On the Nature of Implicit Self-Esteem: 
The Case of the Name Letter Effect

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*We don't understand our name at all, and yet we bear it with exalted fidelity, we merge with it, we like it, we are ridiculously proud of it as if we had thought it up ourselves in a moment of brilliant inspiration.*  
— Milan Kundera, *Immortality*

In 1811, Napoleon (whose armies occupied The Netherlands) ruled that all Dutch citizens should have their family names registered. At the time of Napoleon's decree, family names were used only by members of the upper class. Thus, this decidedly unpopular decree forced much of the Dutch populace to invent a name for their families. To express their dissatisfaction with Napoleon's ruling, some families engaged in a very creative form of rebellion. Specifically, they registered themselves under ridiculous family names. To the likely delight of many of these Dutch families, Napoleon met his Waterloo four years after his highly resented decree (in 1815). Nevertheless, by this time, it had become clear that there were some practical benefits to the French system of name registration, and this system survived long after Napoleon perished. Notably, few families went to the trouble to erase their ridiculous family names from the official records. Even when it eventually became very easy for subsequent generations of Dutch citizens to change their family names, many found that they had become quite attached to ridiculous family names. Thus, to this day, a substantial number of Dutch families go through life bearing such dubious surnames as Naaktgeboren, Den Boef, and Poepees (whose respective English translations are "Born Naked", "The Crook", and "Little Poops").
As Kundera eloquently noted, people have a powerful and seemingly inexplicable attachment to their own names. Of course, most everyone knows that names are nothing but arbitrary social labels used to distinguish one person from another. At the same time, however, couples state the perpetuation of their family name as one of the most important reasons for having children (Arnold & Kuo, 1984; Callan & Kee, 1981; Ramu & Tavuchis, 1986), students feel flattered when their professor happens to remember their name (Howard, Gengler, & Jain, 1997), and across many different cultures, the state of namelessness is considered equal to having no honor or identity (Frommer, 1982; Watson, 1986). In fact, anthropologists noted nearly a hundred years ago that there has never been a culture in recorded history that did not assign people first names (Murdock, 1945). Taken together, these diverse findings suggest that people's names have a great deal of psychological significance (Dion, 1983). In a direct test of this idea, researchers have shown that people strongly prefer the letters in their own names to letters that are not in their names (Koole, Dijksterhuis, & van Knippenberg, 2001; Nuttin, 1985, 1987; Pelham, Mirenberg, & Jones, in press). Because there are no obvious pragmatic reasons to overvalue one's own name letters, this so-called name letter effect (Nuttin, 1985, 1987) seems to be grounded in emotional processes. In keeping with this idea, a number of theorists have proposed that enhanced name letter liking is a marker for implicit self-esteem. According to Greenwald and Banaji (1995), for example, name letter preferences are a direct reflection of people's positive unconscious associations about themselves (see also Koole et al., 2001; Pelham et al., in press). According to this argument, positive feelings about the self enhance the value of practically anything that is associated with the self, even arbitrary self-associated symbols such as name letters or birthday numbers. In short, people's fondness for the letters in their own names might be part of their more general tendency to feel good about themselves (Greenwald & Banaji, 1995; Hetts & Pelham, 2001; Koole, Kuhl, & Sedikides, 2000).

During the past decade, a growing body of research has refined and developed the idea that people possess positive unconscious associations about the self (Greenwald & Banaji, 1995; Hetts & Pelham, 2001). A good deal of this research has focused on the name letter effect (Hoorens, 1990; Koole et al., 2001; Pelham et al., in press). In this chapter, our goal is to review the accumulating evidence on the name letter effect with an emphasis on what name letter preferences reveal about implicit self-evaluation. We begin by placing the name letter effect in the context of implicit social cognition and implicit self-evaluation. After this, we argue that name-letter preferences are best understood as indicators of implicit self-esteem. Next, we consider the issue of how name

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1 Actually, this arbitrariness applies to all social symbols, because there usually is no intrinsic relationship between a symbol and what it stands for (Krauss & Fussell, 1996). As such, people's attachment to their own names may be considered an integral aspect of the more general process by which people negotiate a socially shared reality (Hardin & Higgins, 1996).
letter preferences relate to explicit self-evaluations, and whether the name letter effect has any important real-life consequences. Finally, we discuss some of the broader theoretical implications of research on name-letter preferences and summarize some issues that are yet to be resolved. Although the main focus of this chapter is on recent findings regarding the name letter effect, our broader goal is to further our understanding of implicit self-esteem. That is, our fascination with names such as "Born Naked" notwithstanding, we are not interested in names for their own sake. Instead, we are interested in the nature and consequences of implicit self-esteem. As it turns out, we believe that people's abiding affection for their own names can tell us a great deal about people's abiding affection for themselves.

THE STUDY OF THE PSYCHOLOGICAL UNCONSCIOUS: FROM IMPLICIT (SOCIAL) COGNITION TO THE IMPLICIT SELF-CONCEPT

The scientific interest in implicit self-evaluation is closely related to the broader issue of how unconscious processes influence psychological functioning. Theorizing about the unconscious has had a long and controversial history in psychology (Bargh & Ferguson, 2000; Hetts & Pelham, 2001; Westen, 1998). During the first two thirds of the 20th century, empirical psychology was dominated by behaviorism. Most behaviorists (e.g., Skinner, Watson; but cf. Tolman, 1934) argued that mental processes (whether conscious or unconscious) were unobservable, and thus were not proper objects of scientific study. The cognitive revolution subsequently revived psychologists' interest in mental processes, but these revolutionaries focused heavily on conscious rather than unconscious forms of information processing. Early cognitive psychologists believed, for instance, that memories become significant only once they enter working memory (i.e., once they enter consciousness). Consequently, the first generation of cognitive psychologists mostly refrained from theorizing about the unconscious.

In the 1980s, this situation changed dramatically when cognitive psychologists began to investigate implicit memory. Implicit memory refers to memories that cannot be consciously remembered but whose influence can nonetheless be observed indirectly (Greenwald & Banaji, 1995; Roediger, 1990; Schacter, 1992). A familiar form of implicit memory is procedural memory or "how-to" knowledge (Anderson, 1982; Lieberman, 2000; Smith, 1984) of skills that are useful in various activities, such as walking or driving a car. Research has demonstrated that with experience, even highly complex skills come to operate autonomously and without conscious guidance (Bargh & Barndollar, 1996; Shiffrin & Schneider, 1977; Smith & Lerner, 1986). As such, the acquisition of skills testifies to the enormous learning potential that is present in implicit memory. Another kind of implicit memory is observed in priming.
experiments, in which prior exposure to information facilitates the processing of subsequent, related information. For instance, participants recently exposed to the word caper are especially likely to generate this word in response to fragments such as "___APER" or "CAP___" (Tulving, Schacter, & Stark, 1982). Importantly, these priming effects occur even when people are unable to recall the priming word (Tulving et al., 1982). Implicit memory, then, seems to be largely dissociated from explicit or consciously reportable memory (but cf., Schacter, 1996).

Soon after the discovery of implicit memory, researchers began to explore whether unconscious mental processes might play a role in social cognition (for reviews, see Bargh, & Ferguson, 2000; Greenwald & Banaji, 1995; Hetts & Pelham, 2001). Early students of social cognition established that the recent priming or activation of a construct increases the chances that the construct will be applied to an ambiguous target (Higgins, Rholes, & Jones, 1977). Research in social inference later showed that the causal attribution process consists of automatic (and presumably unconscious), and controlled (and presumably conscious) judgments (Gilbert, Pelham, & Krull, 1988; Newman & Uleman, 1989). More recently, researchers have extended the logic of priming and unconscious inferences to stereotyping and intergroup evaluation (Banaji, Hardin, & Rothman, 1993; Bargh, Chen, & Burrows, 1996; Devine, 1989; Perdue, Dovidio, Gurtman, & Tyler, 1991). Of particular interest, implicit processes have also been implicated in more affectively driven, evaluative responses. In an extensive program of research, Zajonc (1980, 2000) and associates have convincingly argued that affective influences often occur outside of phenomenal awareness. For instance, their work showed that mere exposure to a stimulus increases liking for that stimulus, even when the stimulus is presented subliminally (Kunst-Wilson & Zajonc, 1980). In further support of the idea that implicit associations play a powerful role in affective processes, the seminal work of Fazio and associates showed that attitudes may be activated automatically by the mere presence of an attitude object (Fazio, Sanbonmatsu, Powell, & Kardes, 1986). In short, a wide range of social cognitive processes, including those that are highly evaluative, appear to be grounded in unconscious mental processes.

Inspired by these converging findings in cognitive science and social cognition, researchers have recently taken up the study of the implicit self-concept. In a highly influential call to arms, Greenwald and Banaji (1995) proposed that implicit positive associations towards the self play a role in a wide range of well-documented biases regarding self-associated stimuli, such as ingroup bias (Tajfel, 1970), similarity-attraction effects (Byrne, 1969), and role-playing effects in persuasion (Janis & King, 1954). This theoretical analysis was followed by a number of empirical investigations documenting the operation of implicit self-evaluations in ruminate thinking and depression (Koole, Smeets, van Knippenberg, & Dijksterhuis, 1999; Wenzlaff & Bates, 1998), stereotype threat (Rothermund, Wentura, & Brandstätter, 1995; Steele & Aronson, 1995), acculturation (Hetts, Sakuma, & Pelham, 1999), and decision making (Mather,
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Shafir, & Johnson, 2000; Pelham et al., in press). In addition, the interest in implicit social cognition that developed in the 1990s stimulated the development of systematic procedures for assessing implicit self-esteem, such as word stem completion measures (Hetts et al., 1999; Pelham & Hetts, 1999), evaluative priming tasks (Pelham & Hetts, 1999; Spalding & Hardin, 1999), and most notably, the widely used IAT or Implicit Association Test (Farnham, Greenwald, & Banaji, 1999). Although these new lines of research on the implicit self-concept are in their infancy, they have already produced strong evidence for the operation of unconscious processes in the self-concept.

THE UNBEARABLE MULTIPLICITY OF SELFHOOD

As we saw in the previous section, the interest in the implicit self-concept grew partly out of psychology's more general interest in automatic, unconscious forms of information processing. However, the fact that people sometimes process social information unconsciously does not guarantee that people possess implicit self-esteem. For one thing, conscious self-reflection has long been regarded as one of the defining features of selfhood (Baumeister, 1998; James, 1890; Kihlstrom et al., 1988; Sedikides & Skowronski, 1997). Thus, if implicit self-esteem proves to be a legitimate psychological concept, many self-concept researchers will have to reconsider some of their most cherished views regarding the definition of the self-concept. Because the idea of implicit self-esteem is antithetical to many traditional views of the self-concept, it might be useful to consider how to best conceptualize unconscious self-evaluation. Traditional views of the self have often likened the self to a spectator who "looks inward" to judge his or her inner qualities, analogous to a person who looks in a mirror and evaluates his or her outward appearance (Andersen & Williams, 1985; Hixon & Swann, 1993; Sedikides & Skowronski, 1997). Although this image may be phenomenologically accurate, it seems dangerously close to positing a homunculus or "little man" inside the head, a kind of theorizing that has been criticized on both theoretical and philosophical grounds (Bargh, 1990; Dennett, 1978). Moreover, the spectator metaphor does not offer a satisfactory way of describing the implicit self-concept. The operation of implicit self-evaluations does not involve any kind of introspection in the usual sense of the word. Indeed, the process of introspection appears to disrupt rather than to facilitate at least some of the default associations between implicit evaluations and self- or social judgments (Koole et al., 2000; Paulhus, 1993; Wilson & Schooler, 1991). In the theater of the unconscious self, there do not appear to be any spectators (see Damasio, 1994; Dennett, 1991, for related arguments).

What then, is a better metaphor for understanding implicit self-evaluation? One useful analogy was suggested by Greenwald (1982), who likened the self to a computer on which multiple programs can be run simultaneously. Just as a word processing program of a given computer is unable to read every code that was written in its graphics program, certain self-conceptions may be
inaccessible to the self-system that generates the experience of conscious self-reflection. A similar metaphor has been suggested by Nowak, Vallacher, Tesser and Borkowski (2000), who proposed that there may be a "society of selves", a self-system that consists of relatively simple processing elements that are continuously exchanging information with each other. Notably, Nowak et al. (2000) also specified a formal model of their self-system, so that they were able to explore its functioning by means of a series of computer simulations. Using this methodology, Nowak et al. (2000) showed that their hypothesized self-system is capable of organizing itself into an integrated structure, even in a highly dynamic, constantly changing environment. Thus, Nowak et al. (2000) demonstrated that a stable self-system may emerge out of the operation of simple processing elements in a more or less spontaneous fashion without the supervision of a conscious spectator or homunculus. Recent evidence even suggests that such seemingly analytical forms of self-regulation as dissonance reduction may occur unconsciously (Pyszczynski et al., 1997; Lieberman, Ochsner, Gilbert, & Schacter, 2001; Smith & DeCoster, 2000).

The idea of the self as a "society" or conglomerate of multiple subsystems suggests that many processes within the self may occur in parallel and may thus be relatively independent of one another. Some of these processes may be experienced in phenomenal awareness, and hence may be available for self-report. Other processes, however, may operate predominantly on an implicit level, and relate only indirectly to the self's more conscious aspects. At first blush, this picture of the self may seem awkward. That is, a "society of selves" might seem to be too fragmented and disorganized to describe the experience of psychologically healthy individuals (Baumeister, 1998; Deci & Ryan, 2000; Kihlstrom et al., 1988). Nevertheless, we suggest that selfhood may exist in very different forms at the functional and the phenomenological level. That is, individuals may typically experience the self as a unity, although different subsystems are continuously operating outside of phenomenal awareness (Epstein, 1994; Kuhl, 2000; Martin & Tesser, 1996). Thus, whereas the conscious experience of disunity within the self is psychologically distressing (Deci & Ryan, 2000; McGregor, Zanna, Holmes, & Spencer, in press), the functional multiplicity of the self may be a universal aspect of the human cognitive-affective architecture (Kuhl, 2000). Functionally, many physical and psychological processes are the result of a complex interplay between different systems. For instance, hunger may be independently influenced by blood sugar levels, feedback from hypothetical liporeceptors, conditioned cues that facilitate eating, and recent activity levels. However, for most people the phenomenal experience of hunger is as simple and unitary as it is aversive. The functional multiplicity of selfhood suggests that there are important aspects of the self of which normal, well-adjusted individuals are unaware. In this sense, the functional multiplicity of selfhood implies that a certain degree of alienation is an inescapable aspect of selfhood (Kuhl & Beckmann, 1994; but see Deci & Ryan, 2000).
ARE NAME LETTER PREFERENCES REALLY A REFLECTION OF IMPLICIT SELF-ESTEEM?

Assuming that implicit self-esteem is a meaningful construct, is there any reason to believe that name letter preferences are valid indicators of implicit self-esteem? According to Greenwald and Banaji (1995, p. 11), implicit self-esteem is "the introspectively unidentified (or inaccurately identified) effect of the self-attitude on the evaluation of self-associated and self-dissociated objects". Moreover, because most people have positive attitudes toward the self (Greenwald, 1980; Koole et al., 2000; Taylor & Brown, 1988), one of the signatures of implicit self-esteem should be a positive bias toward self-associated stimuli. Thus, the name letter effect qualifies as a form of implicit self-esteem if it can be established that (a) name letters are associated with self; (b) name letter evaluations are generally positively biased; (c) people are unaware of being biased toward their own name letters and (d) positive bias for name letters cannot easily be accounted for by factors other than the association between name letters and self. We next consider the existing evidence for each of these important propositions.

To begin with, if name-letter preferences qualify as a form of implicit self-esteem, then name letters must be shown to be associated with the self. The association between name letters and the self seems almost tautological. Personal names are both functionally and symbolically associated with the self (Dion, 1983). Indeed, it is difficult to think of a social symbol that is more closely associated with a person's identity than his or her name. At about the same time that children appear to recognize themselves in the mirror, they begin to refer to themselves using their own names (Darwin, 1877; Lewis & Brooks-Gunn, 1979). At a more existential level, personal names are a symbolic affirmation of the person's existence, a point that was emphasized by Ernest Becker (1962, p. 19-20, italics in original):

"What [was] needed for a true ego was a symbolic rallying point, a personal and social symbol- an I. In order to thoroughly unjumble himself from his world, the animal must have a precise designation of himself. The "I", in a word, has to take shape linguistically. . . . The "I" is not airy. It is bolstered by a name, a crying claim for recognition that has nothing airy about it."

The intimate connection between having a name and having a self is further supported by research showing that changing one's name is associated with identity change (Dralle & Mackiewitz, 1981; Kang, 1972; Lawson, 1984). An notable illustration of this can be found in rural China, where naming practices are different for men and women (Watson, 1986). For Chinese men, the process of naming marks important social transitions: with each important transition, a Chinese man receives an additional name, so that his person becomes increasingly individuated. By contrast, married women in rural China remain essentially nameless, implying that they never attain full
personhood. In the United States, where most people are given their full names at birth, people also appear to consider their names a crucial aspect of the self. As an example, in a study of the spontaneous self-concept, McGuire and Padawer-Singer (1976) specifically instructed their 11 and 12-year-old participants not to write their names anywhere on their self-concept surveys (to protect the children's anonymity). Despite this admonition, almost 20% of their participants listed their names in response to the "Who are you?" question. An early study by Holt (1939; cited in Dion, 1939) made a similar point with adults. Holt asked 30 adults whether they could imagine being named anything else and still be the same person that they were. Most participants reported that they could not.

Laboratory research on names and attention also suggests a strong association between names and self. In particular, the well-known "cocktail party effect" strongly suggests that people's attention is automatically drawn toward their own names (Cherry, 1953; Minami, Tsuru, & Tsunetaka, 1992; Shapiro, Caldwell, & Sorensen, 1997; Wood & Cowan, 1995). To examine the potency of people's attentional preferences for their own names, Oswald, Taylor, and Treisman (1960) tested sleep-deprived participants for their responses to their own names during moderately deep sleep. Prior to being allowed to sleep, these participants learned that they would be played an audiotaped list of names while they were sleeping. Oswald et al. instructed their sleepy participants to wake up and clench their fists whenever they heard either their own name or an arbitrarily chosen control name. When these sleeping participants were played their own names, they produced observable hand movements more than 25% of the time. When they were played the salient control name for which they were given identical instructions, they produced hand movements only about 12% of the time. Finally, when they were played any of the other names on the list, they produced hand movements less than 2% of the time. This automatic attention to own names closely parallels people's automatic vigilance for other self-associated stimuli (Bargh, 1982).

Second, to qualify as an indicator of implicit self-esteem, name letter evaluations should be positively biased, at least for most people. As noted previously, there is substantial evidence for a positive bias in people's name letter evaluations. This effect was first discovered among Flemish participants (Nuttin, 1985) and subsequently replicated across different forms of evaluative responding, including preferences (e.g., Nuttin, 1985), rankings (Hoorens & Nuttin, 1993), and rating scales (Kitayama & Karasawa, 1997; Koole et al., 2001). Positive name-letter preferences have been documented in at least 12 different European countries (Nuttin, 1987), the United States (Johnson, 1986, cited in Greenwald & Banaji, 1995), Thailand (Hoorens, Nuttin, Erdélyi-Herman, & Pavakanun, 1990), and Japan (Kitayama & Karasawa, 1997). Notably, these replications involved different alphabets, including the Roman (Nuttin, 1985, 1987), Greek (Nuttin, 1987), Cyrillic (Hoorens & Todorova, 1988), Thai (Hoorens, Nuttin, Erdélyi-Herman, & Pavakanun, 1990), and Japanese (Kitayama & Karasawa, 1997) alphabets. In addition, it is worth
nothing that robust name letter preferences have been found in collectivistic or interdependent cultures such as Thailand (Hoorens et al., 1990), Japan (Kitayama & Karasawa, 1997), and Singapore (Seah & Pelham, 2001). This cross-cultural generality is noteworthy in light of the recent debate on the cultural relativity of the self-enhancement motive (Heine, Lehman, Markus, & Kitayama, 1999; Hetts et al., 1999; Koole et al., 2000).

Third, for name letter preferences to qualify as implicit, people should have little or no awareness of their preferences for their own name letters. Research on the name letter effect has sought to document this in a variety of ways. For instance, some researchers present participants with random arrangements of all letters of the alphabet -- to obscure the association between name letters and self. In some studies, researchers have also intermixed all of the letters of the alphabet with self-irrelevant symbols and instructed participants that they were simply providing pilot data regarding people's preferences for different letters, numbers, and symbols (e.g., Jones, Pelham, Mirenberg, & Hetts, 2002). Despite these precautions, research has documented reliable name letter effects. A further indication that people are generally unaware of favoring their own name letters is that the name letter effect has been documented in collectivistic cultures (Hoorens et al., 1990; Kitayama & Karasawa, 1997). Because collectivistic cultures discourage the expression of private self-esteem, it seems unlikely that members of such cultures would intentionally advertise their egotism to social scientists. Additional evidence for the unconscious nature of the name letter effect was reported by Nuttin (see Nuttin, 1987, p. 358), who challenged 100 participants to discover a hidden structure in the stimulus lists he used to assess the name letter effect. Although Nuttin offered his participants a large monetary reward and placed them under no time limits, no one was able to discover the hidden structure in the stimulus lists. Nevertheless, Nuttin observed a reliable name letter effect (Nuttin, 1987). Corroborating Nuttin's findings, Koole et al. (2001) found that their participants, who displayed a reliable name letter effect, did not report thinking about their own names when they were evaluating letters of the alphabet.

Perhaps the most compelling demonstration that name letter preferences are implicit was provided by Wentura, Kulfanek, and Greve (2001). Wentura et al. adapted an affective priming paradigm (Draine & Greenwald, 1998; see also Fazio et al., 1986; Hetts et al., 1999) to study people's affective associations to their own first and last initials. Specifically, Wentura et al. subliminally primed people with either their own initials or yoked participants’ initials. These subliminal primes were immediately followed by strongly valenced target words such as honest, healthy, cruel, or lonely, and participants were instructed to press a key as quickly as possible to indicate whether each target word was positive or negative. As Wentura et al. expected, priming people's initials facilitated their categorization of positive as opposed to negative words. Notably, the effects of initial letter priming were especially pronounced for participants with high levels of explicit self-esteem. Wentura's findings thus
provide the strongest evidence to date that name letter preferences are operating at unconscious levels.

Fourth, if name letter preferences truly constitute a form of implicit self-esteem, the preference people possess for their own name letters should be uniquely attributable to the association between name letters and the self. In the case of name letter evaluations, strategic considerations seem to be ruled out, because there are no known material or pragmatic benefits associated with preferring one's name letters over other letters of the alphabet. Alternatively, there is at least one plausible alternate explanation for the name letter effect, namely the mere exposure effect (Zajonc, 1980). The mere exposure effect refers to the well-established finding that people prefer stimuli to which they have been frequently exposed. Assuming that people are exposed more frequently to their own name letters than to other letters, the mere exposure effect can easily account for name letter preferences (Zajonc, 1998, p. 615).

On close inspection, however, this interpretation seems unlikely. First, exposure frequency effects asymptote at much lower frequencies than the frequencies of exposure to alphabet letters in literate samples (see Greenwald & Banaji, 1995). Furthermore, a recent empirical study addressing this issue yielded no evidence that the name letter effect is mediated by the frequency of occurrence of name letters in a language (Kitayama & Karasawa, 1997). In a related vein, the name letter effect is independent of people's subjective estimates of the frequency of occurrence of own name letters in a language (Hoorens & Nuttin, 1993). In addition, people display clear name-letter preferences when exposure to name-letters and non-name letters in an alleged foreign alphabet is experimentally held constant (Feys, 1995). Jones et al. (2002) have also collected data that appear to rule out the mere exposure effect as an explanation for name-letter preferences. First, Jones et al. showed that people who possess relatively rare name-letters strongly preferred their own name letters to even the most commonly occurring letters in the English alphabet. Second, consistent with a large body of research on self-regulation and self-enhancement, Jones et al. showed that when people who were high in explicit self-esteem were exposed to a psychological threat, they compensated for the threat by showing exaggerated name-letter preferences. In contrast, low self-esteem participants showed evidence of the opposite tendency. These findings, too, suggest that name letter preferences have more to do with self-evaluation than with mere exposure. The available evidence thus suggests that mere exposure cannot fully account for the name letter effect.

In summary, people show a general tendency to overevaluate own name letters. This tendency occurs unconsciously, and it cannot be reduced to methodological artifacts, cultural-linguistic idiosyncracies, or mere exposure. Accordingly, the most viable interpretation is that overevaluation of own name letters is driven by implicit self-esteem mechanisms (Greenwald & Banaji, 1995; Kitayama & Karasawa, 1997; Koole et al., 2001).
If one assumes that name letter preferences constitute a form of implicit self-esteem, this raises the question of whether name letter preferences are systematically related to traditional, explicit measures of self-esteem. Recent investigations have assessed the correlation between these two types of measures. These initial investigations have consistently shown that name letter preferences are at best only weakly associated with explicit measures of self-esteem (Bosson, Swann, & Pennebaker, 2000; Pelham, Koole, Hardin, Hetts, & Seah, 2001a; Koole et al., 2001). Thus, the name letter effect appears to be dissociated from explicit forms of self-esteem.

The dissociation between the name letter effect and explicit self-esteem parallels findings on the relation between explicit self-esteem and alternative measures of implicit self-esteem (Bosson et al., 2000; Farnham et al., 1999; Pelham & Hetts, 1999). It also parallels findings regarding the relation between implicit and explicit measures in other areas (Dovidio, Kawakami, & Beach, 1999; McClelland, Koestner, & Weinberger, 1989; Schacter, 1992; Wilson, Lindsey, & Schooler, 2000). Many have concluded from these dissociations that implicit and explicit responses are mediated by separate cognitive systems (Epstein, 1994; McClelland et al., 1989; Smith & DeCoster, 2000; Wilson et al., 2000). Although alternative models have been proposed (e.g., Kruglanski & Thompson, 1999), most theorists have converged on a dual-process conception, in which implicit processes are mediated by an automatic-intuitive cognitive system and explicit processes are mediated by an controlled-rational cognitive system (see Chaiken & Trope, 1999; Smith & DeCoster, 2000). For instance, Epstein's (1994) Cognitive-Experiential Self Theory (CEST) has posited an experiential and a rational cognitive system. The experiential system operates primarily on an unconscious level and processes information holistically, rapidly, and effortlessly. By contrast, the rational system operates primarily on a conscious level and processes information serially, slowly, and effortfully. Although the two systems are seen as independent, they are assumed to interact so that behavior is typically influenced by both systems.

In light of the broad applicability of dual-process models, it seems reasonable to suppose that similar processes might be operating in self-evaluation. Consistent with this idea, Epstein and Morling (1995) argued that the two systems may map on to implicit and explicit self-evaluation, with the rational system predominating in people's explicit self-evaluations, and the experiential system predominating in people's implicit self-evaluations. Thus, dual-process models such as Epstein's CEST may provide a framework for understanding the relation between implicit and explicit self-evaluation. Generally speaking, dual process models assume that controlled, deliberative processing is more effortful than automatic, intuitive processing. Thus, deliberative processing should mainly influence people's explicit self-evaluations when they possess sufficient motivation and cognitive resources for doing so. However, to the extent that
people lack either the motivation or the cognitive resources to engage in controlled information processing, people's explicit self-evaluations should be driven by more automatic processing. Assuming that people's implicit self-evaluations are generally mediated by automatic processing, this implies that the association between implicit and explicit self-evaluation should become greater with decreasing motivation or dwindling cognitive resources.

This dual-process conception of implicit and explicit self-esteem was recently tested by Koole et al. (2001). More specifically, Koole et al. examined the degree of congruence between the name letter effect and self-reported self-evaluation as a function of cognitive load. To manipulate cognitive load, the researchers asked participants to hold either an eight-digit or a one-digit number in memory while they were rating the self-descriptiveness of a series of personality traits. Koole et al. hypothesized that self-evaluations rendered under high cognitive load would be more likely to be influenced by automatic self-evaluations, and thus show high congruence with the name letter effect. By contrast, self-evaluations rendered under low cognitive load were expected to be more influenced by deliberative self-evaluations and thus to show low congruence with the name letter effect. In line with these expectations, Koole et al. found that self-evaluations reported under high cognitive correlated .48 with the strength of people's name-letter preferences. In contrast, self-evaluations reported under low cognitive load were uncorrelated with people's name-letter preferences. Koole et al. observed conceptually similar findings in another study, which used variations in processing speed to operationalize cognitive load.

The research by Koole et al. (in press) was concerned with situational influences that cause people to shift from conceptual to more intuitive processing in evaluating themselves. However, a dual-process conception of self-evaluation is also compatible with the existence of chronic individual differences in the reliance on deliberative versus intuitive self-evaluation. This possibility was recently explored by Pelham et al. (in press). Based on research on gender-role socialization, Pelham and associates reasoned that men and women are socialized to attend to their emotions and intuitions in different ways. Specifically, from early childhood, men are typically encouraged to be strong and rational, whereas women are typically encouraged to attend to and trust their feelings and intuitions. Given these different socialization experiences, men may more easily lose touch with their intuitions about themselves, resulting in a dissociation between implicit and explicit self-esteem. By contrast, women can be expected to develop a greater sensitivity to their intuitive self-evaluations, so that, for women, implicit and explicit self-esteem are more likely to go hand in hand. In support of this reasoning, two separate studies showed that the correlation between name letter preferences and explicit self-esteem was stronger for women than for men. Notably, these studies were conducted in Singapore and in Amsterdam, suggesting that these results possess considerable cross-cultural generality. Moreover, similar findings were obtained in three U. S. samples using Hetts et al.'s (1999) Implicit Self-
Evaluation Scale, attesting to the convergent validity of the name letter preference measure. Taken together, the research by Pelham et al. (in press) provides initial evidence that chronic differences in information processing moderate the congruence between implicit and explicit self-esteem.

The research by Koole et al. (2001) and Pelham et al. (in press) suggests that researchers should move beyond the question of whether name-letter preferences are correlated with explicit self-esteem, to the more interesting question of when name-letter preferences are correlated with explicit self-esteem. Based on dual-process models, any variable that leads people to rely on their automatic self-evaluations can be expected to increase the congruence between implicit and explicit self-esteem. Conversely, any variable that induces people to engage in deliberative self-reflection can be expected to reduce the congruence between implicit and explicit self-esteem. As such, dissociations between implicit and explicit self-esteem may be viewed as a relatively common outcome of the self-evaluation process. After all, such dissociations may arise in large part because self-concept surveys often encourage people to engage in thoughtful self-reflection (Koole et al., 2001).

Still, a dual-process account does not preclude the possibility that dissociations between implicit and explicit self-esteem may be driven by specific motivational processes. For instance, people may be motivated to correct their highly favorable implicit self-evaluations when they feel that the situation calls for modesty (Tice, Butler, Muraven, & Stillwell, 1995). Alternatively, people may effortfully suppress their implicit self-evaluations when these are predominantly negative or otherwise threatening (Paulhus, Fridhandler, & Hayes, 1997; Wenzlaff & Bates, 1998). In line with the latter possibility, Bosson and Swann (1998; cited in Bosson et al., 2000) found that people with high explicit and low implicit self-esteem scored higher in narcissism than people with any other combination of implicit and explicit self-esteem. Given that narcissism is strongly linked with defensiveness (Baumeister & Cairns, 1992; Rhodewalt & Morf, 1995), this finding suggests that discrepancies between implicit and explicit self-esteem can sometimes result from defensive mechanisms. Finally, some researchers argue that implicit self-esteem may play an important role in self-regulation (Dodgson & Wood, 1998; Jones et al., 2002). In particular, implicit self-evaluations may constitute a rich source of positive associations about the self-associations that are automatically activated in distressing situations. Accordingly, implicit self-esteem may help people with high explicit self-esteem to maintain their positive self-conceptions, especially when these positive self-conceptions are being challenged. In line with this reasoning, a study by Jones et al. (2002) showed that when people had just experienced a mild psychological threat, there was a substantial correlation between people's name letter preferences and their previously reported explicit self-esteem scores. In contrast, in a non-threatening control condition, there was no association whatsoever between name letter preferences and explicit self-esteem. In summary, the relation between implicit and explicit self-esteem is
probably determined by multiple processes, including deliberative thinking, suppression, repression, and self-regulation.

**REAL-LIFE CONSEQUENCES OF THE NAME LETTER EFFECT**

Thus far, we have only discussed laboratory demonstrations of the name letter effect. Although this research has important implications for theories of the self-concept, one might ask whether there are any real-life implications of people's name letter preferences and other forms of implicit self-esteem. As Greenwald and Banaji's (1995) review showed, seminal demonstrations of implicit self-esteem phenomena already point to an influence of implicit self-esteem on socially significant behaviors, such as ingroup bias (Tajfel, 1970), economic decision making (Kahneman, Knetsch, & Thaler, 1990), and interpersonal attraction (Byrne, 1969). However, these findings were collected by researchers from various theoretical orientations and were never explicitly meant to test the psychological consequences of implicit self-esteem. Thus, it remains to be seen whether name-letter preferences have an observable impact on real-world judgments and decisions.

In a recent series of studies, Pelham and colleagues set out to explore whether name-letter preferences might influence people's major life decisions (Pelham et al., in press). The core idea behind this research was that if people have a preference for their own name letters, then they might also prefer people, places, or careers whose names share their name letters. In an initial test of this idea, Pelham et al. used an internet telephone directory to see if people were disproportionately likely to live in states that strongly resembled their first names. In one study, Pelham et al. systematically generated six male and six female names that each shared a minimum of their first four letters with a Southeastern state. Focusing on a single region of the country reduced the likelihood of ethnic confounds. In addition, there happen to be quite a few names that resemble Southeastern state names (i.e., there are many more women named Georgia, Virginia, and Mary than named Oklahoma, Ohio, or Massachusetts). Their hypothesis was that, if people have an egotistical preference for name letters, those whose first names resembled the name of a specific state would be over-represented among the residents of that specific state. This is precisely what they found. For both men and women, the number of matches between names and states was quite a bit higher than the values suggested by population base-rates. Moreover, by examining social security death index records as well as telephone records, Pelham et al. documented that these findings were not an artifact of ethnic confounds (e.g., French women named Louise living in Louisiana) or age confounds (e.g., older women named Florence living in Florida). Finally, in a series of supplemental analyses involving people who had moved from one state to another during adulthood, Pelham et al showed that people were not merely born in but actually moved to
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states whose names resembled their own. Overall, there was initial support for the idea that the positive associations people have for the letters in their first names influence their decisions about where to live.

In an extensive series of follow-up studies, Pelham et al. replicated the name-place letter matching effect for (a) people whose surnames resembled the eight largest U. S. states, (b) people whose surnames resembled the eight largest Canadian cities, and (c) people whose first or last names were the same as any of the 38 Saints for whom any and all U.S. "Saints" cities were named (e.g., Saint Louis, Saint Paul, Saint Joseph). The finding that the name-place matching effect applies to surnames as well as first names is important because it suggests that the name-place matching effect cannot be a simple function of priming (which would occur if parents knowingly or unknowingly name their children after the places in which they lived). Pelham et al. also showed that people disproportionately choose careers whose labels resemble their own names (e.g., both men and women whose first names begin with the letters "Den" are disproportionately likely to become dentists). Finally, in a series of comprehensive and exhaustive archival studies of marriage records (e.g. the more than 85,000 married couple who registered a birth in the state of Texas in 1926, more than 50,000 exhaustively sampled California death records), Pelham, Jones, Mirenberg, and Carvallo (2001b) showed that people are disproportionately likely to marry people whose surnames begin with the same letters as their own. Because these marriage effects occurred within as well as between different ethnic groups (e.g., Whites, Blacks, Latinos, Chinese, Koreans), these findings cannot be attributed to ethnic matching. Thus, Pelham et al. obtained converging evidence that name letter preferences play a significant role in a wide range of major life decisions.

At first glance, it may seem dysfunctional to allow one's egotistical preference for one's own name letters to influence one's major life decisions. After all, it seems highly capricious to base major life decisions on one's preferences for particular letters of the alphabet. Although such unconscious preferences might seem irrational, it is possible that behavioral name-letter preferences might be grounded in highly adaptive processes (cf. Bargh & Barndollar, 1996; Heckhausen & Beckmann, 1990). Theoretically, people's preference for their own name letters is an indicator that people attach positive meanings to the self. This tendency to hold the self in high regard is considered by many psychologists to be a vital aspect of mental health, because it may help people cope with adversity and negative emotions (Greenberg, Solomon, & Pyszczynski, 1997; Koole et al., 2000; Taylor & Brown, 1988). Moreover, being surrounded by people, places and things that resemble one's name may foster feelings of attachment and connection with one's social and physical surroundings. For instance, living in a city that resembles one's own name may make it easier for a person to identify with this particular city, and to regard the city as his or her own. Thus, the seemingly irrational tendency for people to base important life decisions on their name-letter preferences may ultimately prove to be highly adaptive.
SUMMARY, IMPLICATION, AND AVENUES FOR FUTURE RESEARCH

In this chapter, we have reviewed research on the name letter effect with the goal of learning more about the nature of implicit self-esteem. The research we reviewed strongly suggests that name letter preferences constitute a form of implicit self-esteem. Specifically, (a) names and name letters are strongly associated with the self, (b) name letter evaluations are positively biased, (c) people are unaware of being biased towards their own name letters, and (d) the positive bias for one's own name letters cannot be readily explained by alternative accounts. In addition, name letter preferences turn out to be related to explicit self-evaluations in predictable ways. Consistent with dual-process models, name letter preferences correlate with explicit self-evaluations primarily when the explicit self-evaluations are rendered under conditions most likely to reflect automatic processing. Finally, the name letter effect has an observable influence on major life decisions such as choosing where to live, what career to pursue, or whom to marry. Thus, name letter preferences appear to qualify as a valid marker for implicit self-esteem. As such, further research on the name letter effect could generate important new insights into the nature of the implicit self-concept. In this final section, we consider some promising avenues for further research and discuss some of the more far-ranging implications of research on the implicit self-concept.

One key issue for further research is concerned with the potentially adaptive functions of the name letter effect. Given the often arbitrary manner in which people come to possess their names, name letter preferences might seem highly irrational. On methodological grounds, this arbitrariness is highly desirable, because it allows researchers to rule out any material or pragmatic considerations that might lead to a preference for own name letters (Hoorens, 1990; Nuttin, 1985). However, as noted previously, the seeming irrationality of the name letter effect should not be taken as evidence that name letter preferences are dysfunctional. On the contrary, there are good reasons to believe that it is adaptive to possess a rich base of positive associations about the self (Greenberg et al., 1997; Koole et al., 2000; Taylor & Brown, 1988). From this perspective, the name letter effect, as an indicator of such positive associations, could be a manifestation of a healthy psychological makeup. We regard such a functional account of the name letter effect as highly plausible, but it would be desirable to put this account to more rigorous empirical testing. For example, future research might examine the emotional or behavioral consequences of the elevated name letter preferences that sometimes occur in response to psychological threat (see Dodgson & Wood, 1998; Jones et al., 2002). In addition, it may be worthwhile to investigate name letter preferences within clinical samples (see Wenzlaff & Bates, 1998; Pelham, DeHardt & Dehart, 2001). The results of this kind of research are likely to shed more light on the functions of the implicit positive self-evaluations that presumably underlie the name letter effect.
A second issue relates to the association between name letter preferences and other measures of implicit self-esteem. This issue is important because it relates to the question of whether implicit self-esteem is a single, unitary construct (as opposed to a loose confederation of independently determined associations). In principle, both options seem possible, although our theoretical account of the self as a conglomerate of subsystems (Kuhl, 2000; Nowak et al., 2000) is probably more compatible with the second possibility. Recent findings by Bosson et al. (2000) are highly relevant to this issue. These researchers examined the relations between some of the most widely used measures of implicit and explicit self-esteem, including initial letter evaluations, birthday number evaluations, an evaluative priming task (Pelham & Hetts, 1999; Spalding & Hardin, 1999), and an adaptation of the Implicit Association Test (Farnham et al., 1999). Importantly, the various implicit self-esteem measures were typically uncorrelated with one another. In fact, the only significant association Bosson et al. observed was a .23 correlation between initial letter evaluations and birthday number evaluations (see also Koole et al., 2001). Thus, these initial findings seem to be more consistent with the existence of multiple forms of implicit self-esteem.

The findings by Bosson et al. (2000) are reminiscent of findings of dissociations between different implicit measures that have been reported in other literatures (Lenton, Blair, & Hastie, 2001; Smith & Branscombe, 1988). For instance, Smith and Branscombe (1988) found that a trait accessibility measure and a word fragment completion test—which involved the same cognitive contents—were differentially affected by different priming procedures. The trait accessibility measure was most strongly affected by a priming procedure that led people to generate the relevant traits by themselves. By contrast, the word fragment completion test was most strongly affected by a priming procedure that led people to read the relevant trait words. Accordingly, each implicit measure was affected most strongly by the priming procedure that matched the specific kind of cognitive processing that was needed to complete the implicit measure. Applied to the study of implicit self-esteem, this research suggests that different measures of implicit self-esteem should mainly correlate with one another when they are mediated by similar kinds of processing. Some initial support for such process specificity has already been found, given that the only two implicit self-esteem measures that were correlated in the Bosson et al. (2000) research were precisely the two measures that were highly similar in the type of cognitive procedures that were needed to complete those measures (i.e., evaluating name letters vs. evaluating birthday numbers; see Koole et al., 2001, for a replication). In a similar vein, other associations between different implicit self-esteem measures have been found for measures that involved highly similar kinds of information processing (Farnham et al., 1999). Although more research on this issue is desirable, the principle of process specificity seems a promising way to account for the pattern of associations and dissociations between various implicit measures.
Beside the need to specify the structure and content of the implicit self-concept, it would also be useful to specify some of the broader implications of this line of research for our understanding of the self. On a general level, research on the implicit self-concept attests to the importance of unconscious processes in human behavior. Although it is now reasonably well documented that unconscious processes play a role in self-evaluation, the theoretical and empirical consequences of this fact are largely unexplored. After all, until very recently, self-concept researchers focused exclusively on those aspects of the self of which individuals are consciously aware. For instance, Kihlstrom and Klein (1994, p. 157) asserted that "in general, the self-concept is accessible to introspective phenomenal awareness." Likewise, an influential review by Baumeister (1998, p. 680) stated that "self begins when awareness turns around in a circle." Thus, notions of the self as a purely conscious phenomenon still dominate most contemporary analyses of the self. The experience of reflexive consciousness is one of the most unique aspects of human experience, and thus it is understandable that most students of the self have devoted much of their efforts trying to unravel its mysteries. Nevertheless, it seems a mistake to regard reflexive consciousness as a defining aspect of selfhood. As the current review has shown, unconscious processes play an important role in the functioning of the self. Unconscious self-associations exert a significant influence on a wide range of behaviors, including some of the most important decisions that people make in their lives (Pelham et al., in press, 2001b). Thus, it seems that traditional theories of the self may have underestimated the potency and pervasiveness of the self in everyday life. A great deal of self-evaluation and self-regulation is likely to take place on unconscious levels.

Broadening the scope of self-concept research could also lead to a renewed emphasis on the processes whereby self-evaluations are formed in the first place. Traditionally, self-concept researchers have focused on the contents and structure of people's self-evaluations (but see Paulhus, 1993; Swann & Schroeder, 1995, for important exceptions). Indeed, countless investigations have examined the contents of people's self-perceived personality traits, abilities, hobbies, body image, roles, values, and so on. Many other investigations have examined the organization of self-knowledge into self-schemata (Markus, 1977), associative networks (Klein & Loftus, 1993; Rogers, Kuiper, & Kirker, 1977), and exemplar representations (Klein & Loftus, 1993). Because the contents of particular explicit self-evaluations generally display meaningful relations with the contents of other self-evaluations, it is understandable that a focus on contents has become the standard in self-evaluation research. However, research on the name letter effect (and related forms of implicit self-concept) has shown that people's name letter preference and explicit self-evaluations may not be correlated, despite the fact that the contents of these self-evaluations are typically positive for the two kinds of measures. As such, self-concept researchers should do well to shift from studying only the contents and structure of the self-concept toward paying more
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attention to the different processes by which people's self-conceptions are formed (Pomerantz & Newman, 2000).

CODA

We began this chapter with an account of how a large number of Dutch families wound up with ridiculous and seemingly embarrassing names that they refused to abandon. By now, we hope that this strange tale has lost some of its mystery. Objectively speaking, the decision to stick with a ridiculous family name may seem like a peculiar form of self-abuse, which is likely to render one a perennial target of social ridicule. However, the current perspective suggests precisely the opposite. The decision to hold on to a ridiculous family name may stem not from self-abuse or a lack of social insight, but from a deep and abiding, albeit unconscious, affection for the self.

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