factor. The main effect was not significant ($F < 1$). As expected, good ($M = 5.10$, $SD = .568$) relative to poor ABM ($M = 4.20$, $SD = 1.2$) targets were perceived by participants to be significantly warmer ($F(1,17) = 4.29$, $p = .027$, one-tailed). Contrary to expectation, however, no significant difference was found in participants' ratings of good and poor ABM targets on the trait term "cold" ($F < 1$). No other significant differences on the remaining trait terms were found, ($ps < .05$) (see Table 10).

Discussion

The findings for Study 6 were as expected with good and poor memory targets being perceived significantly differently by participants on the warm central evaluative trait term. As predicted, targets with good autobiographical recall were rated as significantly warmer relative to targets with poor autobiographical recall. Contrary to expectation, however, no significant difference was found in participants' ratings of good and poor memory targets on the cold trait term. Furthermore, as in Study 5, participants did not differentiate in their ratings of targets on any of the other social

Table 10

Mean Ratings of Autobiographical Memory Targets on the Trait
Terms in Study 6

| Dependent Variable | Good ABM | | | Poor ABM | | |
|--------------------|----------|-----------|----------|----------|-----------|----------|
| | <u>M</u> | <u>SD</u> | <u>n</u> | <u>M</u> | <u>SD</u> | <u>n</u> |
| Warm | 5.1* | 0.56 | 10 | 4.2* | 1.2 | 9 |
| Friendly | 5.2 | 1.14 | 10 | 5.0 | 0.71 | 9 |
| Cold | 1.6 | 0.51 | 10 | 2.0 | 0.86 | 9 |
| Unpopular | 1.3 | 0.68 | 10 | 1.9 | 1.05 | 9 |
| Unsympathetic | 1.6 | 0.84 | 10 | 1.8 | 0.97 | 9 |
| Unsociable | 1.8 | 1.03 | 10 | 2.00 | 0.71 | 9 |
| Cooperative | 4.5 | 1.27 | 10 | 4.33 | 1.58 | 9 |
| Kind | 5.0 | 0.47 | 10 | 5.0 | 0.87 | 9 |

Note. ABM= Autobiographical memory.

* $p < .05$.

adjectives. It is also interesting to note that while participants were generally willing to provide high ratings of targets on the positive trait terms included, the ratings on the negative trait terms were generally low. It is possible that as in Study 4, warm may be acting as a mediator and thus may be influencing participants ratings on these other negative trait terms particularly for the good ABM target.

It is not evident why differences were not found on both the warm and cold terms in this study given the general trend that both of these terms differentiated the most between good and poor ABM targets in a number of the previous studies. It could be attributed to the inherently inconsistent nature of research in which it is only with multiple studies and replication that trends can be identified. To that end, in relating the findings of this study with the previous studies, the consistency in the results lies in that having good or poor ABM does relate clearly to perceptions of sociability. In addition, although results could not be exactly replicated from study to study on the warm/cold trait terms, these terms do appear to most clearly differentiate between people's perceptions of targets with good or poor ABM. As the results of Study 4 supported, warm may be having a mediating effect on participants' responses on the other trait terms.

General Discussion

Main findings. The core finding of the present research is that individuals with good memory for personal events and experiences are perceived to be significantly warmer relative to individuals described with poor autobiographical memory. While the overall findings of the studies indicated that perceptions of targets varying on autobiographical memory were strongly linked to the social domain, as demonstrated in Studies 2, 3, and 4, participants differentiated between good and poor ABM targets specifically on the terms warm and cold, which are identified as central traits by Asch's (1946) work. Perceptions of warmth and coldness for good and poor ABM targets, respectively, were observed even when a complex social description was provided regarding target individuals. The use of more elaborate stimuli which highlighted the social characteristics of the target did not lead participants to perceive good relative to poor ABM targets as globally more sociable. In both Studies 5 and 6, participants did not differentiate in their ratings of good and poor ABM targets on any of the other social adjectives that were found to be significant in previous studies. Instead, the specificity of the relation of good ABM and perceptions of warmth and poor ABM and perceptions of coldness was confirmed. In further support, in Study 3, ratings of poor autobiographical memory relative to good autobiographical memory targets were significantly higher on the central trait term "cold" among the low sociability terms. In Study 4, participants differentiated most strongly between good and poor ABM targets in their ratings on "warm".

Despite a generally consistent pattern of results across studies, some inconsistencies in the general findings should be noted. For example, in Study 2 the relation between perceptions of sociability and having good autobiographical memory was as not clearly supported as hypothesized. Descriptions relating to social competence were not significantly greater for good relative to poor ABM targets. Only in the social incompetence domain were the expected results found with significantly more terms being generated for poor relative to good ABM targets. In addition, in Study 6, poor ABM targets were not rated as significantly colder relative to good ABM as hypothesized. Finally, the mediating role of cold following Study 4 was also not supported.

Overall, however, the most consistent result across studies remains that having good ABM is strongly tied to perceptions of sociability and/or warmth. Analyses in Study 4 did support the view that it is perceptions of warmth which mediate the more global sociability results. Based on this finding, it appears that participants develop an impression of good ABM targets as warm, which then influences their ratings of the target on the other sociability trait terms that revealed significant differences in ratings as a function of ABM targets. These results are consistent with warm being viewed as a central evaluative term given that it seems to carry significant weight when forming impressions of good and poor ABM targets. When forming impressions of others, warm and cold may also have been identified by participants as core dispositional descriptors of targets with good and poor autobiographical memory. As discussed previously in the review of the impression formation literature, one of the main principles guiding

impression formation is the tendency for perceivers to attempt to identify the dispositional core of others' personality (Hamilton & Sherman, 1996). Furthermore, perceivers also tend to develop organized impressions of a target person. In this case, participants may have organized their perceptions of good and poor ABM targets around the warm/cold traits. The mediating role of cold, however, was not found for reasons that remain unclear. Nevertheless, it was one of the terms that best differentiated between good and poor ABM targets in Study 3.

The specific link between perceptions of warmth or coldness and having good or poor autobiographical memory, respectively, was strengthened by a number of other important findings. The results of Studies 1a and 1b demonstrated that when participants are explicitly asked, having good autobiographical memory is perceived to be normative both descriptively and prescriptively. In this context, having poor autobiographical memory would be perceived as unusual and may be judged harshly. While having good autobiographical memory was perceived to be normative, participants endorsed the view that people vary in their capacity to recall their personal history. For important personal events, however, it is generally expected that people are capable of recall if effort is applied.

Differences in perceptions of ABM and task-related memory. It was also demonstrated that perceptions of good and poor autobiographical memory targets generally differed from perceptions of task-related memory targets. When explicitly asked, respondents generally endorsed that autobiographical memory is distinct from

memory for factual information. Moreover, the results of Study 2 supported the view that people distinguish between autobiographical memory and task-related memory targets in terms of their perceptions of targets. Using an open-ended, unstructured format, phrases and descriptions elicited from participants that best described targets with either good or poor ABM, or good or poor CMM revealed that the intellectual and social descriptors best differentiated between people's perceptions of others as a function of these two memory types. As hypothesized, the link between perceptions of intellectual competence and memory for task-related information on the one hand, and perceptions of sociability and autobiographical memory on the other hand was supported.

Consistent with Erber's (1989) research linking perceptions of others' intellectual competence with others' memory for factual material, results of Study 2 indicated that significantly more descriptions related to intellectual ability were generated for memory for factual information targets relative to ABM targets. Some support was also found in Study 2 for the association of poor ABM with low sociability descriptions. Generally in Study 2, the predicted effect was stronger for CMM targets in the intellectual domain than for ABM targets in the social domain.

Nevertheless, with the addition of more structure to the task of developing impressions and the inclusion of more information about targets, Study 3 replicated and extended the findings of Study 2. Specifically, much stronger support for the distinction in perceptions of ABM and CMM targets in the social and intellectual domains,

respectively, was found. As predicted, good relative to poor autobiographical memory targets were perceived as significantly more sociable. People's perceptions of targets with good or poor memory for course material were linked specifically to the intellectual domain and not to the social domain. Targets with good relative to poor memory for course material were perceived to be significantly more intellectually competent. As in Study 2, good autobiographical memory targets continued to be perceived as significantly more intellectually competent relative to poor autobiographical memory targets. This finding, however, was weaker when compared to the ratings for good relative to poor course material targets on this index.

Finally, in both Studies 5 and 6, no differences were found in participants' ratings on the other social terms as replicated in the previous studies. It may be that under certain conditions, perceptions of sociability and unsociability better organize participants' impressions of good and poor ABM targets as in Studies 2, 3, and 4. Under other conditions, as in Studies 5 and 6, where the target information is more complex and additional social information is included, it may not be as useful to organize impressions of targets in terms of general sociability. Rather, the prevailing organizing structure of the impression under these conditions may become more specific in the form of warmth and coldness. Within the sociability domain, it may be that a more precise articulation of different subgroups of trait terms may be lacking. For example, traits such as warm and caring may be qualitatively different than traits such as lively and outgoing. Thus, the conceptual meaning of traits such as warm and cold may be different and may

represent a subcategory of terms within the sociability domain. It could be further speculated that central traits such as warm and cold may be those terms that describe a sense of connection or attachment to others.

Interpretation of Principal Findings. Taken together, the results of Studies 1a through 6 attest to the importance people place on having good memory for personal events and experiences. Having access to memories for one's personal events and experiences is perceived to be socially desirable and communicates information about the underlying social style of an individual. While personal events and experiences are not necessarily explicitly social in nature, individuals clearly function in a social world. As such, these memories may adopt a certain social significance given that others are often present or involved in the remembered events or experiences. As prior theorizing on autobiographical memory highlights, the capacity to access one's self history communicates information to others about oneself and seemingly one's interest or willingness to engage with others. Having good autobiographical memory may reflect a person's attachment or connection to the past. Moreover, individuals with good autobiographical memory may be perceived as valuing the personal significance of life events both past and present. These memories may be viewed as important to retain because they play a role in defining a person's identity and relatedly, their relationships and shared experiences with others. As discussed previously, the recall of autobiographical memories is usually considered a social act (Hirst & Manier, 1996) that can define a social group (Bruner & Feldman, 1996). Being able to participate in joint

recollection of events and experiences shared with others can be experienced as a means of strengthening and renewing bonds. Not having access to these memories may influence the quality of social interaction or at least suggest to others a degree of detachment or coldness. Having poor autobiographical memory may be perceived as a lack of interest in past events and their significance.

Limitations and Suggestions for Future Research. Using an impression formation paradigm to understand people's perceptions of what it means to have good or poor autobiographical memory poses particular challenges. The generality of the present findings may be limited to a university student population. One might question whether as a group, they are more sophisticated in their understanding of the functioning of memory relative to the general population. Relatedly, it is possible that young adults (most participants in these studies seem to be young) may not appreciate autobiographical memory as much, or in the same way, as older adults do. Nevertheless, it is unclear whether this more sophisticated understanding would affect their perceptions of autobiographical memory targets in any particular way.

In addition, the procedures employed to understand people's beliefs about autobiographical memory are clearly different from the everyday situation in which the concrete actions of a person are followed. The current research focused on impressions based on abbreviated descriptions of personal qualities. While this procedure has merit for purposes of investigation and for observing differences in impressions, ultimately one would hope to show that the current findings are relevant to judgement in more natural

settings as well. Thus, the present research established that the ability to recall one's past personal history is both valued and expected and also highlighted its relevance to perceptions of others in terms of their warmth specifically, and sociability in general. Future research should aim to more closely approximate real-life situations to investigate the impact of having good or poor autobiographical memory on social interaction. For example, an experimental study in which participants are asked to interact with one another while manipulating one of the participant's demonstration of good or poor autobiographical recall might allow for an assessment of whether perceptions of warmth or coldness persist and its possible impact on actual interaction or behaviour.

Additionally, the current research consistently involved use of the description "memory for personal events and experiences" to define autobiographical memory for participants. While consistent with the definition in the literature, future research could include concrete behavioural instantiations or descriptions of individuals demonstrating good or poor autobiographical memory in order to replicate and perhaps extend the present findings.

It might have also been useful to ask participants to report, as part of certain studies, what they recalled from the target descriptions which contributed to their impressions and to their subsequent responses on the questionnaires, particularly when more complex target information was provided. For example, information about which aspects of the description weighed more heavily in their minds might have provided more insight into the role of the autobiographical information in relation to the other

information provided in the development of their impressions. It would provide an opportunity to see how explicitly aware participants are of the information they may focus on and the process they engage in and when forming impressions of targets.

While a clear trend was identified in the results of the current series of studies, replication of the more specific warm/cold finding with the use of different targets would add strength to the conclusions drawn from the present research. Determining the conditions, if any, in which warm/cold act as the prevailing organizing structure of people's impressions of good and poor ABM targets would be interesting to explore. Relatedly, research focusing on the process of how these particular impressions were developed by participants for targets described with good or poor autobiographical memory would be of interest.

Contributions and Implications. The results of the current research may reflect some of the underlying assumptions that people have about the nature of memory and recall in general. While the literature on autobiographical memory notes the social significance and functions of autobiographical memory, prior research has not investigated lay people's perceptions of this type of memory. It is now evident that people hold specific assumptions and beliefs about the nature and importance of autobiographical memory. As the results of Study 1a demonstrated, participants endorsed the belief that while autobiographical recall can be limited, remembering important personal events can still be accessed if the rememberer applies sufficient effort. Even among psychologists, the belief that experiences are recorded permanently in the brain and that forgetting is due

to access failure is common (Legault, 1996; Loftus & Loftus, 1980). While participants in Study 1a did not explicitly endorse this view, implicitly, their responses indicated that they believed that for important events remembering should still be possible. Additionally, having good autobiographical recall was perceived as normative, which implies that forgetting should not commonly occur.

Attributions about recall failure. The interpretation of the results of the present studies could be criticized on the grounds that I am simply testing people's impressions about a willingness to disclose and not about having good or poor autobiographical recall. However, participants are told explicitly that targets have poor or very poor memory for personal events and experiences for their past. They are not told, for example, that targets' poor recall is due to a lack of effort. Rather, they are told that targets either have or do not have the ability to recall their past personal events and experiences. Thus, an explanation for poor or good recall is clearly provided, yet does not alter their negative perceptions of poor autobiographical memory targets. In addition, in Study 2, participants did not seem to associate particular causes such as unwillingness to disclose under the history/cause category when asked to generate words or phrases associated with having good or poor autobiographical memory. More common examples of causal explanations generated in response to targets with poor autobiographical memory in particular included bad childhood, Alzheimer's, amnesia, brain injury, drug-use, repression, trauma, and being elderly to name a few.

The Adaptive Functions of Forgetting. Consistently throughout Studies 1a through

6, having good autobiographical recall was perceived as a positive, valued or a socially desirable quality. The implications of this belief need to be considered more fully. This assumption implies that much of what people experience is expected to be recalled. This perspective is consistent with the common view among researchers that forgetting is a central weakness of the memory system (Bjork & Bjork, 1988). There is little acknowledgement, however, of the adaptive functions of forgetting which might be desirable or necessary under particular circumstances (Tait & Silver, 1989). Bjork and Bjork (1988), for example, support the view that retrieval failure is adaptive in autobiographical memory. While this process is often labelled as negative, they argue that it serves adaptive functions as well. Specifically, these researchers propose that people need a means of putting aside information that is out of date or that is no longer useful. They argue that the information individuals retain is most relevant to their current concerns, interests, and goals. Schacter (1999) also postulates that errors of memory such as bias in recall or forgetting should be viewed as by-products of otherwise adaptive features of memory. He discussed the possible negative consequences of being able to recall all of the precise, specific details of our daily experiences. In addition, he highlighted the possible positive function of forgetting or memory distortion. Ross and Wilson (as cited in Schacter, 1999), for example, have argued that distortions in the recall of the past can often serve to improve a person's appraisal of their current self.

It is also important to consider that there may be very negative consequences to the self if one can remember most events and experiences, particularly if they are negative

in content. Recall of traumatic events is associated with feelings of anxiety and depression for the rememberer (Nolen-Hoeksema, 1990). In research examining rumination and regret, it was shown that individuals who dwell on current and past events related to a current negative mood state, ruminate about alternative scenarios of what might have been (e.g., Gilovich & Medvec, 1995). In fact, a strategy of forgetting or minimizing negative autobiographical memories has been demonstrated to be beneficial to the self (Thompson, 1998). Thompson provided evidence that over time individuals try to minimize the impact of negative life events through forgetting. To maintain a generally positive self-concept, people often need to discount or reevaluate negative or unpleasant events.

Similarly, there may be interpersonal consequences to having worse or better autobiographical memory. For example, when relating to others, excessive focus on negative experiences of the past might inhibit the integration of new positive experiences occurring in the present. One advantage of poor recall is that individuals who do not recall all of the details of past events in the context of a relationship may be more open to change in their relationships with others. Poor recall could imply less anchoring by the past (cf. McFarland & Ross, 1987). Forgetting negative events may also be employed to improve one's image in the eyes of others. Interestingly, participants in Thompson's (1998) study disclosed that there are often strong social pressures to deemphasize negative events and focus on positive events. In addition, ruminating about negative life

memories without developing problem-solving strategies may not be adaptive in certain contexts (Nolen-Hoeksema, 1993).

Understanding Warm/Cold as Central Trait Terms. As noted earlier, the fact that differences in people's perceptions of good and poor autobiographical memory targets were strongest and most reliable on the central trait terms warm/cold may be significant in the context of Asch's (1946) work. Whereas more recent research has not pursued the idea of centrality as Asch conceived it, there has been recognition in most models of impression formation that impressions are based on both perceiver and target determinants. Current research on warm/cold has investigated what accounts for the general influence that warm/cold has on impressions from a target determinant perspective. Thus, understanding the significance of these terms as central warrants further review. As previously described, Asch identified the warm and cold trait terms as central based on his interest in demonstrating how several characteristics function together to produce an impression of a person. Participants were asked to read a list of adjectives that described a person, and then to characterize the person. Some descriptions included the term warm and others the term cold. Results of several studies demonstrated that including the central qualities warm and cold produced a significant change in the impressions people formed. Based on these findings, Asch noted that not all characteristics carry the same weight in establishing an impression of a person. Moreover, the transformation of the other terms was not adequately explained by a halo effect since it did not extend indiscriminately in a positive or negative direction to all characteristics.

A warm person was not seen more favorably on all qualities. Instead, the inclusion of the terms warm or cold in descriptions differentially transformed the other qualities by changing their relative importance in the total impression. Participants confirmed through self-report that warm/cold were of primary importance in forming their impressions. In fact, in one of Asch's studies, when asked to rank terms in the order of their importance for developing their impressions, warm/cold were ranked comparatively high relative to other terms. When asked why warm-cold were significant, however, many participants had difficulties articulating an explanation. Alternatively, peripheral qualities (e.g., polite versus blunt) did not produce effects as strong as those produced by central qualities on people's impressions. While the change of a central trait term can completely alter an impression of a target, the change of a peripheral trait did not produce the same effect.

Based on his results, Asch argued that there are no fixed, specified rules by which terms are deemed central. His research suggested that central qualities can be transformed into peripheral qualities depending on the surrounding trait terms included in a description. In essence, what makes a term central is the functional relationship of its content to the surrounding set of trait terms. Consistent with this interpretation of Asch's results, Rosenberg et al (1968) argued that the central trait terms carried substantial informative weight in his studies because they were extreme on different dimensions as compared to the stimulus traits. Specifically, all of the other trait terms included in Asch's descriptions referred to intelligence whereas warm/cold concerned sociability. Intelligence and sociability are the two dimensions identified in Rosenberg et

al.'s research. In interpreting the results of Studies 3 and 4 of the present research, it could be argued that the information about ABM was distinct from the other descriptors, thus affecting the impressions that people formed of others and perhaps accounting for the warm/cold finding. The results of Studies 5 and 6, however, in which elaborate competing social information was included in target descriptions disconfirms this interpretation of the results. Additionally, other socially-relevant information included in target descriptions did not produce the same effect as the information about a target's autobiographical recall ability. In the impression formation literature, it has also been well established that perceivers try to resolve inconsistencies in the information that they acquire about a target person in order to develop a unified impression of a target (Hamilton & Sherman, 1996). As a result, participants in the current studies likely integrated the intellectual and social information provided about the target person to form a coherent and meaningful overall impression.

Irrespective of warm or cold's status as central trait terms, it is clear that information about a person's autobiographical memory is strongly and reliably related to perceptions of warmth and coldness. The relative consistency of the warm/cold finding across a number of the studies confirms that having good or poor autobiographical memory provides significant social information about others based on a first impression.

The Nature of Memory Recall. While the focus of the present research is on people's perceptions of memory and not on its actual nature, there is some support that people's assumptions about memory are consistent with the way that memory recall

actually works. Much research, for example, has demonstrated that people are more likely to recall information if attention is paid to the information at the time of encoding. In fact, forgetting is more likely to occur when insufficient attention is devoted to the event or experience at the time of its occurrence (e.g., Reason & Mycielska, 1982). In the case of autobiographical memory, the idea of paying attention to an event for the sake of later recall is complicated because this type of memory is generally not intentionally encoded. If one were to accept the view that forgetting is adaptive and that people discard information that is no longer useful or important, when applied to a social context and to autobiographical memory, a reasonable inference about poor recall might be that the memory was not sufficiently important for that person to retain. This argument is consistent with our participants' perceptions of poor autobiographical memory targets as cold.

Individual Differences in Autobiographical Recall and Personality differences.

Given people's perceptions of what it means to have good or poor autobiographical recall, one might speculate whether any personality differences are associated with having good versus poor autobiographical recall. Validity work on a self-report measure of individual differences in autobiographical recall (Conway et al., 1999) found that high scores on the recall measure were positively correlated with the extraversion dimension of the NEO-PI (Costa & McCrae, 1985) and negatively correlated with neuroticism with both correlations being relatively weak ($r=.29$, $p < .001$, $r = -.19$, $p < .01$, respectively). Individuals high on extraversion tend to be characterized as person-oriented, sociable, and

talkative which is consistent with perceptions of good autobiographical memory targets as warm. Nevertheless, whether people's perceptions of good autobiographical memory targets as relatively warm can be attributed to actual differences in personality dimensions would require further investigation, but seems unlikely given the weak correlation.

The Influence of Person Perception on Behaviour. Regardless of their accuracy, beliefs about others' autobiographical memory abilities may be important because, as with other types of beliefs, they might also affect behaviour (Pressley, Borkowski & O'Sullivan, 1984). For example, when examining memory for factual information, memory beliefs about others have been shown to influence people's expectations of others' memory performance and what memory tasks are entrusted to them (Crawford, Herrmann, Holdsworth, Randall, and Robbins, 1989). Further research is required in this area to clarify the influence of memory perceptions on behaviour, particularly with respect to autobiographical memory.

Interestingly, individuals may not even be explicitly aware of many of their assumptions regarding the meaning of having good or poor autobiographical recall. When asked to generate descriptions related to having good or poor autobiographical recall, few participants produced the terms warm or cold which were most strongly and reliably related to people's perceptions of good and poor autobiographical memory targets, respectively. Perhaps this is similar to implicit personality theories which are not explicitly articulated by people, but nevertheless guide their perceptions and judgements of themselves and others. Work by Dweck and her colleagues has shown, for example,

that individuals hold theories of intelligence that relate to self-perceptions and perceptions of others (Levy & Dweck, 1998) and that these theories can be held in any particular attribute domain (Erdley, Cain, Loomis, Dumas-Hines, & Dweck, 1997). Little is known about the theories or assumptions that people hold about memory, particularly autobiographical memory. Individuals may be more aware of the importance of autobiographical memory in the social domain in general, but not specifically of its implications for judgement of warmth and coldness. Nevertheless, there is some indication that individuals may be at least aware of the negative social perceptions associated with having poor autobiographical recall. In the context of conducting research investigating the existence of stable individual differences in autobiographical memory, a number of interesting issues have emerged suggesting that individuals may be aware of the social implications of having good or poor autobiographical recall (Conway et al, 1999). In a series of studies which validated a self-report measure of individual differences in autobiographical memory, participants who differed on their AMS scores were interviewed. This study did not address accuracy in recall but rather assessed the total number of details that individuals recalled about both recent and distant situations and events, social and non-social aspects of their past, and information that could be listed as well as recounted in narrative form. Participants were interviewed over the telephone and provided their consent for the interview to be tape recorded for later coding. In the analysis of these taped conversations, it appeared that participants were motivated to provide the impression that they were capable of autobiographical recall with relative

accuracy and detail. Interviewers noted, for example, that when participants could not recall autobiographical events, they seemed uncomfortable or ill at ease. Anecdotal evidence suggests that participants with poor autobiographical recall may have been using strategies in the interview to compensate for their poor recall such as providing indirectly related material or general comments in responding to the interviewer's questions. These strategies may serve to maintain the social interaction, allowing them to provide some response to queries and perhaps to disguise their poor memory. As well, some of these strategies may also serve as retrieval cues. There is some evidence that individuals attempt to develop compensatory strategies to cope with their inability to remember events. One could even interpret research demonstrating retrospective bias in people's recollections of the past as not only an attempt to achieve consistency between current and past beliefs (Ross et al., 1981), but also as an attempt to disguise from others the inconsistencies and their difficulties with recall. One cannot underestimate the importance of being able to remember events and experiences that constitute not only a good story in a social context, but also that are related to sustaining one's sense of self in relation to others.

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Appendix A

Questionnaire for Study 1a

We are interested in your opinion of people's memory for personal events and experiences. Please circle the number on each scale that best represents your opinion.

1. The average person's memory for personal events and experiences is very good.

| | | | | |
|----------------------|----------|----------|----------|-------------------|
| 1 | 2 | 3 | 4 | 5 |
| Strongly disagree | Disagree | | Agree | Strongly agree |

2. It is a desirable quality to have good memory for one's own personal events and experiences.

| | | | | |
|----------------------|----------|----------|----------|-------------------|
| 1 | 2 | 3 | 4 | 5 |
| Strongly disagree | Disagree | | Agree | Strongly agree |

3. Memory is like a tape recorder. Everything one experiences is permanently recorded in the brain.

| | | | | |
|----------------------|----------|----------|----------|-------------------|
| 1 | 2 | 3 | 4 | 5 |
| Strongly disagree | Disagree | | Agree | Strongly agree |

4. For important personal events, anyone can remember them if they really try.

| | | | | |
|----------------------|----------|----------|----------|-------------------|
| 1 | 2 | 3 | 4 | 5 |
| Strongly disagree | Disagree | | Agree | Strongly agree |

5. If someone has good memory for personal events and experiences, then he/she also has good memory for factual information (e.g. course material, telephone numbers).

| | | | | |
|----------------------|----------|----------|----------|-------------------|
| 1 | 2 | 3 | 4 | 5 |
| Strongly disagree | Disagree | | Agree | Strongly agree |

Appendix B
Questionnaire for Study 1b

We are interested in your opinion of people's memory for personal events and experiences. Please circle the number on each scale that best represents your opinion.

1. Most people have reasonably good memory for personal events and experiences in their past.

| | | | | |
|----------------------|----------|----------|----------|-------------------|
| 1 | 2 | 3 | 4 | 5 |
| Strongly disagree | Disagree | | Agree | Strongly agree |

2. Some people have very poor memory for personal events and experiences in their past.

| | | | | |
|----------------------|----------|----------|----------|-------------------|
| 1 | 2 | 3 | 4 | 5 |
| Strongly disagree | Disagree | | Agree | Strongly agree |

3. Some people have very good memory for personal events and experiences in their past.

| | | | | |
|----------------------|----------|----------|----------|-------------------|
| 1 | 2 | 3 | 4 | 5 |
| Strongly disagree | Disagree | | Agree | Strongly agree |

Appendix C
Target Stimuli for Study 2

Age: _____ Sex: M____ F____

IMPRESSION STUDY

We are interested in the first impressions that people form of another individual when provided with limited information.

Bob has poor memory for personal events and experiences in his past.

What impression do you have of Bob ? We are interested in the words that you think best describe Bob. Please write one word on each of the following lines. Use as many lines as you like.

Age: _____ Sex: M____ F____

IMPRESSION STUDY

We are interested in the first impressions that people form of another individual when provided with limited information.

Bob has good memory for personal events and experiences in his past.

What impression do you have of Bob ? We are interested in the words that you think best describe Bob. Please write one word on each of the following lines. Use as many lines as you like.

Age: _____ Sex: M____ F____

IMPRESSION STUDY

We are interested in the first impressions that people form of another individual when provided with limited information.

Mary has poor memory for personal events and experiences in her past.

What impression do you have of Mary ? We are interested in the words that you think best describe Mary. Please write one word on each of the following lines. Use as many lines as you like.

Age: _____ Sex: M____ F____

IMPRESSION STUDY

We are interested in the first impressions that people form of another individual when provided with limited information.

Mary has good memory for personal events and experiences in her past.

What impression do you have of Mary ? We are interested in the words that you think best describe Mary. Please write one word on each of the following lines. Use as many lines as you like.

Age: _____ Sex: M____ F____

IMPRESSION STUDY

We are interested in the first impressions that people form of another individual when provided with limited information.

Bob has poor memory for course material.

What impression do you have of Bob ? We are interested in the words that you think best describe Bob. Please write one word on each of the following lines. Use as many lines as you like.

Age: _____ Sex: M____ F____

IMPRESSION STUDY

We are interested in the first impressions that people form of another individual when provided with limited information.

Bob has good memory for course material.

What impression do you have of Bob ? We are interested in the words that you think best describe Bob. Please write one word on each of the following lines. Use as many lines as you like.

Age: _____ Sex: M____ F____

IMPRESSION STUDY

We are interested in the first impressions that people form of another individual when provided with limited information.

Mary has poor memory for course material.

What impression do you have of Mary ? We are interested in the words that you think best describe Mary. Please write one word on each of the following lines. Use as many lines as you like.

Age: _____ Sex: M___ F___

IMPRESSION STUDY

We are interested in the first impressions that people form of another individual when provided with limited information.

Mary has good memory for course material.

What impression do you have of Mary ? We are interested in the words that you think best describe Mary. Please write one word on each of the following lines. Use as many lines as you like.

Appendix D

Definition of Categories for Study 2

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Guidelines for Data Coding and Definitions of Categories

1. Global Positive or Global Negative Adjectives (in reference to the target)

These adjectives do not fit into the intellectual or social categories or they fit both categories equally well. They should be evaluative in nature i.e., either have a clear positive or negative connotation. This category also includes emotions.

e.g., Global positive qualities about the target = relaxed, has nice stories, happy

e.g., Global negative qualities = anal, overworked, sad

2. History/Causal Explanation category:

These adjectives or descriptive phrases are clearly expressed as causes for having good or poor autobiographical memory/memory for course material. These adjectives may also explicitly refer to the past (e.g., childhood references)

e.g., trauma, bad childhood, drugie

3. Social category:

Main categories=

(1) Global positive: Social Receptiveness or social competence

These adjectives refer to pro-social qualities - qualities that would enhance a person's sociability or social appeal

e.g., confident, caring

OR

(2) Global negative: Social Incompetence or social unreceptiveness

These adjectives refer to qualities that would discourage social interaction or the social appeal of a person

e.g., boring, insecure

Subcategories: (OPTIONAL)

(1) **Active** - active engagement or pursuit of social interaction

OR e.g., extroverted, helpful

(2) **Passive** - adjectives that refer to withdrawal from social contact

e.g., shy, introverted

4. **Intellectual category:**

Main categories= They refer to core aspects of a person

(1) **Global positive: Intelligence or intellectual competence**

These adjectives refer to intellectual abilities or features that enhance intellectual functioning

e.g., smart, intelligent

OR

(2) **Global negative: lack of intelligence or intellectual incompetence**

These adjectives refer to poor intellectual abilities and qualities that would lead to poor intellectual/academic success

e.g., stupid, slow

Subcategories: (OPTIONAL) More situational in nature...

(1) **Active** - adjectives that refer to motivated activity or attention

OR e.g., motivated, studious, hard working

(2) **Passive** - adjectives that refer to a lack of motivation

e.g., unmotivated, lazy, slacker

Appendix E
Stimuli for Studies 3 and 4

Age: _____ Sex: M____ F____

IMPRESSION STUDY

We are interested in the impressions that people form of another individual when provided with limited information. Please look over the brief description below and form an idea of what this person is like. Once you have formed an impression, please turn over the page and answer the questions.

Brief Description:

Mary is critical of her own work, practical, determined, and has poor memory for personal events and experiences in her past.

=> Please take a moment to form an idea of Mary and answer the questions on the other side of this page.

Age: _____ Sex: M____ F____

IMPRESSION STUDY

We are interested in the impressions that people form of another individual when provided with limited information. Please look over the brief description below and form an idea of what this person is like. Once you have formed an impression, please turn over the page and answer the questions.

Brief Description:

Mary is critical of her own work, practical, determined, and has good memory for personal events and experiences in her past.

=> Please take a moment to form an idea of Mary and answer the questions on the other side of this page.

Age: _____ Sex: M____ F____

IMPRESSION STUDY

We are interested in the impressions that people form of another individual when provided with limited information. Please look over the brief description below and form an idea of what this person is like. Once you have formed an impression, please turn over the page and answer the questions.

Brief Description:

Bob is critical of his own work, practical, determined, and has poor memory for personal events and experiences in his past.

=> Please take a moment to form an idea of Bob and answer the questions on the other side of this page.

Age: _____ Sex: M____ F____

IMPRESSION STUDY

We are interested in the impressions that people form of another individual when provided with limited information. Please look over the brief description below and form an idea of what this person is like. Once you have formed an impression, please turn over the page and answer the questions.

Brief Description:

Bob is critical of his own work, practical, determined, and has good memory for personal events and experiences in his past.

=> Please take a moment to form an idea of Bob and answer the questions on the other side of this page.

Age: _____ Sex: M____ F____

IMPRESSION STUDY

We are interested in the impressions that people form of another individual when provided with limited information. Please look over the brief description below and form an idea of what this person is like. Once you have formed an impression, please turn over the page and answer the questions.

Brief Description:

Mary is critical of her own work, practical, determined, and has poor memory for course material.

=> Please take a moment to form an idea of Mary and answer the questions on the other side of this page.

Age: _____ Sex: M____ F____

IMPRESSION STUDY

We are interested in the impressions that people form of another individual when provided with limited information. Please look over the brief description below and form an idea of what this person is like. Once you have formed an impression, please turn over the page and answer the questions.

Brief Description:

Mary is critical of her own work, practical, determined, and has good memory for course material.

=> Please take a moment to form an idea of Mary and answer the questions on the other side of this page.

Age: _____ Sex: M____ F____

IMPRESSION STUDY

We are interested in the impressions that people form of another individual when provided with limited information. Please look over the brief description below and form an idea of what this person is like. Once you have formed an impression, please turn over the page and answer the questions.

Brief Description:

Bob is critical of his own work, practical, determined, and has poor memory for course material.

=> Please take a moment to form an idea of Bob and answer the questions on the other side of this page.

Age: _____ Sex: M____ F____

IMPRESSION STUDY

We are interested in the impressions that people form of another individual when provided with limited information. Please look over the brief description below and form an idea of what this person is like. Once you have formed an impression, please turn over the page and answer the questions.

Brief Description:

Bob is critical of his own work, practical, determined, and has good memory for course material.

=> Please take a moment to form an idea of Bob and answer the questions on the other side of this page.

Appendix F
Questionnaire for Study 3

Below are listed a number of personality characteristics. Please circle the number on each scale that corresponds to your impression. If you are not sure please make your best guess. Your responses are confidential.

Bob is.....

Friendly

| | | | | |
|------------|----------|----------|-------|------|
| 1 | 2 | 3 | 4 | 5 |
| Not at all | A little | Somewhat | Quite | Very |

Intelligent

| | | | | |
|------------|----------|----------|-------|------|
| 1 | 2 | 3 | 4 | 5 |
| Not at all | A little | Somewhat | Quite | Very |

Unpopular

| | | | | |
|------------|----------|----------|-------|------|
| 1 | 2 | 3 | 4 | 5 |
| Not at all | A little | Somewhat | Quite | Very |

Slow

| | | | | |
|------------|----------|----------|-------|------|
| 1 | 2 | 3 | 4 | 5 |
| Not at all | A little | Somewhat | Quite | Very |

Unsympathetic

| | | | | |
|------------|----------|----------|-------|------|
| 1 | 2 | 3 | 4 | 5 |
| Not at all | A little | Somewhat | Quite | Very |

Bright

| | | | | |
|------------|----------|----------|-------|------|
| 1 | 2 | 3 | 4 | 5 |
| Not at all | A little | Somewhat | Quite | Very |

Outgoing

| | | | | |
|------------|----------|----------|-------|------|
| 1 | 2 | 3 | 4 | 5 |
| Not at all | A little | Somewhat | Quite | Very |

Incompetent

| | | | | |
|------------|----------|----------|-------|------|
| 1 | 2 | 3 | 4 | 5 |
| Not at all | A little | Somewhat | Quite | Very |

Cold

| | | | | |
|------------|----------|----------|-------|------|
| 1 | 2 | 3 | 4 | 5 |
| Not at all | A little | Somewhat | Quite | Very |

Smart

| | | | | |
|------------|----------|----------|-------|------|
| 1 | 2 | 3 | 4 | 5 |
| Not at all | A little | Somewhat | Quite | Very |

Sociable

| | | | | |
|------------|----------|----------|-------|------|
| 1 | 2 | 3 | 4 | 5 |
| Not at all | A little | Somewhat | Quite | Very |

Below are listed a number of personality characteristics. Please circle the number on each scale that corresponds to your impression. If you are not sure please make your best guess. Your responses are confidential.

Mary is.....

Friendly

| | | | | |
|------------|----------|----------|-------|------|
| 1 | 2 | 3 | 4 | 5 |
| Not at all | A little | Somewhat | Quite | Very |

Intelligent

| | | | | |
|------------|----------|----------|-------|------|
| 1 | 2 | 3 | 4 | 5 |
| Not at all | A little | Somewhat | Quite | Very |

Unpopular

| | | | | |
|------------|----------|----------|-------|------|
| 1 | 2 | 3 | 4 | 5 |
| Not at all | A little | Somewhat | Quite | Very |

Slow

| | | | | |
|------------|----------|----------|-------|------|
| 1 | 2 | 3 | 4 | 5 |
| Not at all | A little | Somewhat | Quite | Very |

Unsympathetic

| | | | | |
|------------|----------|----------|-------|------|
| 1 | 2 | 3 | 4 | 5 |
| Not at all | A little | Somewhat | Quite | Very |

Bright

| | | | | |
|------------|----------|----------|-------|------|
| 1 | 2 | 3 | 4 | 5 |
| Not at all | A little | Somewhat | Quite | Very |

Outgoing

| | | | | |
|------------|----------|----------|-------|------|
| 1 | 2 | 3 | 4 | 5 |
| Not at all | A little | Somewhat | Quite | Very |

Incompetent

| | | | | |
|------------|----------|----------|-------|------|
| 1 | 2 | 3 | 4 | 5 |
| Not at all | A little | Somewhat | Quite | Very |

Cold

| | | | | |
|------------|----------|----------|-------|------|
| 1 | 2 | 3 | 4 | 5 |
| Not at all | A little | Somewhat | Quite | Very |

Smart

| | | | | |
|------------|----------|----------|-------|------|
| 1 | 2 | 3 | 4 | 5 |
| Not at all | A little | Somewhat | Quite | Very |

Sociable

| | | | | |
|------------|----------|----------|-------|------|
| 1 | 2 | 3 | 4 | 5 |
| Not at all | A little | Somewhat | Quite | Very |

Appendix G

Questionnaire for Study 4

Below are listed a number of personality characteristics. Please circle the number on each scale that corresponds to your impression. If you are not sure please make your best guess. Your responses are confidential.

Mary is.....

Cooperative

| | | | | |
|------------|----------|----------|-------|------|
| 1 | 2 | 3 | 4 | 5 |
| Not at all | A little | Somewhat | Quite | Very |

Irritable

| | | | | |
|------------|----------|----------|-------|------|
| 1 | 2 | 3 | 4 | 5 |
| Not at all | A little | Somewhat | Quite | Very |

Unsympathetic

| | | | | |
|------------|----------|----------|-------|------|
| 1 | 2 | 3 | 4 | 5 |
| Not at all | A little | Somewhat | Quite | Very |

Kind

| | | | | |
|------------|----------|----------|-------|------|
| 1 | 2 | 3 | 4 | 5 |
| Not at all | A little | Somewhat | Quite | Very |

Friendly

| | | | | |
|------------|----------|----------|-------|------|
| 1 | 2 | 3 | 4 | 5 |
| Not at all | A little | Somewhat | Quite | Very |

Unsociable

| | | | | |
|------------|----------|----------|-------|------|
| 1 | 2 | 3 | 4 | 5 |
| Not at all | A little | Somewhat | Quite | Very |

Warm

| | | | | |
|------------|----------|----------|-------|------|
| 1 | 2 | 3 | 4 | 5 |
| Not at all | A little | Somewhat | Quite | Very |

Unpopular

| | | | | |
|------------|----------|----------|-------|------|
| 1 | 2 | 3 | 4 | 5 |
| Not at all | A little | Somewhat | Quite | Very |

Below are listed a number of personality characteristics. Please circle the number on each scale that corresponds to your impression. If you are not sure please make your best guess. Your responses are confidential.

Bob is.....

Cooperative

| | | | | |
|------------|----------|----------|-------|------|
| 1 | 2 | 3 | 4 | 5 |
| Not at all | A little | Somewhat | Quite | Very |

Irritable

| | | | | |
|------------|----------|----------|-------|------|
| 1 | 2 | 3 | 4 | 5 |
| Not at all | A little | Somewhat | Quite | Very |

Unsympathetic

| | | | | |
|------------|----------|----------|-------|------|
| 1 | 2 | 3 | 4 | 5 |
| Not at all | A little | Somewhat | Quite | Very |

Kind

| | | | | |
|------------|----------|----------|-------|------|
| 1 | 2 | 3 | 4 | 5 |
| Not at all | A little | Somewhat | Quite | Very |

Friendly

| | | | | |
|------------|----------|----------|-------|------|
| 1 | 2 | 3 | 4 | 5 |
| Not at all | A little | Somewhat | Quite | Very |

Unsociable

| | | | | |
|------------|----------|----------|-------|------|
| 1 | 2 | 3 | 4 | 5 |
| Not at all | A little | Somewhat | Quite | Very |

Warm

| | | | | |
|------------|----------|----------|-------|------|
| 1 | 2 | 3 | 4 | 5 |
| Not at all | A little | Somewhat | Quite | Very |

Unpopular

| | | | | |
|------------|----------|----------|-------|------|
| 1 | 2 | 3 | 4 | 5 |
| Not at all | A little | Somewhat | Quite | Very |

Appendix H
Target Stimuli for Study 5

Personal Profile F

Name: Ellen*

Age: 27 years old

Gender: Female

Born: Toronto, Ontario

Relationship Status: engaged,
planning to get married next year

Ellen is 27 years old and is currently working full-time for an advertising agency. She has recently started back at school and is pursuing a B.A. in philosophy on a part-time basis. Ellen is described by her coworkers as someone who enjoys working on different kinds of projects. Though she enjoys her work, it is not the most important thing to her in her life. She admits to needing time to herself quite often.

Ellen is the only child in her family and she visits her parents on a regular basis. They describe her as generous, although often stubborn which is occasionally to her detriment. She owns 2 pets, a dog and a budgie that she adores and lavishes with attention. Though she has many acquaintances, Ellen has few close friends. They describe her as interesting and pleasant. She cycles for pleasure. She also enjoys cooking and invites friends over occasionally.

Career Plans:

- has gone back to school because she's thinking of changing vocations, but is unsure as to what she would want to pursue

Hobbies & Interests:

- enjoys cycling and swimming
- loves to read
- enjoys Chinese cooking

Outstanding Personal Characteristics:

- spontaneous - flexible
- straightforward in expressing her opinions and her likes and dislikes
- independent
- stubborn
- very good memory for experiences and events in her past

* Name has been changed to maintain anonymity

Personal Profile G

Name: Ellen*

Age: 27 years old

Gender: Female

Born: Toronto, Ontario

Relationship Status: engaged,
planning to get married next year

Ellen is 27 years old and is currently working full-time for an advertising agency. She has recently started back at school and is pursuing a B.A. in philosophy on a part-time basis. Ellen is described by her coworkers as someone who enjoys working on different kinds of projects. Though she enjoys her work, it is not the most important thing to her in her life. She admits to needing time to herself quite often.

Ellen is the only child in her family and she visits her parents on a regular basis. They describe her as generous, although often stubborn which is occasionally to her detriment. She owns 2 pets, a dog and a budgie that she adores and lavishes with attention. Though she has many acquaintances, Ellen has few close friends. They describe her as interesting and pleasant. She cycles for pleasure. She also enjoys cooking and invites friends over occasionally.

Career Plans:

- has gone back to school because she's thinking of changing vocations, but is unsure as to what she would want to pursue

Hobbies & Interests:

- enjoys cycling and swimming
- loves to read
- enjoys Chinese cooking

Outstanding Personal Characteristics:

- spontaneous - flexible
- straightforward in expressing her opinions and her likes and dislikes
- independent
- stubborn
- very poor memory for experiences and events in her past

* Name has been changed to maintain anonymity

Appendix I
Questionnaire for Study 5

Now, that you have had a chance to read over Ellen's personality profile, we would like to know what your overall impressions are of her. Below are listed a number of personality characteristics. Please circle the number on each scale provided below that corresponds to your impressions of Ellen. If you are not sure about an answer please make your best guess. Please do not spend too much time on any one item. We are interested in your first impressions.

How reliable do you think Ellen is ?

| | | | | | | |
|------------------------|--------------------------|----------------------|--------|-------------------|------------------|-----------------------|
| 1..... | 2..... | 3..... | 4..... | 5..... | 6..... | 7..... |
| Not at all reliable | A little bit reliable | Somewhat reliable | | Quite reliable | Very reliable | Extremely reliable |

How competent is she ?

| | | | | | | |
|-------------------------|---------------------------|-----------------------|--------|--------------------|-------------------|------------------------|
| 1..... | 2..... | 3..... | 4..... | 5..... | 6..... | 7..... |
| Not at all competent | A little bit competent | Somewhat competent | | Quite competent | Very competent | Extremely competent |

How hypocritical is she ?

| | | | | | | |
|----------------------------|------------------------------|--------------------------|--------|-----------------------|----------------------|---------------------------|
| 1..... | 2..... | 3..... | 4..... | 5..... | 6..... | 7..... |
| Not at all hypocritical | A little bit hypocritical | Somewhat hypocritical | | Quite hypocritical | Very hypocritical | Extremely hypocritical |

How likable is she ?

| | | | | | | |
|-----------------------|-------------------------|---------------------|--------|------------------|-----------------|----------------------|
| 1..... | 2..... | 3..... | 4..... | 5..... | 6..... | 7..... |
| Not at all likable | A little bit likable | Somewhat likable | | Quite likable | Very likable | Extremely likable |

How well adjusted is she ?

| | | | | | | |
|------------------------|--------------------------|----------------------|--------|-------------------|------------------|-----------------------|
| 1..... | 2..... | 3..... | 4..... | 5..... | 6..... | 7..... |
| Not at all adjusted | A little bit adjusted | Somewhat adjusted | | Quite adjusted | Very adjusted | Extremely adjusted |

How confused is she ?

| | | | | | | |
|------------------------|--------------------------|----------------------|--------|-------------------|------------------|-----------------------|
| 1..... | 2..... | 3..... | 4..... | 5..... | 6..... | 7..... |
| Not at all confused | A little bit confused | Somewhat confused | | Quite confused | Very confused | Extremely confused |

How moody is she ?

| | | | | | | |
|---------------------|-----------------------|-------------------|--------|----------------|---------------|--------------------|
| 1..... | 2..... | 3..... | 4..... | 5..... | 6..... | 7..... |
| Not at all moody | A little bit moody | Somewhat moody | | Quite moody | Very moody | Extremely moody |

How irritable is she ?

| | | | | | | |
|-------------------------|---------------------------|-----------------------|--------|--------------------|-------------------|------------------------|
| 1..... | 2..... | 3..... | 4..... | 5..... | 6..... | 7..... |
| Not at all irritable | A little bit irritable | Somewhat irritable | | Quite irritable | Very irritable | Extremely irritable |

How intelligent is she ?

| | | | | | | |
|---------------------------|-----------------------------|-------------------------|--------|----------------------|---------------------|--------------------------|
| 1..... | 2..... | 3..... | 4..... | 5..... | 6..... | 7..... |
| Not at all intelligent | A little bit intelligent | Somewhat intelligent | | Quite intelligent | Very intelligent | Extremely intelligent |

How sociable is she ?

| | | | | | | |
|------------------------|--------------------------|----------------------|--------|-------------------|------------------|-----------------------|
| 1..... | 2..... | 3..... | 4..... | 5..... | 6..... | 7..... |
| Not at all sociable | A little bit sociable | Somewhat sociable | | Quite sociable | Very sociable | Extremely sociable |

How lazy is she ?

| | | | | | | |
|--------------------|----------------------|------------------|--------|---------------|--------------|-------------------|
| 1..... | 2..... | 3..... | 4..... | 5..... | 6..... | 7..... |
| Not at all lazy | A little bit lazy | Somewhat lazy | | Quite lazy | Very lazy | Extremely lazy |

How calm is she ?

| | | | | | | |
|--------------------|----------------------|------------------|--------|---------------|--------------|-------------------|
| 1..... | 2..... | 3..... | 4..... | 5..... | 6..... | 7..... |
| Not at all calm | A little bit calm | Somewhat calm | | Quite calm | Very calm | Extremely calm |

How angry is she ?

| | | | | | | |
|---------------------|-----------------------|-------------------|--------|----------------|---------------|--------------------|
| 1..... | 2..... | 3..... | 4..... | 5..... | 6..... | 7..... |
| Not at all angry | A little bit angry | Somewhat angry | | Quite angry | Very angry | Extremely angry |

How trustworthy is she ?

| | | | | | | |
|---------------------------|-----------------------------|-------------------------|--------|----------------------|---------------------|--------------------------|
| 1..... | 2..... | 3..... | 4..... | 5..... | 6..... | 7..... |
| Not at all trustworthy | A little bit trustworthy | Somewhat trustworthy | | Quite trustworthy | Very trustworthy | Extremely trustworthy |

How anxious is she ?

| | | | | | | |
|-----------------------|-------------------------|---------------------|--------|------------------|-----------------|----------------------|
| 1..... | 2..... | 3..... | 4..... | 5..... | 6..... | 7..... |
| Not at all anxious | A little bit anxious | Somewhat anxious | | Quite anxious | Very anxious | Extremely anxious |

How manipulative is she ?

| | | | | | | |
|----------------------------|------------------------------|--------------------------|--------|-----------------------|----------------------|---------------------------|
| 1..... | 2..... | 3..... | 4..... | 5..... | 6..... | 7..... |
| Not at all manipulative | A little bit manipulative | Somewhat manipulative | | Quite manipulative | Very manipulative | Extremely manipulative |

How considerate is she ?

| | | | | | | |
|---------------------------|-----------------------------|-------------------------|--------|----------------------|---------------------|--------------------------|
| 1..... | 2..... | 3..... | 4..... | 5..... | 6..... | 7..... |
| Not at all considerate | A little bit considerate | Somewhat considerate | | Quite considerate | Very considerate | Extremely considerate |

How selfish is she ?

| | | | | | | |
|-----------------------|-------------------------|---------------------|--------|------------------|-----------------|----------------------|
| 1..... | 2..... | 3..... | 4..... | 5..... | 6..... | 7..... |
| Not at all selfish | A little bit selfish | Somewhat selfish | | Quite selfish | Very selfish | Extremely selfish |

How responsible is she ?

| | | | | | | |
|---------------------------|-----------------------------|-------------------------|--------|----------------------|---------------------|--------------------------|
| 1..... | 2..... | 3..... | 4..... | 5..... | 6..... | 7..... |
| Not at all responsible | A little bit responsible | Somewhat responsible | | Quite responsible | Very responsible | Extremely responsible |

How bored is she ?

| | | | | | | |
|---------------------|-----------------------|-------------------|--------|----------------|---------------|--------------------|
| 1..... | 2..... | 3..... | 4..... | 5..... | 6..... | 7..... |
| Not at all bored | A little bit bored | Somewhat bored | | Quite bored | Very bored | Extremely bored |

How sensitive to the needs of others is she ?

| | | | | | | |
|-------------------------|---------------------------|-----------------------|--------|--------------------|-------------------|------------------------|
| 1..... | 2..... | 3..... | 4..... | 5..... | 6..... | 7..... |
| Not at all sensitive | A little bit sensitive | Somewhat sensitive | | Quite sensitive | Very sensitive | Extremely sensitive |

How mature is she ?

| | | | | | | |
|----------------------|------------------------|--------------------|--------|-----------------|----------------|---------------------|
| 1..... | 2..... | 3..... | 4..... | 5..... | 6..... | 7..... |
| Not at all mature | A little bit mature | Somewhat mature | | Quite mature | Very mature | Extremely mature |

How inefficient is she ?

| | | | | | | |
|---------------------------|-----------------------------|-------------------------|--------|----------------------|---------------------|--------------------------|
| 1..... | 2..... | 3..... | 4..... | 5..... | 6..... | 7..... |
| Not at all inefficient | A little bit inefficient | Somewhat inefficient | | Quite inefficient | Very inefficient | Extremely inefficient |

How friendly is she ?

| | | | | | | |
|------------------------|--------------------------|----------------------|--------|-------------------|------------------|-----------------------|
| 1..... | 2..... | 3..... | 4..... | 5..... | 6..... | 7..... |
| Not at all friendly | A little bit friendly | Somewhat friendly | | Quite friendly | Very friendly | Extremely friendly |

How cold is she ?

| | | | | | | |
|--------------------|----------------------|------------------|--------|---------------|--------------|-------------------|
| 1..... | 2..... | 3..... | 4..... | 5..... | 6..... | 7..... |
| Not at all cold | A little bit cold | Somewhat cold | | Quite cold | Very cold | Extremely cold |

How honest is she ?

| | | | | | | |
|----------------------|------------------------|--------------------|--------|-----------------|----------------|---------------------|
| 1..... | 2..... | 3..... | 4..... | 5..... | 6..... | 7..... |
| Not at all honest | A little bit honest | Somewhat honest | | Quite honest | Very honest | Extremely honest |

How happy is she ?

| | | | | | | |
|---------------------|-----------------------|-------------------|--------|----------------|---------------|--------------------|
| 1..... | 2..... | 3..... | 4..... | 5..... | 6..... | 7..... |
| Not at all happy | A little bit happy | Somewhat happy | | Quite happy | Very happy | Extremely happy |

How lonely is she ?

| | | | | | | |
|----------------------|------------------------|--------------------|--------|-----------------|----------------|---------------------|
| 1..... | 2..... | 3..... | 4..... | 5..... | 6..... | 7..... |
| Not at all lonely | A little bit lonely | Somewhat lonely | | Quite lonely | Very lonely | Extremely lonely |

How resourceful is she ?

| | | | | | | |
|---------------------------|-----------------------------|-------------------------|--------|----------------------|---------------------|--------------------------|
| 1..... | 2..... | 3..... | 4..... | 5..... | 6..... | 7..... |
| Not at all resourceful | A little bit resourceful | Somewhat resourceful | | Quite resourceful | Very resourceful | Extremely resourceful |

How decisive is she ?

| | | | | | | |
|------------------------|--------------------------|----------------------|--------|-------------------|------------------|-----------------------|
| 1..... | 2..... | 3..... | 4..... | 5..... | 6..... | 7..... |
| Not at all decisive | A little bit decisive | Somewhat decisive | | Quite decisive | Very decisive | Extremely decisive |

How thoughtful is she ?

| | | | | | | |
|--------------------------|----------------------------|------------------------|--------|---------------------|--------------------|-------------------------|
| 1..... | 2..... | 3..... | 4..... | 5..... | 6..... | 7..... |
| Not at all thoughtful | A little bit thoughtful | Somewhat thoughtful | | Quite thoughtful | Very thoughtful | Extremely thoughtful |

How relaxed do you think she is ?

| | | | | | | |
|-----------------------|-------------------------|---------------------|--------|------------------|-----------------|----------------------|
| 1..... | 2..... | 3..... | 4..... | 5..... | 6..... | 7..... |
| Not at all relaxed | A little bit relaxed | Somewhat relaxed | | Quite relaxed | Very relaxed | Extremely relaxed |

How confident do you think she is ?

| | | | | | | |
|-------------------------|---------------------------|-----------------------|--------|--------------------|-------------------|------------------------|
| 1..... | 2..... | 3..... | 4..... | 5..... | 6..... | 7..... |
| Not at all confident | A little bit confident | Somewhat confident | | Quite confident | Very confident | Extremely confident |

Appendix J

Introduction Supplied to Participants for Studies 5 and 6

Impression Formation Study Instructions

People deal with each other at work, school and in social settings in many different ways. In many cases, we have limited contact with others but need to form an impression of them. This may be the case because we'd like to determine, for example, whether we'd want to work with others in the future or become their friends. Although in psychology we have some understanding of how people form impressions, there is still a lot that we have to learn. As a result, we would like to gain a better understanding of how people form impressions of others given that it is so much a part of what we do everyday. In this study, we are interested in examining the kinds of impressions that people form of others.

What I'd like you to do is look over a description of an individual that will be provided to you in a folder. This folder will contain a description of an individual, along with their interests and hobbies, career goals and so on. The name of the individual described has been modified to maintain anonymity. Once you have read over the description, I would like you to take the time you need to think about the person and to form an impression of this person or get a sense of what she is like. Next, I will provide you with a questionnaire where you can indicate your impressions of the individual by rating her on a number of personality characteristics.

All of your responses are confidential. We will not be writing your name on any of the questionnaires. They will be identified by ID numbers only. Ready to begin ? Here is the description. Once again, take as much time as you need to read over the description and to form an impression. When you are finished, please come and get me. I will be in the next room.

Appendix K

Debriefing Script for Studies 5 and 6

Debriefing for Impression Formation Study

You have now completed all of the tasks for this study. I would now like to talk to you about the details of this study, and give you the opportunity to ask any questions you may have about your participation today. Do you have any questions right now ?

At the beginning of the study, I told you that we are interested in examining the kinds of impressions that people form of others when provided with limited information. We are interested in your overall impressions but in a very particular way. Our main focus was to see how people perceive others who are described as having either very good or very poor memory for events and experiences in their past. There has been some suggestion that having poor memory is perceived by others negatively and that good memory is perceived more favourably. So for example, Ellen with very poor memory may be perceived as less competent, insensitive and poorly adjusted. In contrast, Ellen with very good memory may be perceived as competent, sensitive and well adjusted. Nevertheless, we are not sure that we will actually find these results. Do you have any comments ?

If you would like us to send you a copy of the results of the study, you can write your name and address on one of these envelopes and I would be happy to mail you a copy.

Now I want to tell you why we didn't just tell you this in the first place. The reason is that, if you knew that we were interested in looking specifically at people's impressions of having good or poor memory, you may have tried to help us out, and this may have affected the results of our experiment. For example, if we were interested in looking at people's non-verbal behaviour and we watched you, you would probably feel very self-conscious and might then behave differently. I also want to tell you that most psychological research is not like this. In most studies, people can be told details of the study beforehand.

Do you have any other questions ? I would really appreciate your comments.

Let me tell you one last thing - that everything that has happened here today is confidential. Also, I want to tell you that it is important that you not tell any other Concordia students about what happened here today for a few months. We will be conducting this study for a while longer, and if people knew about it before they came in, it would cause the same problem that I mentioned to you earlier.

Thank-you very much for participating today. If you have any concerns later on, or more questions, please free to get in touch with Dr. Conway.

Appendix L

Target Stimuli for Study 6

Profile G

Name: Ellen*

Age: 27 years old

Gender: Female

Born: Toronto, Ontario

Relationship Status: engaged

Personal Profile:

Ellen is 27 years old and is currently working full-time for an advertising agency. She has recently started back at school and is pursuing a B.A. in philosophy on a part-time basis. Ellen is described by her coworkers as someone who enjoys working on different kinds of projects. Although she enjoys her work, it is not the most important thing to her in her life. She admits to needing time to herself occasionally.

Ellen is the only child in her family and she visits her parents on a regular basis. They describe her as generous, although often stubborn which is occasionally to her detriment. She owns 2 pets, a dog and a budgie that she enjoys spending time with. Although she has many acquaintances, Ellen has few close friends. She has been described by people who know her as an interesting and pleasant person. She enjoys cycling with her fiancé. She also enjoys cooking and invites friends over.

Career Plans:

- has gone back to school because she's thinking of changing occupation, but is unsure as to what she would want to pursue

Outstanding Personal Characteristics:

- spontaneous - flexible
- straightforward in expressing her opinions and her likes and dislikes
- independent
- stubborn
- very poor memory for experiences and events in her past

* Name has been changed to maintain anonymity

Profile G

Name: Ellen*

Age: 27 years old

Gender: Female

Born: Toronto, Ontario

Relationship Status: engaged

Personal Profile:

Ellen is 27 years old and is currently working full-time for an advertising agency. She has recently started back at school and is pursuing a B.A. in philosophy on a part-time basis. Ellen is described by her coworkers as someone who enjoys working on different kinds of projects. Although she enjoys her work, it is not the most important thing to her in her life. She admits to needing time to herself occasionally.

Ellen is the only child in her family and she visits her parents on a regular basis. They describe her as generous, although often stubborn which is occasionally to her detriment. She owns 2 pets, a dog and a budgie that she enjoys spending time with. Although she has many acquaintances, Ellen has few close friends. She has been described by people who know her as an interesting and pleasant person. She enjoys cycling with her fiancé. She also enjoys cooking and invites friends over.

Career Plans:

- has gone back to school because she's thinking of changing occupation, but is unsure as to what she would want to pursue

Outstanding Personal Characteristics:

- spontaneous - flexible
- straightforward in expressing her opinions and her likes and dislikes
- independent
- stubborn
- very good memory for experiences and events in her past

* Name has been changed to maintain anonymity

Appendix M
Questionnaire for Study 6

Now, that you have had a chance to read over Ellen's personality profile, we would like to know what your overall impressions are of her. Below are listed a number of personality characteristics. Please circle the number on each scale provided below that corresponds to your impressions of Ellen. If you are not sure about an answer please make your best guess. Please do not spend too much time on any one item. We are interested in your first impressions.

IS Ellen....

Unsympathetic ?

| | | | | | | |
|------------|--------------|----------|---|-------|------|-----------|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Not at all | A little bit | Somewhat | | Quite | Very | Extremely |

Cold ?

| | | | | | | |
|------------|--------------|----------|---|-------|------|-----------|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Not at all | A little bit | Somewhat | | Quite | Very | Extremely |

Friendly ?

| | | | | | | |
|------------|--------------|----------|---|-------|------|-----------|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Not at all | A little bit | Somewhat | | Quite | Very | Extremely |

Unsociable ?

| | | | | | | |
|------------|--------------|----------|---|-------|------|-----------|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Not at all | A little bit | Somewhat | | Quite | Very | Extremely |

Unpopular ?

| | | | | | | |
|------------|--------------|----------|---|-------|------|-----------|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Not at all | A little bit | Somewhat | | Quite | Very | Extremely |

Warm ?

| | | | | | | |
|------------|--------------|----------|---|-------|------|-----------|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Not at all | A little bit | Somewhat | | Quite | Very | Extremely |

Kind ?

| | | | | | | |
|------------|--------------|----------|---|-------|------|-----------|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Not at all | A little bit | Somewhat | | Quite | Very | Extremely |

Cooperative ?

| | | | | | | |
|------------|--------------|----------|---|-------|------|-----------|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Not at all | A little bit | Somewhat | | Quite | Very | Extremely |