



possibility, however, is that similarity to the self would interact with valence. By this account, impression memory would be better for similar than dissimilar others associated with positive impressions, consistent with the idea that positive, self-relevant information is well-remembered (Skowronski, Betz, Thompson, & Shannon, 1991), but that impression memory would be poorer for similar relative to dissimilar others associated with negative impressions. Poor impression memory for those given a negative impression is compatible with prior work showing that negative, self-relevant information is typically poorly remembered (D'Argembeau & Van der Linden, 2008; Leary, 2007; Sedikides & Green, 2000). Furthermore, because memory for others displaying negative trait characteristics (e.g., cheating, selfish) is quite high (Cosmides, Tooby, Fiddick, & Bryant, 2005), it may be that dissimilar others associated with a negative impression may be remembered well, because such individuals could be threatening (Bell & Buchner, 2012). Either of these two possibilities would indicate the importance of similarity to the self on impression memory of others, having implications for how one remembers others encountered in daily life.

Across two experiments, we examined impression memory of others differing in degree of similarity to the self. First, we examined how similarity to the self affects the valence of the initial impression. Consistent with prior work, we predicted that similar others would be associated with more positive impressions and that dissimilar others would be associated more often with negative impressions (Baumeister et al., 2001; Mummendey & Otten, 1998). Second, we examined impression memory as function of valence across trials of high-, medium-, and low-self-similarity, based on self-descriptiveness ratings of traits collected after the memory test. Finding evidence that similarity to the self influences memory for the impressions of others would extend prior work showing that information relevant to oneself affects how memorable that material is subsequently (Leshikar & Duarte, 2012; Leshikar & Duarte, 2014; Leshikar, Dulas, & Duarte, in press; Rogers, Kuiper, & Kirker, 1977; Serbun, Shih, & Gutches, 2011; Symons & Johnson, 1997). Third, we evaluated memory for impressions (i.e., positive or negative) separate from other details such as face memory (e.g., have you seen this person before?) and behaviors (e.g., This person wore the same clothes for three days) because spontaneous trait inference studies indicate that people can remember inferences (e.g., honest or kind) even when they cannot remember the precise behavior underlying that inference, implying that some types of person-specific information can be represented somewhat independently in memory (Todorov & Uleman, 2003). Because of this, we examined the extent to which impression memory correlated with memory for faces and behaviors.

## 2. Experiment 1

### 2.1. Methods

#### 2.1.1. Participants

Twenty-nine adults (age: 20.9, *SD*: 1.7, range 18–25, 11 females) recruited from Brandeis University participated. Three additional participants were excluded due to insufficient numbers of trials to allow us to make comparisons across levels of similarity to the self, and one was excluded due to experimenter error. All participants gave informed consent in compliance with the Brandeis Institutional Review Board prior to participation<sup>1</sup>.

<sup>1</sup> A subset of this young adult data has been included in an additional aging study (Leshikar, Park, & Gutches, 2014) (ePub ahead of print).

#### 2.1.2. Materials

A total of 216 faces (Minear & Park, 2004) as well as 216 behavior-trait pairs served as stimuli. Faces consisted of equal numbers of young (20–39), middle-aged (40–59), and older adult (60–79) images normed for attractiveness and memorability. Behavior-trait pairs were drawn from normed stimuli (Uleman, 1988) that described a behavior (e.g., “This person returned the wallet with all the money in it.”) and a personality trait implied by the behavior (e.g., honesty). Half of the behavior-trait pairs were selected to elicit positive impressions and half negative (as determined by piloting). Across participants, behavior-trait stimuli were counterbalanced to appear equally often with female and male faces and as studied or novel lures at test. Faces were counterbalanced to appear with positive and negative behavior-trait pairs.

#### 2.1.3. Procedure

There were three phases in the experiment: study (i.e., impression formation), memory test, and post-test ratings (which allowed us to back-sort all trials into high-, medium-, or low-self-similarity). After practicing the study and test phases of the experiment, participants formed impressions for 144 trials over three study blocks, each containing 48 trials. On each study trial, a face, behavior, and trait word were displayed for 5750 ms, followed by a 250 ms fixation (see Fig. 1). Participants were instructed to form a positive or a negative impression of that person based on the face, behavior, and trait. Participants pressed “1” (positive) or “2” (negative) to indicate their impression with the first two fingers of the right hand.

The recognition memory test consisted of 216 trials (144 studied and 72 unstudied items). For each recognition trial, participants made two judgments: first, participants were shown a face and given 4750 ms to decide whether they had generated a positive impression or a negative impression for that face, or decide whether the face was new (i.e., not seen during study), by pressing either 1, 2, or 3 with the first three fingers of the right hand (see Fig. 1). This first decision was the basis for calculating both face and impression memory (see Section 2.2). Second, participants were then tested on their memory for the behavior. Participants were shown two behaviors and associated traits. The target consisted of the correct behavior and associated trait that had been paired with the face at study, and the lure consisted of an incorrect behavior and a trait of the same valence that had been paired with a different face at study. Participants also had the option to say that the face was “new”. Participants had 4750 ms to make their response by pressing either the 1, 2, or 3 keys with the first three fingers of the right hand. Trials were pseudo-randomized with no more than 4 novel trials presented in a row.

Following recognition, participants completed a post-test where they made two self-paced judgments for all 144 trait words they saw during the impression formation (study) phase of the experiment: first they rated the self-descriptiveness of the trait (e.g., am I kind?) on a three point scale (1 = describes me a lot, 2 = describes me a little, 3 = does not describe me) and then participants rated the importance of the trait when evaluating others (e.g., is it important to know that a person is kind?) (1 = very important, 2 = somewhat important, 3 = not at all important). Post-test judgments to the self-descriptiveness ratings were used to back-sort memory performance into high-, medium-, and low-self-similarity trials. Because there were no memory differences based on the “importance” ratings, this post-test measure will not be discussed further.

### 2.2. Results

At study, participants formed more positive, 56% (*SD*: 7%), than negative impressions 44%,  $t(28)=4.36$ ,  $p<.001$ . To examine whether valence of the impression differed as a function of

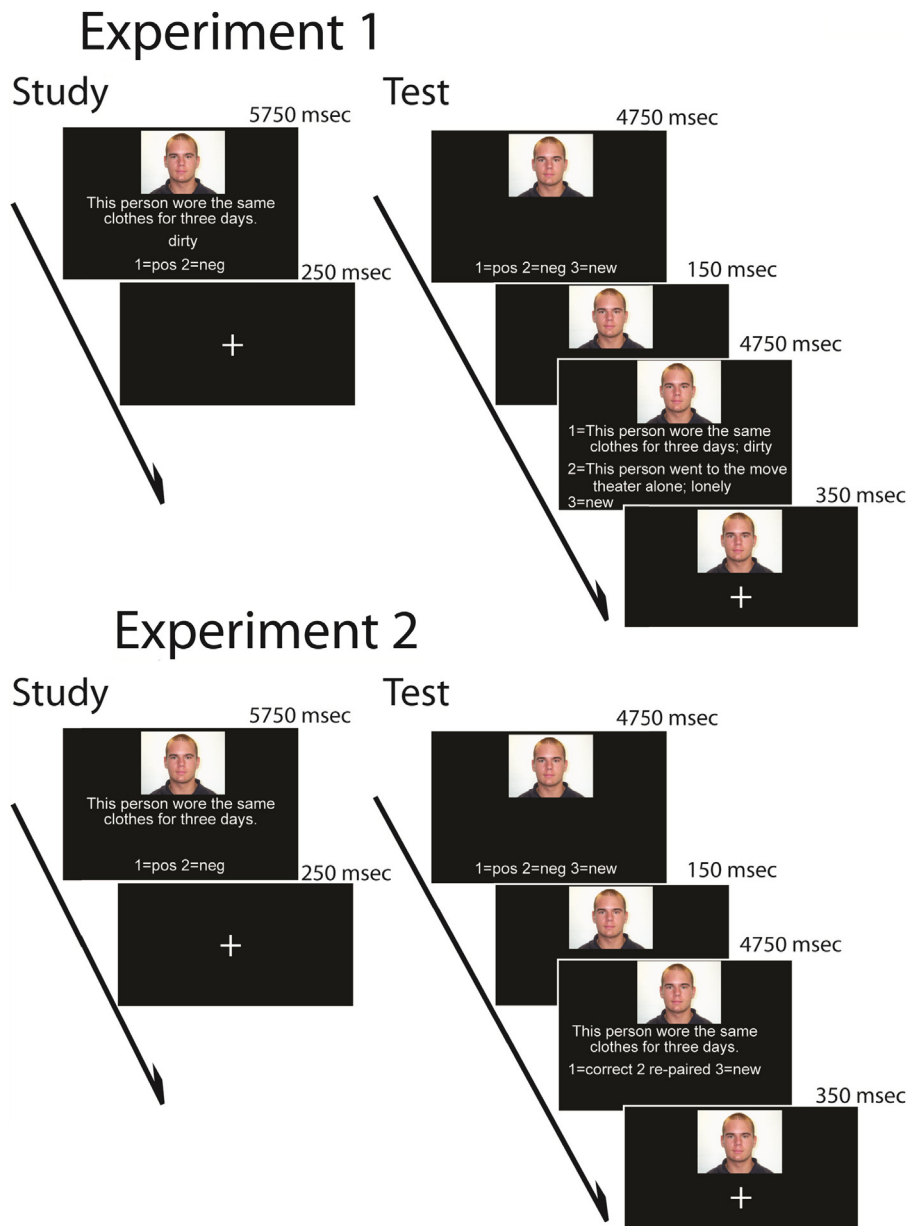


Fig. 1. Trial schematic for the study (impression formation) and test phases of Experiment 1 and 2.

similarity to the self (regardless of subsequent memory), we compared the proportions of high-, medium-, and low-self-similarity trials across valence. There were more high-self trials given positive than negative impressions (positive,  $M = .25$ ,  $SD = .10$ ; negative,  $M = .05$ ,  $SD = .05$ ),  $t(28) = 9.01$ ,  $p < .001$ . Similarly, there were more medium-self trials given positive impression than negative (positive,  $M = .24$ ,  $SD = .09$ ; negative,  $M = .16$ ,  $SD = .07$ ),  $t(28) = 2.61$ ,  $p = .01$ , but there were more low-self trials given negative impression than positive (positive,  $M = .07$ ,  $SD = .06$ ; negative,  $M = .23$ ,  $SD = .08$ ),  $t(28) = 11.08$ ,  $p < .001$ .

We next looked at recognition responses. Proportions of correct (e.g., trials given a positive impression at study remembered as positive at test) and incorrect (e.g., trials given a positive impression at study incorrectly remembered as negative at test) impression memory responses, and the proportion of studied items endorsed as new (misses) are shown in Table 1A as a function of the impression endorsement at study (negative, positive) and self-similarity (high, medium, low), along with responses to the novel (unstudied) items.

We calculated three measures of memory: face memory, impression memory, and behavior memory. Calculating multiple memory measures allowed us to assess similarity to the self across different types of person-specific details. We used the first recognition response (see Fig. 1) to calculate face memory as well as impression memory. First, we calculated face memory, or the ability to tell old from new faces, using signal detection measure  $A'$ , by comparing the proportions of hits (i.e., previously seen faces at study endorsed as either positive or negative at test) with the proportion of false alarms (i.e., unstudied items endorsed as positive or negative at test) (Snodgrass & Corwin, 1988), where chance is 50%. A valence (positive, negative) by self (high, medium, low) repeated measures ANOVA on face memory showed no significant main effects or interaction,  $F_s < 1.71$ ,  $p_s > .19$ ,  $\eta_p^2 < .06$ , suggesting that neither factor impacted participants' ability to discriminate old from new faces.

Second, we calculated impression memory—the ability to remember whether a face was associated with a positive or negative impression at study—by taking the proportion of correct



**Table 2**

Proportion of studied items associated with correct, or incorrect behavior recognition, as well as proportions of trials given a “new” response for the behavior decision (miss) for Experiment 1 is shown in (A). Proportion of studied items endorsed as intact, or re-paired, as well as trials given a “new” response for the behavior decision (miss) for Experiment 2 are shown in (B) as a function of whether the item was shown with the intact or re-paired behavior.

		Behavior memory		
		Correct behavior	Incorrect behavior	New (miss)
A. Experiment 1. Studied items as a function of:				
Self-similarity	Initial impression			
High	Positive	0.88 (0.12)	0.08 (0.10)	0.04 (0.06)
	Negative	0.86 (0.28)	0.07 (0.19)	0.07 (0.21)
Medium	Positive	0.88 (0.20)	0.08 (0.19)	0.04 (0.07)
	Negative	0.93 (0.12)	0.04 (0.10)	0.03 (0.06)
Low	Positive	0.93 (0.13)	0.04 (0.11)	0.03 (0.07)
	Negative	0.92 (0.12)	0.04 (0.09)	0.04 (0.07)
B. Experiment 2. Studied items as a function of:				
Intact trials				
Self-similarity	Initial impression			
High	Positive	0.80 (0.12)	0.19 (0.12)	0.01 (0.03)
	Negative	0.77 (0.30)	0.23 (0.30)	0.00 (0.00)
Medium	Positive	0.87 (0.13)	0.13 (0.13)	0.00 (0.01)
	Negative	0.91 (0.11)	0.09 (0.11)	0.00 (0.00)
Low	Positive	0.91 (0.13)	0.08 (0.13)	0.01 (0.03)
	Negative	0.91 (0.09)	0.09 (0.09)	0.00 (0.02)
Re-paired trials				
Self-similarity	Initial impression			
High	Positive	0.58 (0.23)	0.41 (0.23)	0.01 (0.04)
	Negative	0.60 (0.36)	0.39 (0.35)	0.01 (0.05)
Medium	Positive	0.66 (0.29)	0.33 (0.28)	0.01 (0.04)
	Negative	0.73 (0.27)	0.26 (0.26)	0.01 (0.03)
Low	Positive	0.60 (0.42)	0.38 (0.40)	0.02 (0.07)
	Negative	0.69 (0.20)	0.30 (0.20)	0.01 (0.03)

impression responses out of the correctly recognized old faces (formula: correct impressions/[correct impressions+incorrect impressions]) (This analysis is akin to a source accuracy measure; for similar procedures see Duarte, Henson, & Graham, 2008; Leshikar & Duarte, 2012). A valence (positive, negative) by self (high, medium, low) repeated measures ANOVA on impression memory indicated a valence effect,  $F(1, 28) = 6.91, p = .01, \eta_p^2 = .21$ , which was driven by better performance for the positive ( $M = .81$ ) than negative trials ( $M = .68$ ). There was also a significant valence by self interaction,  $F(2, 56) = 9.96, p < .001, \eta_p^2 = .27$ . Simple effects analysis showed a significant effect of self for positive items,  $F(2, 56) = 13.91, p < .001, \eta_p^2 = .34$ , but not for negative items,  $F(2, 56) = 0.73, p = .48, \eta_p^2 = .03$ . For positive items, impression memory for the high-self-similarity trials was better than the medium-self-similarity trials,  $t(28) = 3.05, p = .005$ , and the medium trials, in turn, were better remembered than the low-self-similarity trials,  $t(28) = 3.06, p = .005$  (See Fig. 2A).

Third, for behavior memory, proportions of correct and incorrect recognition memory responses, as well as the proportion of trials endorsed as new (misses) are shown in Table 2A. We calculated behavior memory using the proportion of correct responses out of the correctly recognized old trials. This memory measure did not differ as a function of valence or self-similarity [ $F_s < 1$ ] and scores approached ceiling [behavior memory > 90%], limiting the informativeness of these data.

Finally, to assess whether different types of person information were strongly related or were represented independently in memory (Todorov & Uleman, 2003), we correlated impression memory performance with both face and behavior memory (See Supplemental Table 1). Specifically, we correlated each impression memory score (e.g., high-self positive) with the respective face and behavior memory score. Face memory did not correlate with impression memory for any comparison ( $ps > .10$ ). Impression memory, however, did correlate significantly with behavior memory for only the high-self positive trials,  $r(27) = .37, p < .01$ . Fisher's  $z$  transformation ( $Z_r$ ) showed this correlation did not statistically

differ from any of the other correlations (e.g., medium-positive, low-positive, high-negative, etc.),  $Z_r$ 's < 1.33,  $p > .18$ , however. Overall, the results of the correlational analysis did not show a strong relationship between impression memory and either memory for faces or behaviors, suggesting some independence in how these details are represented in memory.

### 3. Discussion

In Experiment 1, we examined face memory, impression memory, and behavior memory as a function of similarity to the self and valence. We predicted that similarity to the self would affect subsequent recognition of impressions, but we were uncertain whether similarity to the self would interact with valence. Results supported the idea that self-similarity effects are qualified by valence: for positive impression trials, highly similar others were better remembered than dissimilar others, which is consistent with work showing that positive, self-relevant information is memorable (Bower & Gilligan, 1979; Skowronski et al., 1991). Unlike the positive impressions, however, we did not find a self effect for negative impressions, although, we note that there was a visual trend for a self-similarity effect in the opposite direction (i.e., better memory for low-self).

For face and behavior memory, we found no effect of self-similarity (although we note potential ceiling effects for behavior memory), which suggests that similarity to the self affects certain types of details, but not others. Corroborating this idea, the correlation results found no evidence that impression memory was strongly related to face or behavior memory, consistent with prior work suggesting separability of different person-specific types of details in memory (Todorov & Uleman, 2003). These findings indicate that similarity may particularly impact impression memory which arguably could be most influential regarding who would have the most adaptive value as a social partner (Clark & Lemay, 2010).

In addition, we assessed how self-similarity affected the impressions formed at study regardless of subsequent memory and found that more positive impressions were assigned to those similar to the self and more negative impressions to those dissimilar to the self. Although prior work has shown biases in social judgments that lead people to describe the self in positive terms and others in negative terms (Brown, 1986), we showed that *similarity* to the self was a good indicator of whether a person would be given a positive or negative impression. This is consistent with the idea that forming impressions is a subjective process (Wyer & Srull, 1986), guided by the contents of the self-schema (Higgins et al., 1982).

One limitation of Experiment 1 is that trait adjectives were presented at study and again on the post-test self-similarity ratings. It is possible that accessibility of the traits (e.g., more memorable traits) could have influenced the post-test self-descriptiveness rating. This possibility is consistent with work showing that accessible traits are typically rated as more similar to self (Higgins et al., 1982). This is potentially problematic in Experiment 1 because more memorable traits could have led participants to rate those trials as more similar to the self, which would have biased our memory results. We designed Experiment 2 to circumvent this potential concern.

## 4. Experiment 2

To reduce the potential influence of trait accessibility on memory, trait words in Experiment 2 were not shown during the impression formation phase; thus, participants saw the trait words only during the post-test. Although it is still possible that the trait word could be spontaneously generated by participants when reading the behavior, thereby increasing its accessibility, this design limits that possibility. In this experiment we also changed the design of the behavior memory test, attempting to bring performance from ceiling.

### 4.1. Methods

#### 4.1.1. Participants

Twenty-nine young adults (age: 19.9, *SD*: 2.1, range 18–26, 19 females) recruited from Brandeis University and the surrounding community participated. Five additional participants were excluded due to insufficient trials to compare across high-, medium-, and low-self-similarity. All participants gave their informed consent prior to participating in the study.

#### 4.1.2. Materials

The materials were identical to those in Experiment 1.

#### 4.1.3. Procedure

The procedure was the same as Experiment 1, with two exceptions: first, the trait words were not shown during the impression formation phase. Second, because behavior memory was at ceiling in Experiment 1, we increased the difficulty of the behavior recognition decision. To accomplish this, we presented only one behavioral sentence to participants. On half the recognition trials, the correct *intact* behavior was shown (i.e., the behavior that accompanied the face during the impression formation task), whereas on the other half of the trials, a *re-paired* behavior was shown (i.e., a behavior matched for valence that was paired with a different face during the impression formation task) (see Fig. 1). On each recognition trial, participants indicated whether the face was paired with the correct behavior by pressing 1 (*intact*), *re-paired* by pressing 2, or that the item was new by pressing 3.

## 4.2. Results

Participants formed more positive, 56% (*SD*: 8%), than negative impressions 44%,  $t(28) = 2.55, p = .02$ . We again looked at whether valence of the impression differed as a function of similarity to the self (regardless of subsequent memory). There were more high-self trials given a positive impression than a negative impression (positive,  $M = .27, SD = .08$ ; negative,  $M = .06, SD = .03$ ),  $t(28) = 12.87, p < .001$ . There was no difference across valence for the medium-self trials (positive,  $M = .22, SD = .09$ ; negative,  $M = .17, SD = .06$ ),  $t(28) = 0.97, p = .34$ , but there were more low-self trials given a negative impression than positive impression (positive,  $M = .07, SD = .04$ ; negative,  $M = .21, SD = .07$ ),  $t(28) = 12.10, p < .001$ .

We then looked at recognition responses. Proportions of correct and incorrect impression memory responses and the proportion of studied items endorsed as new (item misses) are shown in Table 1B as a function of first impression endorsement (negative, positive) and self-similarity (high, medium, low).

As in Experiment 1, face, impression, and behavior memory scores were calculated. For face memory a valence (positive, negative) by self (high, medium, low) ANOVA revealed a significant valence effect,  $F(1, 28) = 11.62, p = .002, \eta_p^2 = .29$ , which was driven by better memory for negative ( $M = .91$ ) than positive ( $M = .88$ ) trials. The effect of self and the interaction were not significant,  $F_s < 2.52, p_s > .09, \eta_p^2 < .08$ .

For impression memory a valence (positive, negative) by self (high, medium, low) ANOVA (Fig. 2B) indicated a valence effect,  $F(1, 28) = 5.95, p = .02, \eta_p^2 = .18$ , driven by better memory for positive ( $M = .78$ ) than negative ( $M = .68$ ) impression trials. There was also a self effect,  $F(2, 56) = 5.55, p = .006, \eta_p^2 = .17$ , driven by better memory for the medium- than the high- or low-self trials,  $t_s > 3.71, p_s < .01^2$ . Consistent with Experiment 1, there was a valence by self interaction,  $F(2, 56) = 41.04, p < .001, \eta_p^2 = .59$ . Simple effects analysis revealed a significant self effect for the positive impression trials,  $F(2, 56) = 15.59, p < .001, \eta_p^2 = .36$ , and also for the negative impression trials,  $F(2, 56) = 37.66, p < .001, \eta_p^2 = .57$ . Paired *t*-test for the positive items showed better impression memory for the high-self trials compared to the medium- or low-self trials,  $t_s > 2.2, p_s < .03$ . For the negative trials, however, higher self-similarity led to poorer memory. Low-self trials were better remembered than medium- or high-self trials,  $t_s > 2.7, p_s < .01$ . Memory for the medium-self trials was better than for the high-self trials,  $t(28) = 5.85, p < .001$ . These results suggest an inverse self-similarity effect for the negative impression trials.

For behavior memory, proportions of trials given “*intact*” or “*re-paired*” endorsements, and the proportion of items endorsed as new (misses) are shown in Table 2B. To examine behavior memory, we calculated *A'* using the hit rate for the *intact* pairs and the false alarm rate for the *re-paired* trials. A valence (positive, negative) by self (high, medium, low) repeated measures ANOVA revealed a Self effect,  $F(2, 56) = 5.46, p = .007, \eta_p^2 = .16$ , which reflected poorer memory for the high- than medium- and low-self trials,  $t_s > 2.44, p_s < .02$ . The medium- and low-self trials did not differ,  $t(28) = 0.41, p = .69$ . No other effects from the ANOVA reached significance,  $F_s < 1.58, p_s > .22$ .

Finally, we correlated impression memory performance with both face and behavior memory (See Supplemental Table 1). No significant correlations emerged from either analysis ( $p_s > .06$ ).

<sup>2</sup> Note that the better memory for the medium- than high- or low-self-similarity trials occurred when collapsing across valence. To calculate high-self memory performance, memory for the high-self positive trials (which was high) was combined with the performance for the high-self negative trials (which was low), whereas the contribution of valence was less extreme for the medium-self trials.

## 5. Discussion

In Experiment 2, we found a self by valence cross-over interaction with better impression memory for similar others given a positive impression and worse memory for similar others given a negative impression. Consistent with Experiment 1, similarity to the self affected impression endorsements at study leading to more positive impressions for those similar to the self. Replicating the same pattern for the positive impression trials using different experimental procedures adds support for our hypothesis that similarity to the self improves impression memory. We also found better memory for dissimilar others given a negative impression. Because memory for others showing negative characteristics (e.g., cheating, selfish) is quite high (Cosmides et al., 2005), this finding suggests that *dissimilar* others given a negative impression are remembered well. Although speculative, this may be an adaptive function in memory allowing one to remember someone who might be threatening (Bell & Buchner, 2012). Importantly, although this pattern only emerged as a visual trend in Experiment 1, it reached significance in Experiment 2.

For face memory, we found that faces associated with negative impressions were better remembered than those associated with positive impressions. This is in contrast to the results of Experiment 1 which found no evidence of a valence effect. One possible reason for this difference is that participants in Experiment 2 were studying only the face and the behavior, but not the trait words. With more time to study the faces, it may be that faces associated with the negative behaviors were more closely scrutinized, leading to better face memory performance. Consistent with this, face memory was indeed better in Experiment 2 (positive:  $M = .88$ ; negative:  $M = .91$ ) than in Experiment 1 (positive:  $M = .81$ , negative:  $M = .80$ ). Better memory for faces given negative impression trials is consistent with prior work (Baumeister et al., 2001).

Behavior memory showed a self-similarity effect with poorer memory for the high- than medium- or low-self trials. In contrast to Experiment 1 where memory approached ceiling (High,  $M = .91$ , Medium,  $M = .93$ , Low,  $M = .93$ ), our experimental manipulation in Experiment 2 made the task more difficult (High,  $M = .81$ , Medium,  $M = .87$ , Low,  $M = .87$ ), providing more sensitivity to identify this effect. These data suggest that the behaviors of those exhibiting high self-similarity are encoded less well than when a person shows characteristics dissimilar to the self. Prior work shows that over time people become less reliant on memory for specific behaviors and more reliant on their overall impression when thinking about others (Sherman & Klein, 1994), and it may be for those similar to the self that participants spend less time focusing on the specific behaviors in favor of thinking more about their generated impression. Further work will be necessary to consider this possibility. Finally, as in Experiment 1, we found no evidence that impression memory correlated with memory for faces or behaviors, which suggests some independence in how different types of details about others are stored in memory.

It is worth noting that a possible limitation of Experiment 2 is the use of traits (e.g., dirty) to assess the self-similarity of behaviors (e.g., wearing the same clothes for three days in a row). Although participants could find the trait (e.g., dirty) to be self-descriptive, they may not find the exact behavior to be self-descriptive. Despite this limitation we should note that Experiment 1, which presented the trait word alongside the behavior at study, yielded similar impression memory effects to Experiment 2.

## 6. General discussion

These experiments examined self-reference effects in memory for others varying in degrees of similarity to the self. Across two

experiments, we report two primary findings: First, for positive impressions, we found that impression memory was better for similar relative to dissimilar others. Second, for negative impressions, we found that impression memory was best for dissimilar relative to similar others (Experiment 2). Both results suggest the strong contribution of similarity to the self to person memory, but further suggest that valence interacts with similarity to the self in how people represent others in memory.

Forming impressions is a useful ability that allows a person to distinguish among individuals encountered on a daily basis, potentially preparing one for future interactions with other individuals. For those given positive impressions, we showed that impression memory was better for similar relative to dissimilar others. Research suggests that the self is a highly organized mental representation through which processed information is made more memorable through enhanced organization (Klein & Kihlstrom, 1986) and elaborated processing (Rogers et al., 1977). These data suggest that a similar mechanism operates in person memory, allowing one to better remember those who show characteristics that are salient and highly descriptive of the self, at least for positive impressions. Interestingly, although impression memory differed as a function of similarity to the self, participants' ability to recognize previously seen faces did not, suggesting the self effect may only influence memory for certain types of information such as impressions, but not others. Because people are intrinsically motivated to be a part of social groups (Baumeister & Leary, 1995), it may be that the memory effect we observed has an adaptive function, allowing you to identify and subsequently remember others with whom you might develop a meaningful relationship (Clark & Lemay, 2010).

In contrast to positive impressions, negative impressions resulted in better memory for those dissimilar to the self, a pattern most evident in Experiment 2. We see two non-mutually exclusive possibilities explaining this effect: First, such an effect might be socially adaptive, allowing one to remember those who may not promote one's well-being. It may be that people are attentive to those who are unlike the self, but who show negative characteristics (e.g., cheaters) because it is such individuals who may pose a threat to oneself (Bell & Buchner, 2012; Cosmides et al., 2005). Second, this finding also suggests a mechanism that is self-protective: When thinking about information that is both negative and self-relevant, participants may be motivated to process that information less deeply. Indeed, some evidence has shown that self-enhancement effects provide motivation to maintain a positive self-concept (D'Argembeau & Van der Linden, 2008; Leary, 2007; Sedikides & Green, 2000). Thus, when encountering someone new who is similar to the self on some negative characteristic, participants may be motivated to process details about those individuals less deeply because dwelling on such negative characteristics has the possibility of lowering ones' self-esteem. Overall, although much of the prior work has assessed self-other similarity only along one or two dimensions (extroversion, Fong & Markus, 1982; political leaning, Krienen, Tu, & Buckner, 2010; independence, Markus, 1977; masculinity, Markus, Smith, & Moreland, 1985; intelligence, honesty, Sedikides & Green, 2000), we observed these impression memory effects across a range of trait characteristics.

Behavior memory exhibited a different pattern than that of impression memory. We found that behavior memory was poorer for similar than dissimilar others (Experiment 2). Differences in memory between impressions and behaviors are likely due to differences in the types of details tested with these two memory measures. For impressions, participants were tested on their memory for internally generated information, whereas behavior memory was based on details provided by the experimenter. Previous work has shown differences in memory for self-versus experimenter-generated materials (Slamecka & Graf, 1978).





