# Uniformity: The effects of organizational attire on judgments and attributions 



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#### Abstract

Despite their prevalence in the marketplace, little empirical attention has been paid to how employee uniforms affect consumer reactions to service experiences. We propose that employee uniforms facilitate the shared categorization of employees and their organization in the mind of the customer, which affects many of the inferences that customers draw following service encounters. Study 1 shows that uniforms lead to greater attribution of responsibility to the company for employee behavior, especially following poor service. Studies 2 and 3 show that uniforms also lead to more assimilation of judgments across employees, increasing the impact of one employee's behavior on judgments of other employees of the same organization. Study 3 shows that employee uniforms lead to more extreme judgments of the company following service encounters. It also shows that bad (good) service from a uniformed employee makes competing companies look better (worse), indicating that uniforms can elicit contrast effects across companies. In sum, the mere presence of a uniform on an unsatisfactory service or retail employee can damage judgments of the organization and its employees and improve judgments of rival organizations compared to identical service from a nonuniformed employee. Managers seem unaware of these negative consequences. These same principles are likely to apply to a wide variety of uniformed services, including police, military, firefighters, and health-care providers.


## 1 | INTRODUCTION

Imagine you are picking up a pizza at Domino's. When you get to the front of the line, the employee serving you rings up the incorrect price, argues with you, and is rude and incompetent. What conclusions do you draw from this experience? Whose fault was the poor service? To what extent was the service encounter representative of the typical customer experience with employees of this company? Consumers may draw on contextual cues when making these inferences (Bitner, 1990). One cue is employee uniforms, which businesses employ to convey brand image and influence customer perceptions. Past literature commonly assumes that uniforms have a positive effect on
employee-consumer relations and supports it with anecdotal evidence (Barr, 2007; Joseph \& Alex, 1972; Rafaeli \& Pratt, 1993; Solomon, 1985). However, experimental tests of the assumed causal influence of uniforms on customers' service perceptions are lacking (Pounders, Babin, \& Close, 2015; Shao, Baker, \& Wagner, 2004).

Indeed, there are reasons to doubt that the influence of uniforms is always beneficial. We propose and test a more nuanced account, in which uniforms act as a categorization variable that makes employees and their company seem like a more unified, cohesive or "entitative" group, that is, a group that has the enduring nature of an entity (Campbell, 1958; Crawford, Sherman, \& Hamilton, 2002). Theoretically, their unified appearance should foster the

[^0]generalization of inferences from the behavior of one member of the group to the group in general. Uniforms also clearly distinguish the employees of one company from the employees of another, which may increase the likelihood of comparisons that give rise to contrast effects. If so, uniforms may increase the risk that poor service provided by a single employee taints (i) the evaluation of other employees and (ii) the evaluation of the company as a whole, while (iii) making the company's competitors look better. We first elaborate on the conceptual rationale for these predictions and subsequently test them in four experiments.

## 2 | THEORETICAL BACKGROUND

A primary goal behind marketing efforts is building the brand (Aaker, 1991, 2011; Keller, 2003). However, service encounters are relatively heterogeneous and inherently intangible, making it difficult to capture the many benefits of branding such as brand differentiation and brand loyalty (Berry, 2000; Krentler \& Guiltinan, 1984; McDonald, De Chernatony, \& Harris, 2001). Within this context, companies face the decision of whether or not to dress their employees in uniforms, which we define as an identifying outfit worn by members of a given profession. Managers typically believe that uniforms provide a net benefit to their organization and this belief is shared almost unanimously by theorists who have considered the topic (Pratt \& Rafaeli, 1997; Rafaeli \& Pratt, 1993; Solomon, 1985). However, empirical investigations of the effects of employee uniforms have been limited. Uniforms are recommended to address the challenge of service intangibility because they increase the salience of the brand and consistency of a service experience (McDonald et al., 2001; Solomon, 1985), and can communicate essential features of brand identity (Harquail, 2004; McCracken \& Roth, 1989) or enforce the corporate visual identity system (Melewar \& Saunders, 2000).

However, uniforms also increase the visual similarity of employees and make their membership in the organization more salient, both of which make uniform wearers seem more like members of a unified, coherent, or "entitative" group (Campbell, 1958; Hamilton, Sherman, \& Lickel, 1998). This yields a variety of predictions for how consumers may respond following a service experience with a uniformed versus nonuniformed employee. We focus on attribution, judgments of other employees, judgments of the company, and judgments of other companies.

## 2.1 | Attribution and group membership

In a classic article in the services area, Bitner (1990) found that consumers who experience service failures in organized, professional environments attribute less fault to the company and see the service failure as less likely to recur than consumers who experience service failures in a disorganized environment. Consistent with this observation, managers typically expect employee uniforms to similarly increase perceptions of the company's professionalism and thereby decrease the blame attributed to it for a service failure. However,
uniforms also promote a categorization process that makes employees seem more representative of their organization (Joseph \& Alex, 1972; Solomon, 1985). We therefore hypothesize that employee uniforms, which increase the extent to which individual employees and the overall company are included in mental representations of each other, lead to greater attribution to the company for the employee's behavior.

Hypothesis 1a Uniformed employees elicit greater attribution of responsibility to the company for a service encounter than nonuniformed employees.

When service encounters are positive, as they often are, companies will benefit from this attribution by receiving credit for the good work of their employees. However, when service encounters are negative, the same principle backfires and companies take additional blame for their employee's actions. Unfortunately, service quality may be deteriorating (Oliva \& Sterman, 2001) and the impact of negative actions generally exceeds the impact of positive actions (Baumeister, Bratslavsky, Finkenauer, \& Vohs, 2001). Negative experiences are less common and less expected and make people feel a loss of control, hence, they attract more attention, need more explanation, and trigger more causal reasoning (Bitner, 1990; Bohner, Bless, Schwarz, \& Strack, 1988; Hui \& Toffoli, 2002; Weiner, 1985; for a review, see Ross \& Fletcher, 1985). Increased causal reasoning, in turn, attenuates dispositional attributions and increases attributions to contextual factors (Forgas, 1998). Hence, the impact of uniforms on attributions of responsibility to companies is likely to be more pronounced after negative than positive service encounters.

Hypothesis 1b The influence of uniforms on attributions of responsibility to the company is more pronounced for negative than for positive service encounters.

### 2.2 Assimilation and contrast across employees

Categorization theories provide a nuanced framework for predicting how one employee's behavior affects perceptions of their coworkers and how this effect may depend on whether or not employees wear uniforms. According to the inclusion/exclusion model (Bless \& Schwarz, 2010; Schwarz \& Bless, 1992a), the same input-e.g., a poor service experience-can result in assimilation or contrast effects depending on how it is used in forming representations of a target and a standard. If the poor service experience is used in forming a representation of the company and its employees, it results in a representation that includes unfavorable information and hence unfavorable evaluations of the target (an assimilation effect). If the same experience is used in forming a standard, it results in a low standard relative to which other service episodes, employees, or competing companies are evaluated more favorably (a contrast effect). Hence, the same poor service experience with a particular employee can hurt or benefit judgments of other employees and the company, depending on whether the specific experience is used
in forming a representation of the target or a representation of the standard against which the target is evaluated.

One of the many variables that influence information use (for a review, see Bless \& Schwarz, 2010) is the overlap of attributes between the specific instance and the target of judgment. The more a specific actor seems to resemble other members of his or her group, the stronger is the influence of the actor's behavior on inferences about the group in general and other members within it (Hamilton, Sherman, \& Castelli, 2002). These lateral assimilation effects are particularly strong when little individuating information is known about other category members (Bless \& Schwarz, 2010; Levin \& Levin, 2000; Wänke, Bless, \& Schwarz, 1998, 1999).

Thus, we expect that uniforms have multiple effects that together result in assimilation effects across employees. Customers often have little individuating information about service employees and uniforms further homogenize them (Joseph \& Alex, 1972), emphasize their role as representatives of their company (Rafaeli \& Pratt, 1993; Solomon, 1985), and make them seem like an entitative group (Morewedge, Chandler, Smith, Schwarz, \& Schooler, 2013). Entitative groups, in turn, promote an assumption of similarity across many dimensions (Dasgupta, Banaji, \& Abelson, 1999). Entitative groups also promote a sense of enduring stability across time (Sani et al., 2007). Hence, uniforms are expected to promote assimilation effects across employees, such that one employee's negative (positive) behavior also has a negative (positive) influence on evaluations of all other employees.

Hypothesis 2 Uniformed employees elicit greater assimilation of judgments across employees within a company than nonuniformed employees.

## 2.3 | Assimilation and contrast in company judgments

As discussed, the same information can elicit assimilation or contrast effects, depending on whether it is used in constructing a mental representation of the target (resulting in assimilation effects) or of the standard against which the target is evaluated (resulting in contrast effect; Bless \& Schwarz, 2010; Schwarz \& Bless, 1992a). Uniforms make it more likely that employees are included in representations formed of the company (Joseph \& Alex, 1972; Rafaeli \& Pratt, 1993; Solomon, 1985), which is likely to magnify assimilation effects on evaluations of the company. In addition, uniforms are expected to make employees seem like a more homogenous group, which should yield stronger judgments (Dasgupta et al., 1999; Smith, Faro, \& Burson, 2013), consistent with the lower within-category variance implied by homogeneity of the group.

Hypothesis 3 Uniformed employees have more impact on judgments of the company than nonuniformed employees.

When a service episode is distinctly associated with a specific company, it is less likely to be used in forming representations of other
companies. Instead, the service episode is likely to serve as a standard against which other companies are evaluated (Bless \& Schwarz, 2010). Although there is little research on this topic (cf. Allen, Brady, Robinson, \& Voorhees, 2015), variables like employee uniforms that promote categorization among group members may give rise to contrast effects across groups, reflecting that other groups and group members are evaluated relative to the standard provided by the salient group (Schwarz \& Bless, 1992a). Hence, poor service from a uniformed employee may not only make the employee's company look worse (Hypothesis 3), but may also make the company's competitors look better.

Hypothesis 4 Uniformed employees promote a contrast between the services of different companies.

We test these hypotheses in three studies. Study 1 focuses on attribution, testing H 1 a (in study 1 a and 1 b ) and H 1 b (in study 1b). Study 2 examines how employee uniforms influence the transfer of judgments from one employee to their colleagues, testing H2. Study 3 further supports H 2 , and also tests H 3 and H 4 . All studies involve a manipulation where employees are either presented in uniform or not in uniform, while holding other aspects of the service experience constant. All studies besides study 1a also manipulate whether the service encounter was positive or negative. See Table 1 for a summary of results. Sample sizes were determined using G*power3.1 (Faul, Erdfelder, Buchner, \& Lang, 2009) based on a power analysis of past research on attribution and assimilation effects in judgment (Bitner, 1990; Dasgupta et al., 1999). All studies achieved power between 0.6 and 0.99.

## 3 | STUDY 1: IT'S THE COMPANY'S FAULT: ATTRIBUTIONS AFTER SERVICE FAILURE

The experiments in study 1 test the effect of employee uniforms on attribution of responsibility for a service encounter. We expect that employee uniforms will facilitate the inclusion of an employee's service in the mental representation formed of the company and thereby increase attribution to the company. We test this hypothesis (H1a) in two experiments, each merely varying whether or not the employees wear uniforms. Study 1b further tests H1b by varying the valence of the service encounter.

## 3.1 | Study 1A

### 3.1.1 | Method

Seventy-four participants from a large Midwestern USA university business school completed this study in exchange for course credit. Sample size was determined based on past attributional research which showed medium to large effect sizes, with Bitner (1990) showing an average effect size of $d=0.42$ for the attribution measures in service encounters, Hui and Taffoli (2002) showing an average effect size of $d=0.53$ for their attribution measures in service encounters,
TABLE 1 Summary of key results of employee uniforms

|  | Attribution to company for negative service (H1a) | Attribution to company interaction with valence (H1b) | Transfer of judgments across employees (H2) | Impact on judgment of focal company (H3) | Impact on judgment of other company (H4) |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Study 1a | $t(72)=2.59, p=.01, d=0.60$ |  |  |  |  |
| Study 1b | $F(1,214)=8.46, p=.004, \eta_{p}^{2}=0.038$ | $F(1,214)=3.87, p=.05, \eta_{p}^{2}=0.018$ |  |  |  |
| Study 2 |  |  | $\begin{aligned} & F(1,130)=4.37, p=.04 \\ & \eta_{p}^{2}=0.039 \end{aligned}$ |  |  |
| Study 3 |  |  | $\begin{aligned} & F(1,198)=3.28, p=.07, \\ & \eta_{p}^{2}=0.016 \end{aligned}$ | $\begin{aligned} & F(1,198)=11.44, p<.001, \\ & \eta_{p}^{2}=0.055 \end{aligned}$ | $\begin{aligned} & F(1,198)=5.78, p=.02 \\ & \eta_{p}^{2}=0.028 \end{aligned}$ |
| Meta-analysis | $\begin{aligned} & d=0.37(95 \% \mathrm{Cl}[.13,0.60]), z=3.07, \\ & p=.002 \end{aligned}$ |  | $\begin{aligned} & d=0.34(95 \% \mathrm{Cl}[.09,0.58]), \\ & z=2.71, p=.007 \end{aligned}$ |  |  |

and Morewedge et al., 2013 showing an effect size of $\eta_{p}^{2}=0.14$ for their particularly relevant research on attribution of characteristics to uniformed versus nonuniformed employees. Based on these effect sizes trending slightly above medium, we used G*power3.1 (Faul et al., 2009) to determine a sample size for an estimated effect size of $d=0.6$, and a desired power of 0.80 , with the result being a desired sample of $n=72$.

Participants imagined themselves experiencing a poor service encounter with a business school staff member (see Appendix for methodological detail). Specifically, they were told to imagine their study group being removed from a study room at their business school because they did not have it officially reserved, despite the fact that the room would otherwise be empty. Researchers commonly use simulated experiences of this type to study the effects of contextual cues on consumer behavior (Chebat, Sirgy, \& St-James, 2006; Pounders et al., 2015). Following the scenario, they were shown pictures of three staff members, with the staff member who asked them to leave circled. Three pictures were shown to make the scenario consistent with a real service environment where multiple employees are often observed. Participants were randomly assigned to a uniform condition in which all staff members were pictured wearing identical "Staff" polo shirts or a control condition in which they were pictured in nonuniform shirts. The two conditions were otherwise identical.

We measured attribution for the service experience in a typical way by instructing participants to allocate 100 points across four causes of "the experience with the staff-member," with higher points indicating more responsibility (McArthur, 1972). The possible causes were the staff member himself, the study group, the business school, and other circumstances. We had no predictions about attributions to the staff member, the study group, or the circumstances, but expected they may vary across conditions because of the fixed-sum nature of this common attribution measure (i.e., an increase in points to one cause is necessarily mirrored by a decrease in points to other causes). Participants also evaluated the employee on 16 positive traits (e.g., polite, pleasant) and 16 negative traits (e.g., ignorant, rude; Haslam, Bain, Douge, Lee, \& Bastian, 2005). Negative traits were reverse coded and collapsed with positive traits into a single evaluative measure, with larger numbers indicating more favorable trait ascriptions ( $a=0.84$ ).

### 3.1.2 | Results and discussion

As predicted in H1a, participants attributed more responsibility for the poor service to the business school when it came from a uniformed employee ( $M=34.41$, $S D=22.76$ ) than when it came from a nonuniformed employee $(M=21.88, S D=18.83 ; t(72)=2.59$, $p=.01, d=0.60)$. They also attributed less responsibility to the employee himself when he wore a uniform $(M=25.15, S D=18.11)$ than when he did not $(M=36.50, S D=20.70 ; t(72)=2.49, p=.02$, $d=0.58$ ). The employee's attire did not affect the other attributions ( $t$ 's < 1), and did not affect the employee's ratings on the trait measure $\left(M_{\text {uniform }}=3.61, S D=0.47 ; M_{\text {non-uniform }}=3.42, S D=0.67\right.$; $F(1,53)=1.32, p=.26$; note that 19 participants did not complete this scale due to a technical malfunction).

## 3.2 | Study 1B

Study 1b provides a conceptual replication of the negative service encounter used in study 1a and extends investigation by adding a positive service encounter, thus addressing H1b. We chose to increase the power to 0.95 , which produced a desired sample size of $n=210$, based on expected $f=0.25$. In addition, we address a possible ambiguity of study 1a-one may wonder whether the observed influence of uniforms emerged because uniforms make the employee's inclusion in the company more salient as we propose, or because perceivers assume that a company that requires employees to wear uniforms takes more control of employee behavior (Baker, Grewal, \& Parasuraman, 1994; Meyer \& Rowan, 1983; Rafaeli \& Pratt, 1993). The latter possibility seems unlikely because the scenario in study 1a (and all other studies) purposefully involved a company that participants know dresses their employees in uniforms. Study 1b sheds further light on this distinction by subtly reminding participants in the nonuniform condition that the employees generally wear uniforms.

### 3.2.1 | Method

Two-hundred and nineteen North American adult participants from Amazon Mechanical Turk (Paolacci \& Chandler, 2014) completed this study in exchange for monetary payment. Participants were asked to imagine picking up a pizza at Domino's, a wellknown North American pizza chain. Participants were randomly assigned to read about either a poor service experience (featuring a delayed pizza, an error with the price, and an unapologetic employee) or a good service experience (featuring on-time pizza, an unexpected discount, and an extremely helpful employee). They saw a picture of three employees either wearing uniforms or nonuniform collared shirts, with the employee from the scenario circled. In the nonuniform condition, there was a Domino's logo next to the pictures to control for exposure to the corporate logo, and participants were told that the employees are pictured without their usual uniforms, thus reminding them that the company does require employees to wear uniforms.

Participants evaluated the employee on four items (competent, warm, effective, kind; $\alpha=.98$ ) that were collapsed into a single measure of favorability. As in study 1a, participants indicated their attribution for the cause of their experience with the circled employee by allocating 100 points across four causes: the employee, "me," Domino's, and the circumstances.

### 3.2.2 | Results and discussion

A 2 (service valence) $\times 2$ (attire) ANOVA revealed that participants assigned to the good service experience rated the employee more favorably ( $M=4.24, S D=1.03$ ) than participants assigned to the
poor service experience ( $M=-2.77, S D=1.95, \eta_{p}^{2}=0.84$ ). There was no significant main effect of attire and no significant interaction between uniform and valence (both F's < 1).

The same ANOVA with attribution toward Domino's as the dependent variable revealed a significant main effect of attire $\left(F(1,214)=4.61, p=.03, \eta_{p}^{2}=0.021\right)$, no main effect of valence $(F(1,214)<1)$, and a significant interaction $(F(1,214)=3.87, p=.05$, $\left.\eta_{p}^{2}=0.018\right)$. This interaction was diagnosed with simple effect contrasts within valences. After poor service, attribution to Domino's was higher when employees wore uniforms ( $M=23.96, S D=19.34$ ) than when they $\operatorname{did} \operatorname{not}(M=14.56, S D=14.95 ; F(1,214)=8.46$, $p=.004, \eta_{p}^{2}=0.038$ ). This effect was nonsignificant for good service ( $M_{\text {uniform }}=18.36, S D=14.89 ; M_{\text {non-uniform }}=17.95, S D=17.8$; $F(1,214)<1) . H 1$ a and $H 1 b$ are supported.

We also observed a main effect of attire on attribution to the circumstances $\left(F(1,214)=8.69, p=.004, \eta_{p}^{2}=0.039\right)$. When employees wore uniforms, there was less attribution to the circumstances ( $M=20.08, S D=15.72$ ) than when employees did not wear uniforms ( $M=27.48, S D=23.07$ ). Although there was no significant interaction, in an exploratory analysis we replicated the simple contrasts within valences for this variable and found again that the effect was significant after poor service ( $M_{\text {uniform }}=23.6, S D=17.51 ; M_{\text {non-uniform }}=34.78$, $\left.S D=21.71 ; F(1,214)=9.41, p=.002, \eta_{p}^{2}=0.042\right)$, but not after good service $\left(M_{\text {uniform }}=16.43, S D=12.78 ; M_{\text {non-uniform }}=20.45, S D=22.32\right.$; $F(1,214)=1.2, p=.27)$. Attire did not affect attributions to either the employee or "me" within either valence (all F's < 1).

Across the two experiments of study 1, we find that uniforms influence consumers' attributions of responsibility for a service encounter. As predicted, the company is seen to play a larger role in determining the outcome of the service encounter when employees are uniformed than when they are not (H1; studies 1a and 1b).

This supports the more general proposition that employee uniforms facilitate a categorization process that makes service encounters and service employees more likely to be included in the mental representation formed of the company. In doing so, it also reveals that employee uniforms carry negative consequences following poor service. Importantly, this effect is driven by the visual appearance of employees, not by perceivers' knowledge about whether the company generally requires employees to wear uniforms (study 1b)

In both study 1a and study 1b we find that company attributions for poor service increase in the presence of employee uniforms. Note, however, that the attribution measure used requires the allocation of 100 points across different sources, which necessarily reduces the points allocated to other salient factors, whether they be attributions toward the employee (study 1a) or the circumstances (study 1b). Study 1b also suggests that the influence of uniforms on attribution may be stronger for poor than for good service (H1b). This is consistent with a large literature emphasizing that negative information is more influential than positive information on a large variety of tasks (for a review see Baumeister et al., 2001), including attribution judgments (Weiner, 1985).

## 4 | STUDY 2: THEY'RE ALL THE SAME: ASSIMILATION ACROSS SERVICE ENCOUNTERS

Study 1 showed that service from uniformed employees is more strongly attributed to the company than identical service from nonuniformed employees. This supports the more general proposition that service branding variables such as employee uniforms can facilitate the joint categorization of service employees and their company in the mind of the consumer. We now turn to another potential consequence of this categorization process: the generalization of judgments across members of the same category, in this case, different service encounters as well as different employees of the same company. Based on the results of study 1 and past research on entitativity increasing a perception of enduring stability (Sani et al., 2007), we may further expect that consumers who had good (poor) service are more likely to assume that future service will also be good (poor) when the employees are uniformed than when they are not. Moreover, consumers are likely to perceive uniformed employees as homogenous members of the company whose uniform they wear (Solomon, 1985). This attenuates the perception of differences between employees of the same company, further increasing the expectation that service quality will be perceived as similar across different service encounters. We test this prediction by assessing the impact of an initial poor versus good service experience on consumers' perception of a subsequent, ambiguous (i.e., neither clearly positive nor negative) service encounter with a different employee of the same company. H 2 predicts that uniforms will increase the extent that the performance of the first employee colors judgments of their colleagues, for the reasons discussed above.

## 4.1 | Method

One hundred and thirty-four participants from a large Midwestern U.S.A. university were randomly assigned to read about and picture themselves in a good or poor service experience. Sample size was determined based on past research on assimilation and contrast effects, which often shows large effect sizes-the average effect size from related tests in Schwarz and Bless (1992b) is $d=0.8$, and similarly large effects are found in the other papers reviewed by Schwarz and Bless (1992a). We used G*power3.1 (Faul et al., 2009) to determine a sample size for an estimated effect size of $f=0.3$, and a desired power of 0.90 , with the result being $n=119$.

The poor service experience was identical to the scenario from study 1a. The good service experience used the same story setup, except that a helpful staff member volunteers to move some reservations around so the group can stay in the study room, which creates some extra work for the staff member and delays his dinner break. As before, participants were shown pictures of staff members either wearing uniforms or not, with the staff member from the scenario circled. Participants then read a second scenario with ambiguous service quality, where a staff member successfully fixes a classroom computer
problem after some difficulty. Participants saw the same pictures of the staff members that they viewed following the first scenario, but with a different staff member circled. Thus, as would be the case for most companies, if employees wore uniforms in the first scenario, they also wore uniforms in the second scenario. Following each scenario, participants rated the extent to which they believed the staff member in the interaction was competent, warm, effective, and kind on 11point scales ( $-5=$ definitely no, $+5=$ definitely yes; $\alpha$ 's $=0.88$ and 0.75 for the first and second scenario, respectively).

## 4.2 | Results and discussion

### 4.2.1 | Manipulation check

Participants rated the traits of the employee less favorably in the poor service scenario ( $M=-0.56, S D=1.67$ ) than in the good service scenario ( $M=3.82, S D=1.2 ; F(1,130)=300.9, p<.001, \eta_{p}^{2}=0.70$ ), indicating that the manipulation worked as intended. Trait judgments did not significantly depend on whether he wore a uniform $(M=1.78, S D=2.63)$ or $\operatorname{not}(M=1.34, S D=2.64 ; F(1,130)=2.28$, $p=.13)$ and there was no significant interaction between attire and service valence ( $F<1$ ).

### 4.2.2 | Evaluations of second employee

Turning to the central research question, an ANOVA revealed a significant interaction between the valence of the prior experience and employee attire on evaluations of the second employee, who had provided an ambiguous service experience $(F(1,130)=4.37, p=.04$, $\left.\eta_{p}^{2}=0.039\right)$. We diagnosed the interaction using simple effect contrasts within attire conditions. In the nonuniform condition, judgments of the employee in the ambiguous second service encounter were unaffected by whether the experience with the first employee was good ( $M=2.24, S D=0.99$ ) or poor ( $M=2.31, S D=1.13 ; F(1$, 130 ) < 1). In contrast, when employees wore uniforms, participants rated the employee in the ambiguous second interaction more positively when their preceding service encounter with their colleague was good ( $M=3.22, S D=1.29$ ) rather than poor ( $M=2.45, S D=1.24$; $\left.F(1,130)=7.31, p=.008 ; \eta_{p}^{2}=0.053\right)$. This supports H 2 .

### 4.2.3 | Discussion

In sum, participants perceived the ambiguous service provided by a uniformed employee more positively when their colleague had previously provided good rather than poor service. Such assimilation was not observed when the employees did not wear uniforms. H2 is supported. These findings highlight the tendency of uniforms to increase the stakes of a single service encounter: If a company can successfully enforce good service, uniforms facilitate the perception of good service in the many subsequent occasions where service is
of ambiguous quality. Thus, uniforms have effects on judgments that seem to remain or even increase over multiple experiences with a service. Study 3 replicates this finding and illustrates two additional consequences of the categorization process facilitated by uniforms on judgments of companies.

## 5 | STUDY 3: THE COMPETITION IS BETTER: CONTRAST ACROSS COMPANIES

So far, the results show that uniforms make the actions of employees seem more representative of their company (study 1) and of other employees within that company (study 2 ). The categorization process exemplified by these findings also suggests that uniforms may increase the extent to which an experience with one employee affects judgments of the company (H3).

In addition, we also investigate whether uniforms increase acrossbrand differentiation (Matta \& Folkes, 2005; Solomon, 1985), that is, the likelihood of contrast between a company and its competitors ( H 4 ). This possibility follows from the inclusion/exclusion model, but has been mostly untested empirically. Just as identical uniforms are a cue that invites inclusion within the same category, they may also be a distinctiveness cue that invites contrast between categories. Companies that seem homogenous or unified possess clear category boundaries (Rothbart \& Park, 2004), and therefore may serve as more meaningful standards of comparison for other companies. Consequently, service with a uniformed employee may be more likely to serve as a reference point against which a competitor is evaluated. Study 3 tests both of these predictions (H3 \& $\mathrm{H} 4)$, provides evidence that these effects occur because uniforms mark employees as a unified, entitative group (i.e., the company), and also replicates the assimilation results observed in study $2(\mathrm{H} 2)$.

## 5.1 | Method

Two-hundred and six North American adults recruited from Amazon Mechanical Turk completed this experiment in exchange for cash payment. Sample size was determined based on an estimated medium effect size (based on study 2 , which showed an effect size between small and medium, and past research which shows many large effect sizes, as discussed). We used G*power3.1 (Faul et al., 2009) to determine a sample size for an estimated effect size of $f=0.25$, and a desired power of 0.95 , with the result being $n=210$.

As in study 1b, participants imagined themselves in a scenario where they are picking up pizza at Domino's and received either good or poor service. Participants saw pictures of three employees that were on duty that day, with the employee from their service encounter circled. The employees in the picture either wore Domino's uniforms or nonuniform collared shirts. In the nonuniform condition, there was a Domino's logo next to the pictures to control for exposure to the corporate logo (see Appendix for methodological detail). Participants rated the focal employee on an 11-point scale ( $-5=$ very bad, $+5=$ very good). This study employed
single-item measures because of the multitude of judgment targets as well as the findings of previous studies showing homogenous effects across different measurement items (e.g., warmth and competence).

Participants then imagined themselves picking up a pizza as part of a second ambiguous service encounter. This second scenario either took place at the same Domino's location or at a pizza place named Marco's Pizza. Participants again saw pictures of three employees that were working that day, with the focal employee from the scenario circled. In the Domino's condition, the employees, their attire, and their photos were identical to those in the first scenario except a different employee was circled. In the Marco's Pizza condition, the three employees were wearing shirts with Marco's Pizza logos on them (see Appendix for methodological detail). Participants then rated the employee and the company from the second scenario on 11-point scales ( $-5=$ very bad, $+5=$ very good). Thus, participants were randomly assigned to a 2 (valence of first interaction: good or poor) $\times 2$ (attire of Domino's employees: uniform or not) $\times 2$ (location of second interaction: same company or competitor). Finally, all participants again viewed the three Domino's employees and rated their entitativity (Bartels \& Burnett, 2011) by indicating the extent to which they see the collection of employees as a tight group ( $-3=$ individual people with distinct identities, $+3=a$ tight group with a single identity).

## 5.2 | Results

### 5.2.1 | Manipulation checks

The first scenario was at Domino's and followed a 2 (attire: uniform or nonuniform) $\times 2$ (service valence: good or poor) design. As intended, the poor service experience produced more negative judgments of the employee ( $M=-2.73, S D=2.16$ ) than the good service experience ( $M=4.07, S D=1.52 ; F(1,202)=704.84$, $p<.001, \eta_{p}^{2}=0.777$ ). Unlike studies 1 and 2 , ratings of this employee also depended on whether he wore a uniform ( $M=0.96, S D=3.95$ ) or did $\operatorname{not}\left(M=0.49, S D=3.81 ; F(1,202)=5.52, p=.02, \eta_{p}^{2}=0.027\right)$. We discuss this finding in detail in the general discussion. There was no significant interaction between attire and valence ( $F(1$, 202) = 1.66, $p=.2$ ). In addition, the uniformed Domino's employees were seen as a more entitative group ( $M=0.61, S D=1.22$ ) than the nonuniformed employees $(M=-0.27, S D=1.59 ; F(1$, 199) $\left.=19.26, p<.001, \eta_{p}^{2}=0.088\right)$.

### 5.2.2 | Evaluation of employees

Our theoretical rationale predicts that the quality of the initial service encounter results in assimilation of judgments for employees within the same company, but in contrasting judgments for competing companies. Both effects should be pronounced when the employees wear uniforms, and weak or absent when the employees are
not uniformed. A 2 (valence of first service encounter) $\times 2$ (attire of Domino's employees) $\times 2$ (second service encounter at same or different company) between-participants ANOVA revealed a significant three-way interaction that is consistent with these predictions ( $F(1,198)=4.09, p=.04, \eta_{p}^{2}=0.02$ ).

Participants' evaluations of the Domino's employee involved in the second, ambiguous service encounter replicated the findings of study 2 in support of H 2 . When employees did not wear uniforms, evaluations of the second Domino's employee did not depend on whether the initial service encounter with a different employee was $\operatorname{good}(M=0.85, S D=1.87)$ or poor ( $M=0.33, S D=2.18 ; F(1,198)<1$ ). However, when employees wore uniforms, participants judged the second Domino's employee more favorably when the first employee's service was good ( $M=1.85, S D=1.61$ ) than when it was poor ( $\left.M=-0.04, S D=1.66 ; F(1,198)=12.75, p<.001 ; \eta_{p}^{2}=0.06\right)$. This pattern is reflected in a marginally significant simple interaction between valence of the first service experience and the attire of Domino's employees ( $F\left(1,198\right.$ ) $=3.28, p=.07, \eta_{p}^{2}=0.016$ ), which qualifies a simple main effect of valence of the first experience ( $F(1$, 198) $\left.=10.00, p<.001, \eta_{p}^{2}=0.048\right)$.

Neither the attire nor the valence of the experience with the Domino's employee had an effect on participants' evaluations of employees at Marco's when the second service encounter occurred
at this rival company ( $F<1.1$ ). That the initial service experience only influenced evaluations of Domino's employees is also reflected in a significant two-way interaction between company and valence of the first service encounter $\left(F(1,198)=7.63, p=.006, \eta_{p}^{2}=0.037\right)$. There were no other significant main effects or interactions.

### 5.2.3 | Evaluation of companies

Our rationale further predicts that the quality of the initial service encounter at Domino's results in assimilation effects on judgments of the company (Domino's), but contrast effects on judgments of its competitor (Marco's). Both should be more pronounced when employees are uniformed. As shown in Figure 1, this was the case ( $F(1$, 198) $=16.74, p<.001, \eta_{p}^{2}=0.078$, for the three-way interaction involving these variables).

Not surprisingly, Domino's was evaluated more positively when the initial service experience was good rather than poor $\left(F(1,198)=84.75, p<.001, \eta_{p}^{2}=0.3\right)$. More interestingly, this em-ployee-to-company assimilation was stronger when employees wore uniforms $\left(F(1,198)=11.44, p<.001, \eta_{p}^{2}=0.055\right.$, for the simple interaction). Specifically, participants rated Domino's higher after good service ( $M=1.54, S D=2.02$ ) than after poor service



FIGURE 1 Assimilation and contrast on company judgments. Employee uniforms enhance assimilation effects for judgments of a company, where good (bad) service from one employee makes their company seem good (bad) to a greater degree (Panel A). Uniforms also produce contrast effects across companies, where good (bad) service from one company makes other companies seem worse (better) (Panel B)
$\left(M=-0.77, S D=1.97, F(1,198)=16.52, p<.001, \eta_{p}^{2}=0.077\right.$, for the simple effect) and this difference was exacerbated when employees wore uniforms ( $M_{\text {good }}=3.19, S D=1.36, M_{\text {poor }}=-1.58$, $S D=2.45, F(1,198)=81.80, p<.001, \eta_{p}^{2}=0.292$, for the simple effect). H3 is supported.

Also as predicted, Marco's benefitted from poor service at Domino's, but only when Domino's employees were uniformed. When Domino's employees did not wear uniforms, the valence of the service encounter at Domino's did not influence perceptions of Marco's ( $F<1$ ). However, when Domino's employees wore uniforms, participants contrasted their experience at Marco's with their initial experience at Domino's, leading Marco's to be judged more favorably when Domino's had provided poor service ( $M=2.41, S D=1.34$ ) than when it had provided good service $(M=0.65, S D=2.24 ; F(1$, 198) $\left.=11.09, p<.001, \eta_{p}^{2}=0.053\right)$. This supports H4. This pattern is reflected in a significant simple interaction between valence of the first service experience and attire $(F(1,198)=5.78, p=.02$, $\left.\eta_{p}^{2}=0.028\right)$, which qualified a simple effect of valence of the first service experience $\left(F(1,198)=5.78, p=.02, \eta_{p}^{2}=0.037\right)$.

Next, we turn to a mediation analysis investigating whether these effects are driven by uniforms making employees and their company a more entitative group or category. The categorization process model is supported by a bootstrapping mediation analysis of the indirect effect of employee attire on the absolute value of judgments of the company, mediated by entitativity, and moderated by the company being judged (i.e., Process model 15, Hayes, 2013). Results showed that the bias corrected and adjusted $95 \%$ confidence interval did not contain zero for the judgments of Domino's [-0.68 to -0.06] or judgments of Marco's [.06-0.64], indicating significant mediation for both company judgments (Hayes, 2013). Uniforms lead to more extreme assimilation effects on judgments of Domino's, and more extreme contrast effects on judgments of Marco's, at least in part because they categorize the employees together into a unified group.

### 5.2.4 | Discussion

These findings show that when an employee wears a uniform, the quality of a service encounter has a greater impact on perceptions of other uniformed employees of the same company and on perceptions of the company overall. The company benefits from employee uniforms when the service is good, but suffers from employee uniforms when the service is poor. Going beyond these effects on perceptions of the focal company, employee uniforms increase the likelihood that the company serves as a distinct standard of comparison against which competitors are evaluated. Hence, poor service from a uniformed employee not only hurts perceptions of their company but also improves perceptions of its competitor; conversely, good service from a uniformed employee improves perceptions of the company and hurts perceptions of its competitor. We next explore whether service managers are aware of these negative consequences of employee uniforms in environments with poor service.

## 5.3 | Service managers' beliefs about employee uniforms following service failures

A primary implication of this research for service managers is that employee uniforms have a variety of positive consequences following good service, but a variety of negative consequences following poor service. Do service managers benefit from this knowledge, or are they already aware that uniforms are inadvisable in poor service environments? On the one hand, managers may understand that mental categorization can be affected by subtle cues such as employee uniforms. On the other hand, uniforms are quite common in consumer environments, and the small amount of extant theorizing suggests primarily positive consequences of employee uniforms (e.g., Barr, 2007; Rafaeli \& Pratt, 1993). A survey was administered to service managers to explore their perceptions of employee uniforms in poor service environments to address this question.

A convenience sample of twenty-eight service managers completed a survey designed to measure their opinion about the consequences of several variables under their control, including employee uniforms, in an environment with poor service. We focused on managers in two industries with high customer-contact (Kellogg \& Chase, 1995), food service and university support staff, to match the scenarios used in our studies. Managers were approached at their companies by research assistants blind to the hypotheses and were asked if they would be willing to complete a quick survey to help with a research project, for a chance to win a $\$ 50$ gift certificate at Amazon.com. Twenty-eight out of 35 managers agreed to complete the survey, providing a response rate of $80 \%$.

Participants read, "Imagine that your company was having a problem with poor service. How would you change the following in response to this poor service? Please circle one answer for each potential change." Each potential change was evaluated on 7-point scales ( $1=a$ lot less, $4=$ neutral, $7=a$ lot more). The potential responses involved three filler items (e.g., "service oversight") and one focal item relevant to this research, "service employee attire standardization (i.e., uniforms)." Out of the 28 respondents, 3 advised less use of employee uniforms, 12 advised no change, and 13 advised more use of employee uniforms (producing a mean response of $M=4.64, S D=1.62$ ). A one-sample $t$-test revealed that this response was significantly different from the midpoint of 4 (neutral) on the scale $(t(27)=2.11, p=.04, d=0.4)$. Thus, managers often advise an increase in the prevalence of employee uniforms in environments with service problems.

It is difficult to say with certainty that these managers are wrong because uniforms likely do have some positive effects. For example, uniforms make employees easier to locate and identify (Nelson \& Bowen, 2000; Tu, Yeh, Chuang, Chan, \& Hu, 2011), make some employees seem higher in fit (Pounders et al., 2015), and some uniforms convey legitimacy (Rafaeli \& Pratt, 1993). Uniforms also change the wearer's behavior (Adam \& Galinsky, 2012; Frank \& Gilovich, 1988). However, these data do provide some evidence that managerial beliefs reflect the extant literature on employee uniforms: Both seem to assume primarily positive consequences of uniforms and fail to
account for the possibility that uniforms may have negative consequences during poor service.

## 6 | GENERAL DISCUSSION

Our four experiments show consistent and important effects of service employee uniforms on the evaluation of the employees involved in a service encounter, their colleagues, the company, and the company's competitors. We summarize the findings through metaanalyses of the four experiments, using ESCI (Cumming, 2013).

The influence of uniforms on the perception of the employee involved in the service scenario was small and sometimes unreliable in the individual experiments. However, a meta-analysis across all conditions of all experiments suggests a small beneficial influence of uniforms: the initially encountered employee was evaluated more positively when wearing a uniform, regardless of positivity of the employee's behavior ( $d=0.22$ ( $95 \% \mathrm{Cl}$ [.07, 0.37]). More importantly, our findings highlight that such positive effects cannot be taken for granted. If consumers experience a negative service encounter, uniforms amplify its negative impact. As observed in studies 1a and 1b, when service goes wrong, consumers attribute more responsibility to the company when employees are uniformed than when they are not ( $d=0.56$ ( $95 \% \mathrm{Cl}[.27,0.86]$ ). This increased blame after negative service encounters is not compensated for by increased praise after positive service encounters-uniforms do not provide an attributional advantage for companies when after positive service encounters, as indicated by a nonsignificant effect $(d=0.03)$ in study $1 b$.

Uniforms also affect perceptions of the company's other employees and the service they provide. A meta-analysis of studies 2 and 3 confirms that the performance of a given service employee is more likely to color perceptions of other employees when they wear uniforms than when they do not ( $d=0.45$ ( $95 \% \mathrm{Cl}[.19,0.71]$ ). Finally, the influence of employee uniforms extends beyond the company itself. By making differences between companies more salient, employee uniforms foster the emergence of contrast effects, as observed in study 3. As a result, an episode of poor service does not only hurt the company itself but also helps its competitors.

These results are consistent with predictions derived from the inclusion/exclusion model of assimilation and contrast effects in judgment (Bless \& Schwarz, 2010; Schwarz \& Bless, 1992a) and the literature on group entitativity (Crawford et al., 2002; Hamilton et al., 1998). Uniforms make people look more similar to one another and increase the perceived homogeneity and entitativity of the uniformed group. In the absence of individuating information about individual members, this increases reliance on what is known about the group when forming judgments of other members, as observed in the impact of the initial service encounter on judgments of other employees. Moreover, the uniforms mark the employees as members of a larger organization, which invites their inclusion in the representation formed of the company. This increases the impact of uniformed employees' behavior on judgments of the company and the perceived responsibility of the company for its employees'
performance. Competitors are evaluated against this company representation. When the company representation includes negative employee behaviors, it provides a lower standard of comparison against which competitors are evaluated more positively. These dynamics are consistent with results of other investigations into the role of exemplar attributes in social judgment (for a review, see Bless \& Schwarz, 2010). However, their implications for the use of uniforms in organizations has received little attention.

## 6.1 | Applied implications

To date, theorists' intuitions about the effects of uniforms largely exist in the absence of empirical data. Many focus on the professionalism conveyed by a uniform, which is a beneficial attribute of wearing uniforms (Barr, 2007; Sirianni, Bitner, Brown, \& Mandel, 2013; Solomon, 1985; Tu et al., 2011). Uniforms can also convey legitimacy and their design can contribute to the company's corporate image, not to speak of their practical advantage of locating an employee in a store (Babin, Darden, \& Griffin, 1994). Our theoretical framework also suggests that uniforms may convey the enduring quality of companies (Sani et al., 2007). Managers' intuitions are consistent with these positive assumptions. As our convenience sample of service managers illustrated, few if any expect that uniforms may compound the adverse consequences of negative service encounters. Unfortunately, our experiments show otherwise. Some authors also assume that uniforms highlight behavioral differences between employees (Joseph \& Alex, 1972; Solomon, 1985). In contrast, we find that uniforms foster the perception that all employees are similar, consistent with the results of numerous categorization studies (reviewed in Bless \& Schwarz, 2010).

Bringing categorization theories to bear on service companies suggests several techniques managers can employ to mitigate the negative consequences of employee uniforms following poor service, while still benefitting from their positive qualities. First, because uniforms increase the likelihood that the first employee encountered will set the tone for subsequent service interactions, companies that employ uniforms should attempt to have customers' first service experience involve the best employees. Second, in contexts where service is likely to be poor for extraneous reasons (e.g., the first few days of a new franchise, or in the face of difficult work conditions), companies can protect their image by relaxing the requirement that employees wear uniforms. In contrast, our observations suggest that employee uniforms are most common in companies whose front-line employees are relatively low in training, wages, and skills, such as those in the fast food industry. Third, because new employees are often lower in quality (Schlessinger \& Heskett, 1991), companies should consider removing uniforms from new employees or dressing them in different "trainee uniforms," highlighting the distinction between experienced and inexperienced employees.

We assume that the same principles of judgment apply to other domains that employ uniforms, including police, military, firefighters, athletes, and health care providers. Theorists and practitioners in
these diverse domains should recognize that their ubiquitous uniforms are encouraging attribution of responsibility of the individual's behavior to the overall organization, extremity of judgments of the organization, and assimilation of judgments across individuals. Future research is required to explore the nuances of these findings across these diverse domains.

## 6.2 | Limitations and future research opportunities

As all studies, our studies include limitations that should be taken into account. The main limitation may be that these studies involve scenario-based experiments. This methodology was chosen to enhance internal validity and ensure that identical service was provided across conditions. Any research showing differences between companies that choose to use or not use employee uniforms would suffer from endogeneity or self-selection issues, and even research that randomly assigns employees to wear or not wear uniforms would have confounds if uniforms change employees' actual behavior, as has been proposed and demonstrated in other contexts (Adam \& Galinsky, 2012; Frank \& Gilovich, 1988; Nelson \& Bowen, 2000; Rafaeli \& Pratt, 1993). As always, the careful control inherent in scenario-based studies comes with the tradeoff of some external validity (e.g., Bitner, 1990; Sirianni et al., 2013). On the other hand, simulated shopping scenarios are common in consumer research (e.g., Pounders et al., 2015) and our use of relatable scenarios provided our participants with a degree of realism.

Another potential limitation of this research is that it is difficult to disentangle the presence or absence of uniforms from related constructs, such as the appropriateness or professionalism of attire, the perceived similarity of employees, and the perceived fit of employees (Pounders et al., 2015). Previous research has shown that blatantly inappropriate attire on service employees can lower perceptions of the employee and company (Shao et al., 2004). Similarly, uniforms may signal the professionalism or devotion to customer service of the company (Rafaeli \& Pratt, 1993). We tried to sidestep these inherent problems by employing outfits that were similar in level of appropriateness and professionalism in the uniform and nonuniform conditions and focused on companies that our participants knew to usually employ uniforms. However, future research would benefit from variations in the type of uniform and type of industry used to address the robustness of the present findings across different domains of life in which uniforms are part of people's daily experience.

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## APPENDIX

METHODOLOGICAL DETAIL

## Business school scenarios

It is November and you and your group are working on your case presentation in one of the business school study rooms. You booked the room for an hour, but you got started late so decide to stay later. However, shortly after your time is up, a staff member (pictured below) enters the room and asks you to leave. He suggests that if you need more time you reserve it. One of your group members interrupts that this isn't fair because no one else has booked the room. The staff member points out that your group hasn't booked the room either as policy requires. He insists you leave, and locks the door behind you. After the rest of your group leaves you ask him if you can book another room through him. He says that he was just checking on the rooms before his dinner break and that you will have to wait an hour until he comes back. You resume your studying in the lower level lobby instead.
... However, shortly after your time is up, a staff member (pictured below) enters the room and asks whether you have it reserved. You tell him your reservation has just finished but you would like to stay in the room a while longer if that is possible. He tells you that someone else has the room reserved soon, but he can put them in a different room so you don't have to move. He has to delay his dinner break to extend your reservation and move the other one, but he tells you that it is not a problem. When he asks if there is anything else he can do for you, you request directions to the nearest copymachine and he gives you helpful directions. You then resume your studying.

You are sitting in a class, and the computer keeps crashing, disrupting the lecture. The teacher calls the support staff for assistance. A staff member (circled below) eventually arrives to help. At first the staff member has some trouble figuring out what the problem is, but eventually solves it and ensures that it won't happen again. The class resumes without any problems.


There were 3 tech support people on duty that day. The one who removed you from the room is circled. (Pictures temporarily excluded due to identifying information)

## Domino's scenarios

Imagine that you go in to Domino's Pizza to pick up some pizza you ordered. They said it would be ready at 7:30, and you arrive at 7:30 but are told you will have to wait 15 min for it to be finished. The employee working with you tells you that you owe $\$ 35$ even though the original quoted price was $\$ 27$. You ask him to double-check the price and he reluctantly complies and eventually tells you that the price is $\$ 27$. He's unapologetic about the delay and the error with the price.
... and you arrive at 7:30 to see the pizza being finished right on time. The employee working with you tells you that you should owe $\$ 27$, but he gives you a coupon that saves you $\$ 5$. He's very polite and helpful. As you are leaving in your car, the employee comes running after you to flag you down and give you a part of your order you had accidentally forgotten.

Imagine that you later go back to the same Domino's Pizza to pick up another order. It seems fairly busy. There is a short delay while the employee working with you has some trouble figuring out which order is yours. He eventually figures it out, takes your payment, and sends you on your way.


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