When Arnold is “The Terminator”,
We No Longer See Him as a Man
The Temporal Determinants of Person Perception

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Abstract. The current research examined the intersection of social categorization and identity recognition to investigate whether and when one form of construal would dominate people’s responses to social targets. Using an automatic priming paradigm and manipulating prime duration to examine how familiarity with social targets and the time course of processing moderate construal, we asked participants to judge the familiarity and sex of faces (Experiments 1 and 2, respectively). The results revealed that both unfamiliar and familiar faces were initially categorized by sex but that familiar faces were quickly (and automatically) reclassified in terms of identity. Implications for models of face processing and person perception are discussed.

Keywords: face processing, person perception, categorization versus identification, familiarity, time course

One of the central requirements of social life is that we get along with others, and most would agree that knowing who or what someone is – in terms of sex, race, age, or unique identity – makes social exchange considerably more predictable. Indeed, the pivotal role of social category membership and individual identity in guiding person construal has been recognized for decades, albeit in separate research domains. An exhaustive literature in social cognition has attempted to document the cognitive dynamics of social categorization and stereotyping (e.g., Allport, 1954; Brewer, 1988; Fiske & Neuberg, 1990; Kunda & Thagard, 1996; for reviews, see Bodenhausen & Macrae, 1998; Macrae & Bodenhausen, 2000; Quinn, Macrae, & Bodenhausen, 2003), while more than two decades of research in cognitive psychology and neuroscience have been dedicated to understanding the underpinnings of face recognition (e.g., Bruce & Young, 1986; Burton, Bruce, & Johnston, 1990; Gobbini & Haxby, 2007; Haxby, Hoffman, & Gobbini, 2000, 2002; Hoffman & Haxby, 2000). The goal of the current research was to explore the relatively neglected intersection of social categorization and identity recognition in person perception (cf. Bruyer, Lafalize, & Distefano, 1991; Bruyer, Leclere, & Quinet, 2004; Clutterbuck & Johnston, 2004; Macrae, Quinn, Mason, & Quadflieg, 2005; Rossion, 2002) to elucidate the conditions under which perceivers respond to others according to their unique identities versus the social categories to which they belong.

Identification and Categorization in Person Construal

Although person perception and face recognition models differ significantly in their goals – explaining social categorization versus identity recognition – a common theme is that the operations underlying the extraction and use of categorical knowledge are independent from those underlying the extraction and use of identity-specific knowledge. Indeed, evidence for dissociations between face recognition and face classification comes from various sources, including behavioral experiments (e.g., Bruce, 1986; Bruce, Ellis, Gibling, & Young, 1987; Calder, Burton, Miller, Young, & Akamatsu, 2001; Campbell, Brooks, De Haan, & Roberts, 1996; Le Gal & Bruce, 2002; Young, McWeeny, Hay, & Ellis, 1986), patient studies (e.g., Humphreys, Donnelley, & Riddoch, 1993; Parry, Young, Saul, & Moss, 1991; Sergent & Villemure, 1989), and neuroimaging investigations (e.g., Dubois et al., 1999; Rossion, Schiltz, Robaye, Pirenne, & Crommelinck, 2001).

Other evidence, however, points to integrated processing of identity-specific and nonspecific information. Studies of selective attention, for example, suggest integrated processing of identity and sex (Baudouin, Sansone, & Tiberghien, 2000; Baudouin & Tiberghien, 2002; Ganel & Goshen-Gottstein, 2002; Goshen-Gottstein & Ganel, 2000), and
identity and emotional expression (D’Argembeau, Van der Linden, Comblain, & Etienne, 2003; Ganel & Goshen-Gottstein, 2004; Schweinberger & Soukup, 1998). In general, familiar (vs. unfamiliar) faces are categorized more quickly (or more accurately) by sex (Clutterbuck & Johnston, 2004; Rossion, 2002), race (Bryner et al., 2004), and age (Bryner et al., 1991). Given this evidence against the independence of category- and identity-specifying information, the compelling question is thus not whether categorization and identification represent distinct cognitive operations but whether and when one form of construal will come to dominate people’s responses to social targets.

In the face processing literature this question has yet to receive attention, but in social-cognitive accounts the answer is relatively straightforward. Categorization has long been regarded as the dominant form of person construal, supplanted by individuation only when motivation and capacity are sufficient (e.g., Fiske & Neuberg, 1990). The limitation of this approach, however, is its empirical focus on the construal of unfamiliar social targets. While methodologically expedient, this strategy neglects the fact that although unfamiliar targets can be construed according to their social category membership and other perceptually based dimensions (e.g., emotional expression), familiar targets can be construed not only according to these dimensions but also according to their identity, resulting in a wider array of potential behavioral responses to familiar than unfamiliar targets. Moreover, given the wealth of individuating information that we have available to us about the traits, attitudes, values, opinions, hobbies, and skills of familiar others—that is, familiarity via experience across multiple occasions and contexts—it certainly seems likely that for familiar targets, it should be more useful to rely on information that we know to be true of the target, rather than unverified guesses based on broad generalizations across a group of people.

In arguing for familiarity as a moderator of categorization versus identification, however, it is important to acknowledge that regardless of processing goal or outcome, person construal begins with perceptual processing—more specifically, the visual analysis of faces. Visual processing has a predictable trajectory over time from coarse to fine-grained aspects of the available perceptual inputs (Marr, 1982; Tarr & Cheng, 2003; cf. Schyns, Bonnar, & Gosselin, 2002), a fact that has obvious implications for person construal. Quite simply, before perceivers can recognize a target’s social category membership or unique identity and before the representations associated with these construals (e.g., stereotypes and biographical information) can be activated and exert top-down influence, the target’s face must first receive basic visual processing. Evidence confirms that face processing, like other forms of visual processing, begins with analysis of less complex aspects of faces such as features, before proceeding to more complex aspects such as configural relations among these features (e.g., Bentin, Allison, Puce, Perez, & McCarthy, 1996; Bentin & Golland, 2002; Bentin, Golland, Flevaris, Robertson, & Moscovitch, 2006; Ito, Thompson, & Cacioppo, 2004; Liu, Harris, & Kanwisher, 2002; Sagiv & Bentin, 2001).

The same coarse-to-fine processing trajectory is also likely to be evident for downstream consequences such as social categorization and identity recognition. Given that even a single feature can be sufficient to support categorization (Brown & Perrett, 1993; Burton, Bruce, & Dench, 1993; Cloutier & Macrae, 2007; Cloutier, Mason, & Macrae, 2005; Macrae & Martin, 2007; Martin & Macrae, 2007) but that configural information greatly facilitates identity recognition (Diamond & Carey, 1986; Leder & Bruce, 2000; Maurer, Le Grand, & Mondloch, 2002; Rhodes, Brake, & Atkinson, 1993; Searcy & Bartlett, 1996), a visual processing analysis would suggest that categorization should precede identification. Only once sufficient information has been extracted to support identification can familiarity exert its influence.

The Current Research

We conducted two experiments to examine the roles of target familiarity and processing time in determining responses to social targets. More specifically, we used an automatic priming paradigm to investigate whether and when participants would automatically respond to unfamiliar and familiar others according to identity versus social category. When prime and target stimuli are presented with a sufficiently short interval between them (< 250 ms; Neely, 1991), any processing that is initiated by the perception of the prime cannot be controlled by the perceiver before target onset and thus influences target processing, and any differences in responding to targets as a function of prime type or prime-target relationship provide insight into the nature of this automatic influence. The value of this approach is that it allows us to ask the question of whether the processes of interest (i.e., identity recognition and social categorization) occur, and not just how easily or quickly they can be carried out by the perceiver. Although ample research has demonstrated that the speed of social categorization varies with factors such as exemplar typicality (e.g., Blair, Judd, & Fallman, 2004; Livingston & Brewer, 2002; Maddox & Chase, 2004; Maddox & Gray, 2002), processing conditions (Cloutier & Macrae, 2007; Cloutier et al., 2005), and perceivers’ goals (Macrae et al., 2005), very few studies have examined the likelihood of automatic categorization at encoding (cf. Quinn & Macrae, 2005).

To examine the time course of processing, we manipulated the duration of prime exposure (100 or 150 ms, plus a mask), thereby varying the amount of processing taking place before the presentation of the target face. The choice of a 100-ms prime duration was based on evidence from event-related potential (ERP) studies of electrical activity produced by the brain in response to the early visual processing of faces. This research has identified an important response that occurs 145–150-ms post-stimulus (roughly equivalent to our 100-ms prime exposure + 50-ms mask) that has been linked to the structural encoding of faces (e.g., Bentin et al., 2006), including sensitivity to differences in the sex, age, and race of social targets, at least
perceptually1 (e.g., Ito & Urland, 2003; Mouchetant-Rostaing & Giard, 2003; Mouchetant-Rostaing, Giard, Bentin, Aguera, & Pernier, 2000), suggesting that this exposure duration should be sufficient to support category-based responding.

This exposure duration, however, should not be sufficient to support identity recognition. Sensitivity to mere feature differences is unlikely to support the configurational processing that bolsters identity recognition (Maurer et al., 2002), and evidence suggests that identity-discrimination accuracy (e.g., jeeps vs. other cars, Harrison Ford vs. other faces) peaks slightly later in processing than category-discrimination accuracy (e.g., faces vs. cars) (requiring 167 vs. 68 ms of exposure, respectively, to produce 95% accuracy; Grill-Spector & Kanwisher, 2005). We thus chose a 150-ms prime exposure + 50-ms mask to examine processing that could support identification but that still occurred within a temporal window suggesting automatic processing.

As in many investigations within the face processing literature (e.g., Ellis, Flude, Young, & Burton, 1996; Ellis, Young, & Flude, 1990; Ellis, Young, Flude, & Hay, 1987; Lavie, Ro, & Russell, 2003), we used fame as a proxy for familiarity. Although perceivers undoubtedly possess much richer representations of actual acquaintances, friends, and relations than they do of celebrities, their representations of celebrities certainly contain identity-related information in the form of name, occupation, and other individuating information (e.g., television and film roles, popular songs). Thus, although these representations are based on indirect knowledge, the information available in them is sufficient to support construal at both the level of identity and the level of social category.

We predicted that category-related processing would dominate responses earlier in the processing stream and that identity-related processing would exert an influence later, with different implications for unfamiliar and familiar faces. Specifically, we anticipated that earlier processing should yield the same products for unfamiliar and familiar faces (because of equivalent access to visually-derived categorical information and no access to identity-related information) but that later processing should yield different products for unfamiliar and familiar faces (because of differential access to identity-related information). With sufficient processing time, both unfamiliar and familiar faces should be construed at least crudely according to identity (e.g., “unfamiliar” vs. “Brad Pitt”), but these identity-based construals should differ in their propensity to activate identity-specific semantic or biographical knowledge that provide a useful alternative to category-based responding. As a result, for unfamiliar targets, category-based responding should emerge for both earlier and later responses because the category-relevant information extracted at the earlier time point would not be superseded by identity-relevant information. In contrast, for familiar targets, category-based responding should emerge for only earlier responses because the identity-based information extracted at the later time point should be sufficient to negate the influence of the category-based information.

### Experiment 1: The Time Course of Identity-Based Responding

In Experiment 1, we investigated whether identity-based responding would differ as a function of prime familiarity and processing time. Participants categorized by familiarity/fame2 a series of unfamiliar and familiar target faces that were each preceded by familiar or unfamiliar prime faces (presented for either 100 or 150 ms). We expected that participants would be faster to judge the familiarity of targets when they were preceded by primes that were similarly unfamiliar or familiar, but only in the 150-ms prime-duration condition. Given our analysis of face processing in terms of visual recognition and evidence elsewhere that early visual processing of faces is sensitive only to category-relevant facial features (e.g., Liu et al., 2002), we expected no priming effects to emerge in the 100-ms prime-duration condition. With only 150 ms of time (100-ms prime + 50-ms mask) between the onset of the prime and the target, participants should be unable to extract sufficient higher-order (e.g., configural) information from the prime to support either full-blown identification or recognition of familiarity/fame.

### Method

#### Participants and Design

Sixteen students (12 women and 4 men) from the University of Birmingham completed the experiment for £3 or course credit. The experiment had a 2 (prime familiarity: unfamiliar or familiar) × 2 (prime duration: 100 or 150 ms) × 2 (target status: congruent or incongruent) within-participants design.

#### Stimulus, Materials, and Procedure

Participants arrived at the laboratory individually, were greeted by a female experimenter, and seated facing the screen.

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1. This “N170 component” – a “spike” in electrical activity peaking approximately 170-ms post-stimulus onset – is believed to reflect an early structural encoding stage that is sensitive to feature differentiation between faces (Bentin et al., 1996) and within categories with which perceivers are expert (Tanaka & Curran, 2001), but not more complex processes. That is, it appears to reflect feature extraction and perceptual differentiation rather than classification of target into semantically meaningful categories – a basis for, but not interchangeable with, categorization (VanRullen & Thorpe, 2001).

2. Although “familiar/famous” versus “unfamiliar/nonfamous” judgments are by definition categorical, they can only be generated once the perceiver has recognized the target (i.e., they are not discernible from simple visual cues) and so reflect identity-based processing.
of a personal computer running MediaLab and DirectRT research software (Empirisoft Corporation, 2004). At the beginning of the session, participants learned that the goal of the experiment was to assess how readily people can make judgments about faces. Participants learned that their task was to judge, as quickly and accurately as possible, the familiarity of a series of faces where some of the faces would be photos of celebrities. They learned further that each trial would comprise a series of two pictures, and that they were to judge only the second picture. Each trial comprised a 500-ms fixation cross, a prime stimulus that appeared for 100 or 150 ms (varied randomly from trial to trial), a 50-ms mask, and a target that remained onscreen until participants made a response. The intertrial interval was 1,000 ms. The computer recorded the accuracy and latency of each response.

The stimuli were graphics files depicting color images of faces, standardized to 200 × 200 pixels and matched subjectively for luminance and contrast. The stimuli (both primes and targets) were photos of 40 famous women (e.g., Julia Roberts, Keira Knightley), 40 famous men (e.g., Bruce Willis, Tom Cruise), 40 nonfamous women, and 40 nonfamous men; 40 scrambled faces that could not be identified were included as primes to establish a baseline. This yielded a total of 200 trials (160 target, 40 baseline; 20 trials for each of the Prime Familiarity × Prime Duration × Prime-Target Status conditions). Pilot testing ensured that the famous faces were recognizable by the sample population, and efforts were made to equate the famous and nonfamous faces in terms of stimulus quality (e.g., resolution) as well as target face angle, target race (white), emotional expression (neutral to positive), and attractiveness. The order of presentation of the items was quasi-randomized to meet several constraints. First, across participants, each stimulus had an equal probability of appearing as a prime or a target (but never appeared as both a prime and a target). Second, each prime-target pair was constrained to be of the same sex (i.e., female prime-female target and male prime-male target), to minimize any disruption from social categorization to identity recognition. Third, each target appeared three times, once with each type of prime (i.e., familiarity-congruent, familiarity-incongruent, and baseline), and so acted as its own control for the prime familiarity and target status factors. Within and across participants, each type of prime-target pairing had an equal likelihood of appearing in the 100- and 150-ms prime-duration condition, providing some control for this factor. Finally, the response key mappings (i.e., familiar/famous – unfamiliar/nonfamous) were counterbalanced across participants. On completion of the task, participants were thanked for their assistance and the purpose of the experiment was explained.

The analysis yielded an unanticipated main effect of prime familiarity, $F(1, 15) = 5.46, p = .034$, such that participants were slower to judge the familiarity of faces that were preceded by familiar rather than unfamiliar primes ($Ms = 730$ and 700 ms, respectively). Interestingly, this effect was not moderated by prime duration, $F(1, 15) = 0.56, p = .47$, perhaps suggesting familiarity-based fluency effects very early in the construal process. There was also a main effect of target status, $F(1, 15) = 7.11, p = .018$, such that participants were faster to judge the familiarity of target faces that were preceded by congruent rather than incongruent primes ($Ms = 706$ vs. 724 ms, respectively).

This main effect, however, was subsumed within a Prime Duration × Target Status interaction, $F(1, 15) = 5.87, p = .028$. Interaction means are depicted in Figure 1. In

![Figure 1](image-url)
the 150-ms duration condition, participants were faster to respond to target faces when those faces were preceded by congruent rather than incongruent primes, \( t(1, 15) = 4.199, p = .001 \) (Ms = 699 and 734 ms, respectively). In the 100-ms duration condition, however, participants were no faster to respond to target faces when those faces were preceded by congruent rather than incongruent primes, \( t(1, 15) = 0.006, p = .95 \) (both Ms = 714 ms).

Thus, in support of our reasoning, processing time moderated the influence of identity-related processing such that participants were sensitive to prime-target familiarity congruence only when given sufficient processing time to extract prime identity. At the earliest stages of processing (i.e., 100-ms primes), the influence of familiarity was minimal and most likely attributable to the processing fluency of familiar faces rather than to any form of identity recognition. With increased duration (i.e., 150-ms primes), however, participants responded more quickly to target faces that were preceded by congruent than incongruent primes.5

**Experiment 2: The Time Course of Category-Based Responding**

In Experiment 2, we investigated whether category-based responding would also differ as a function of prime familiarity and processing time. Participants categorized by sex a series of unfamiliar target faces that were each preceded by familiar or unfamiliar prime faces (presented for either 100 or 150 ms). In the 100-ms prime condition, we expected sex-based priming in response to both unfamiliar and familiar primes, such that participants would be faster to categorize targets primed by same- versus opposite-sex primes. We assumed that similar processing would be undertaken on unfamiliar and familiar prime faces at this point in the processing stream on the basis of evidence that at this latency perceivers are sensitive to sex-denoting physical features (e.g., Liu et al., 2002; Mouchetant-Rostaing & Giard, 2003). In the 150-ms prime condition, in contrast, we expected that participants would be faster to categorize the sex of faces preceded by same- versus opposite-sex primes only when those primes were unfamiliar. At this point in the processing stream, perceivers should have enough information to recognize individual identity and social category information should be relatively less accessible for familiar primes, for whom identity information would be more relevant.

**Method**

**Participants and Design**

Nineteen students (15 women and 4 men) from Dartmouth College completed the experiment for course credit. The experiment had a 2 (prime familiarity: unfamiliar or familiar) \( \times \) 2 (prime duration: 100 or 150 ms) \( \times \) 2 (target status: congruent or incongruent) within-participants design.

**Stimulus Materials and Procedure**

The procedure was almost identical to that of Experiment 1, with the exceptions that the experiment was presented on a computer running PsyScope software (Cohen, MacWhinney, Flatt, & Provost, 1993) and that participants’ task was to categorize the target faces according to sex. The primes were the same photos of 40 famous women, 40 famous men, 40 nonfamous women, 40 nonfamous men, and 40 scrambled faces used in Experiment 1. The targets were 40 new nonfamous faces (20 each of women and men). This yielded a total of 200 trials (160 target and 40 baseline).

**Results and Discussion**

The data were trimmed using the procedures outlined in Experiment 1. Including trials on which errors were committed, this resulted in 6.67% of the data being excluded from the statistical analysis. The data were submitted to a 2 (prime familiarity: unfamiliar or familiar) \( \times \) 2 (prime duration: 100 or 150 ms) \( \times \) 2 (target status: congruent or incongruent) within-participants ANOVA.

The analysis yielded a main effect of target status, \( F(1, 18) = 15.79, p = .001 \), indicating that participants were faster to categorize the sex of target faces when those faces were preceded by same- versus opposite-sex primes (Ms = 563 and 588 ms, respectively). There was also a main effect of prime duration, \( F(1, 18) = 5.33, p = .03 \), such that participants were faster to respond in the 150- versus 100-ms prime-duration condition (Ms = 567 and 582 ms, respectively). These main effects, however, were subsumed within a Prime Familiarity \( \times \) Prime Duration \( \times \) Target Status interaction, \( F(1, 18) = 8.27, p = .01 \). Interaction means are depicted in Figure 2.

The data from the 150-ms prime-duration condition yielded a main effect of target status, \( F(1, 18) = 14.22, \)

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5 Interestingly, prime familiarity did not interact with prime-target congruence in the 150-ms prime-duration condition. We might have expected familiar primes to exert more influence than unfamiliar primes at this point, for at least two reasons. First, it seems intuitively obvious that recognizing the identity of a familiar face would activate more information than would recognizing that a face is unknown. It is unclear, however, how quickly after recognition the associated biographical information is activated, and it is possible that 200 ms of processing is insufficient. Second, it seems possible that participants would take longer to recognize a face as unfamiliar than familiar (on the assumption that selecting an “unfamiliar” response would require a more exhaustive memory search), and thus that unfamiliar primes would not receive sufficient processing within 200 ms to exert an influence on responses to targets. There is no evidence, however, that participants responded more slowly to unfamiliar than familiar targets, and there is no reason to expect that this pattern would have been different for primes.
Such that participants were faster to categorize the sex of faces preceded by same-sex versus opposite-sex primes ($M_s = 551$ vs. $584$ ms, respectively). This main effect, however, was qualified by a reliable Prime Familiarity × Target Status interaction, $F(1, 18) = 4.93$, $p = .039$. The pattern of means indicated again that participants were faster to respond to target faces when those faces were preceded by same- versus opposite-sex primes and the primes were unfamiliar, $p < .001$ ($M_s = 537$ and $590$ ms, respectively), but not when the primes were familiar, $p = .32$ ($M_s = 565$ and $578$ ms, respectively). The data from the 100-ms prime-duration condition, in contrast, yielded only a main effect of target status, $F(1, 18) = 7.40$, $p = .01$, such that participants were faster to respond to target faces when those faces were preceded by same- versus opposite-sex primes ($M_s = 571$ and $591$ ms, respectively).

Interestingly, the unfamiliar-prime effect was reliably smaller in the 100-ms prime-duration condition than in the 150-ms prime-duration condition ($M_s = 19$ vs. $53$ ms, respectively), $t(18) = 2.91$, $p = .009$. Based on evidence that the N170 is implicated in structural encoding but not more complex processing (Bentin et al., 1996), this difference suggests that the priming effect in the 100-ms prime-duration condition might reflect perceptual differentiation of stimuli according to female and male features, whereas the effect in the 150-ms prime-duration conditions might reflect more “meaningful” categorization of stimuli into female and male faces/categories.

Corroborating our predictions, familiarity, and processing time interacted in the current experiment to moderate social categorization. At the earliest stage of face construal, participants devoted similar processing to both unfamiliar and familiar faces, and classified them according to a simple perceptual dimension (in this case, sex). With additional exposure – but still within a time frame suggesting automatic processing – construal of unfamiliar and familiar faces diverged, with categorical priming emerging only for unfamiliar faces.

**General Discussion**

In two experiments, we investigated whether and when category- versus identity-based construal dominates perceivers’ responses to social targets. The findings confirmed our reasoning that person construal is subject to important temporal considerations, with the specificity of perceivers’ reactions reflecting the extent to which category-based and identity-cuing information can be extracted from faces at different points in the processing stream (Liu et al., 2002). Because of the characteristics of the visual processing system, different products of construal emerge over time, with categorization emerging more quickly than identification and with target familiarity exerting a significant influence later in the processing stream. Thus, when targets can be construed on the basis of either sex or identity (e.g., “male” or “George Clooney”), the duration of stimulus exposure determines the response outcomes. In particular, when faces are processed very briefly, the face processing system extracts information sufficient to support category-based responses. At longer stimulus durations, however, the system is capable of extracting identity-related information and neutralizing these category-based responses when sufficient identity-related information is available (i.e., for familiar targets). This temporal shift from categorical to identity-related information reflects the basic coarse-to-fine operational characteristics of the human visual system (Marr, 1982; Tarr & Cheng, 2003).

That familiar others trigger identity-based construal despite evidence that category-based responding is the least demanding option at all stages of the person perception process (Cloutier et al., 2005) suggests that models of face recognition would benefit from specifying when and how category and identity information interact during face processing (Calder & Young, 2005). This finding also has important implications for models of person perception. Not only does it suggest that the hypothesized early
advantage for category-based construal may be very limited temporally (disappearing within 200 ms of exposure), but it also challenges the assumption that perceivers avoid categorical thinking only when they are sufficiently motivated to do so. Stereotyping is assumed to be abandoned in favor of individuated impressions, for example, only when the operation of specific processing goals (e.g., outcome-dependence, accountability) encourages the generation of noncategorical responses (see Fiske & Neuberg, 1990). What the current research suggests, however, is that for familiar targets, identity-based responding may be an automatic and dominant product of the person perception process even in the absence of these processing goals (Tanaka, 2001; Tarr & Cheng, 2003). As such, categorical thinking (at least as conventionally defined) may not be implemented when perceivers interact with familiar others.

This is not to say identity-based responding will necessarily supersede other forms of responding to familiar others. We have demonstrated that perceivers shift from category- to identity-based responding for familiar others, but identification is not the only alternative to social categorization. Faces convey a wealth of socially relevant information beyond identity and social category in the form of emotional expression, gaze direction, and lip movement for speech. As Calder and Young (2005) note, an understanding of how this wide array of different characteristics is extracted from a single face is central to understanding face perception, and recent research has adopted a principal components analytic approach to determine the relationships among these characteristics. Of particular relevance to the current research, recent work has demonstrated distinct sets of principal components that code identity, expression, sex, identity and expression, expression and sex – but not identity and sex (Calder et al., 2001). Perhaps, then, identity competes with category but not expression in the race to dominate person construal.

Conclusion

One of the most important challenges facing social perceivers is how to understand others. Targets belong to numerous social categories and, for familiar targets, identity-based judgments provide another alternative for construal. In addressing the interplay of category- and identity-based responding in face perception, we demonstrated that target familiarity and processing time course modulate the products of person construal. Although both familiar and unfamiliar faces initially show evidence of automatic category activation, identity-based responses quickly and automatically supersede category activation for known targets. In this way, the temporal course of person construal, as with any form of visual processing, reflects a shift from less to more complex judgments – in this case, from category- to identity-based judgments.

This research represents just one attempt to understand the complex interplay of category- versus identity-based forms of person construal, and additional work is needed to clarify the processing mechanisms that underlie the use of person knowledge that can be gleaned from facial cues (Bruce & Young, 1986; Haxby et al., 2002) as well as from other forms of knowledge that may become activated and applied during later stages of person perception (Kunda, Davies, Adams, & Spencer, 2002; Kunda & Spencer, 2003). To fully understand the vagaries of person construal, it is necessary to consider how both early perceptual processes and downstream memorial operations shape people’s understanding of others.

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