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Beyond Visibility: The Disability Inclusion Effect in Advertising

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Abstract: People with disabilities are among the most stigmatized groups in society, and the most underrepresented in advertising. We investigate advertising practices by which brands can include people with disabilities in ways that go beyond mere visibility. Across nine preregistered studies involving both hedonic and functional goods and services, we show a robust positive effect of featuring people with disabilities in advertisements on consumers' attitudes toward the ad, brand, and product. This *disability inclusion effect* generalizes broadly across products, endorsers (e.g., customers, models), disabilities (both visible and invisible), and consumer segments (people with and without disabilities). It arises because the brand demonstrates its support for the societal integration of people with disabilities. Accordingly, the effect arises whether the brand includes people with disabilities voluntarily or to comply with industry regulation, because both actions can produce the same perceived outcome—meaningful, concrete support of people with disabilities. On the contrary, the effect disappears when a brand's portrayal emphasizes vulnerability or impairment rather than agency and social inclusion, or the brand conspicuously highlights the model's disability in the ad itself in a tokenizing manner. Collectively, these studies reveal how managers can support people with disabilities and earn consumers' patronage without risking their backlash.

Keywords: advertising, brand endorsers, consumer attitudes, disability, effective inclusivity

Open Science: The data that support the findings of this article are publicly available in Research Box: https://researchbox.org/799&PEER_REVIEW_passcode=DZDIFV

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One in seven consumers worldwide, and roughly one in eight in the United States, lives with some form of disability (U.S. Disability Status Report 2023; World Health Organization 2023). Taken together, this population wields an estimated US \$13 trillion in annual spending power, yet people with disabilities remain one of the most persistently stigmatized consumer segments, and one of the most underrepresented in advertising. Decades of research documents the personal costs of stigma: low self-esteem and heightened social isolation (Drake 1999), reduced educational opportunities (Bines and Lei 2011), and enduring barriers to hiring, promotion, and pay (Turner and Turner 2004). Importantly, these disadvantages derive not necessarily from the impairments themselves, but often from the social meaning attached to the “disability” status. Anticipating prejudice, many individuals hide or “pass” their disability whenever possible (Camacho et al. 2020), further concealing their visibility in public life.

Mass media and commercial advertising have an opportunity to play a corrective role by normalizing disability. Indeed, the U.N. Convention on the Rights of Persons with Disabilities (2006) explicitly calls on media organizations to increase representation and reduce stereotyping. Yet the opposite pattern prevails. Only 1.6% of advertising commercials display a person with a visible disability, and when media do represent them, they are often cast in roles that reinforce dependency or tokenism (Bernardi and Alhamadan 2022; Campbell et al. 2023; Mirabito et al. 2016). This chronic underrepresentation deprives the public of counter-stereotypical exemplars, weakens social justice efforts, and perpetuates misconceptions that disability is rare and inherently pitiable (Jackson, Gurin, and Hatchett 1989).

Why do so few ads include people with disabilities? A survey of managers reveals two concerns. First, many doubt that disability inclusion will facilitate sales—or worse, they fear it could alienate “mainstream” consumers. Second, they worry about reputational damage if the portrayal is perceived as tokenistic or the representation as exploitative¹. Many examples in advertising validate that fear. For instance, the U.S. “Telethon” charity broadcasts of the early 1990s were picketed for portraying children with disabilities as objects of pity (Welsh 2018). Vogue’s 2016 “We Are All Paralympians” campaign in Brazil digitally edited prosthetics onto models without disabilities, and was subsequently condemned for erasure (Green 2016). Victoria’s Secret (2022) and SKIMS Adaptive (2024) both sparked social media firestorms when critics argued that they commodified disability merely to enhance their own brand image (Acevedo 2022; Latifi 2023). These cases highlight a central point: The question is not whether to include disabilities in advertising, but rather, how to do so *effectively*.

Recent research revealed that, in some cases at least, including a model with a disability in an ad can improve consumers’ attitudes toward the ad, brand, and product. We argue that this *disability inclusion effect* is due to consumers’ perceptions that, by including a person with a disability in an ad, the brand more broadly supports the inclusion of people with disabilities in society. Accordingly, whereas the prior work demonstrated the disability inclusion effect only with fashion brands (Wang and Wei 2025), visible disabilities (Klucarova 2024), and/or young consumers (Muralidharan et al. 2024; Qayyum et al. 2023), we instead demonstrate a robust, positive effect of disability inclusion that generalizes across (i) diverse products and services (e.g., clothing, energy drinks, financial services, shower gels, perfumes, restaurants, TV series), (ii) different types of endorsers (e.g., actors, customers, models), (iii) both visible and invisible

¹ We surveyed 21 managers from different industries (e.g., from banking to food and beverages; 59% females, $M_{age} = 42$). The majority (70%) believe that including a model with a disability in an ad would increase sales among consumers *with* a disability, but crucially, 76% also believe such ads would have no effect or a negative effect on sales among consumers *without* a disability.

disabilities (e.g., autism, limb difference, wheelchair use), and (iv) consumers across demographic groups (e.g., age, gender, disability status).

We argue that when a brand represents people with disabilities in their ads, consumers may infer that the brand values people with disabilities and supports their meaningful inclusion in society, and that perception of *effective inclusivity* improves consumers' attitudes toward the ad, brand, and product. Crucially, such disability inclusion can meaningfully support people with disabilities, even if the brand is not voluntarily inclusive. For instance, we also find positive attitudes when an industry regulation on diversity, equity, and inclusion (*DEI*) compels a brand to include models with disabilities. By contrast, the effect disappears when (i) the representation of disability is focused on the person's vulnerability, thus perpetuating negative stereotypes, as the Telethon charity did, and (ii) the brand conspicuously highlights the model's disability in the ad itself, as Victoria's Secret did with Sofia Jirau, a model with Down Syndrome. These findings clarify that the positive impact of disability representation is not simply driven by a company's benevolent intentions or its willingness to deviate from norms (Wang and Wei 2025). Rather, what matters is how inclusion is communicated. Only when a brand's actions are perceived to effectively support inclusivity do consumers reward it.

In what follows, we summarize the relevant characteristics of individuals with disabilities, as well as how they are typically viewed by others. We then review the prior evidence of a disability inclusion effect, present our explanation of that effect, and generate our novel hypotheses about consumer responses to the inclusion of people with disabilities in advertising.

People with Disabilities: A Marginalized Group

The *Americans with Disabilities Act* (U.S. Equal Employment Opportunity Commission 1990) defines *disability* as a physical or mental impairment that substantially limits a person's ability to perform self-care activities like bathing or eating, or life activities such as walking or reading. The impairments' nature can range from "invisible" disabilities such as deafness or schizophrenia to visible disabilities such as paraplegia or Down syndrome. People with disabilities constitute one of the largest marginalized groups in the world (World Health Organization 2023).

Individuals with disabilities encounter unique forms of marginalization that distinguish them from other marginalized groups. They are commonly viewed as particularly vulnerable (Cuddy, Fiske, and Glick 2007) and they are especially underrepresented in the media (Campbell et al. 2023). They are stereotyped as higher in warmth but lower in competence in interpersonal interactions (Fiske et al. 2002), and perceptions of people with disabilities often focus on their impairment rather than their capabilities, fostering pervasive social stigmata (Dunn and Andrews 2015). Because of these social stigmata, individuals with disabilities often encounter significant disadvantages. They frequently suffer from low self-esteem and feelings of social isolation (Drake 1999), and they tend to receive lower levels of education (Bines and Lei 2011), face challenges in securing employment (Turner and Turner 2004), and experience poorer health and life outcomes compared to other social groups (Emerson et al. 2011; Iezzoni 2011). In addition, people with disabilities often feel overlooked or "invisible" within society (e.g., Chouinard 1997). The severe underrepresentation of people with disabilities in media, culture, and public life remains a critical issue. Advocacy by social justice groups and international organizations like the United Nations is geared toward enhancing their visibility and representation, which is crucial for fostering societal acceptance and integration (United Nations 2024). Advertising can play a crucial role in this normalization (Jackson, Gurin, and Hatchett 1989).

The Disability Inclusion Effect

One simple way to enhance the visibility of people with disabilities is for brands to include them in their advertising. But is this effective for the brand? Klucarova (2024) found that a post by an Instagram influencer with a disability marginally increased the hypothetical willingness-to-pay for a promoted product, relative to a control post with no disability. Qayyum, Jamil, Shah, and Lee (2023) found that a brand's Instagram post increased purchase intentions among young adults when the post included people with disabilities, relative to no disability. In contrast, Muralidharan, La Ferle, and Roth-Cohen (2024) found no disability inclusion effect among young adults. And in fact, among older adults, a model with a disability *decreased* ad attitudes, brand attitudes, and purchase intentions. Most recently, across several experiments, Wang and Wei (2025) found that fashion models with disabilities reliably improved consumers' attitudes toward the ad and the brand and increased purchase intentions and choice shares for the advertised product. Thus, the prior research indicates that including people with disabilities in ads can benefit brands, but the precise conditions of that effect are still unclear.

By representing a person with a disability in its advertising, a brand signals that it supports their societal inclusion. This signal reveals to consumers with disabilities that the brand welcomes and values them. But how will consumers *without* disabilities, or those who in general do not feel stigmatized, respond to such ads? We argue that they too will respond positively, because most contemporary consumers support social inclusion in general (Arsel et al. 2022; Khan and Kalra 2022), and disability inclusion is especially valued (Norwich 2007). So, given that featuring people with a disability signals social inclusivity, and given that most contemporary consumers highly value disability inclusion, most contemporary consumers should support brands that include a person with a disability. Moreover, the generality of this rationale implies that the disability inclusion effect should generalize beyond fashion brands, and across different types of products, endorsers, disabilities, and consumers.

H1: Including a person with a disability (compared to a person with no disability) in an ad improves consumers' evaluations (e.g., ad attitudes, brand attitudes, choice shares; i.e., *disability inclusion effect*).

Mere Visibility versus Effective Inclusivity

In this research, we define *mere visibility* as the visual representation of people with disabilities in ads, and *effective inclusivity* as portrayals that communicate support for their broader societal acceptance. Prior research on disability in advertising has focused primarily on mere visibility. This emphasis is well motivated: Because people with disabilities remain severely underrepresented in the media (Campbell et al. 2023), increasing their visibility is an important way to support them. Indeed, many consumers recognize the disadvantage that people with disabilities face, and those consumers are motivated to help (van der Sluis et al. 2024). Moreover, feeling "invisible" is a salient concern among people with disabilities (Chouinard 1997), who often report exclusion from public narratives (Heumann & Wodatch 2020). Thus, consumers may respond positively to ads featuring a person with a disability because such ads can help people with disabilities feel "seen." Mere visibility can therefore yield psychosocial benefits for people with disabilities.

However, mere visibility may not go far enough to support people with disabilities, or to earn consumers' appreciation. After all, some ads that include people with disabilities instead elicited backlash from consumers. A key practical gap, then, is how to feature disability in

advertising such that it is rewarded by consumers. We adopt the view that inclusivity requires portraying individuals in ways that recognize, understand, and appreciate them without disadvantaging them on the basis of a diversity attribute (Eisend, Muldrow, & Rosengren 2022). Advertising not only reflects society but also creates and transfers meaning (McCracken 1986, 1989; Holt 2004) and, through repeated exposure, helps define social reality (Morgan et al. 2009). Thus, portrayals that communicate inclusion can not only help marginalized groups feel “seen,” but perhaps more fundamentally, they can also improve attitudes and reduce discriminatory behavior toward those marginalized groups (Bandura 2001; Żerebecki, Oprea, & Hofhuis 2021). Mere visibility, in contrast, may not reduce the marginalized group’s disadvantage. In fact, some portrayals may even reinforce stigma.

Our research thus examines which disability portrayals are perceived as effectively inclusive rather than merely visible in ads. Whereas prior work typically isolated visibility by comparing ads that include versus exclude disability, an effective inclusivity approach focuses on the meaning conveyed: Portrayals should signal societal acceptance and respect, and should avoid cues that reinforce pity, tokenism, or incompetence. In turn, because consumers value social inclusion (Arsel et al. 2022; Khan and Kalra 2022), portrayals that foster the acceptance of people with disabilities should also improve consumer attitudes. This perspective aligns with broader evidence that inclusivity practices foster a sense of belonging within organizations for marginalized groups (Chaney, Sanchez, & Maimon 2019; Lamberton 2019; Wooten & Rank-Christman 2019) and that consumers respond positively to firms perceived as genuinely inclusive (Khan & Kalra 2022). This distinction may also help explain why some campaigns featuring models with disabilities have elicited backlash: Not only must people with disabilities be visible, but also their meaningful societal inclusion must be credibly communicated.

H2: Perceived effective inclusivity of the brand mediates the disability inclusion effect.

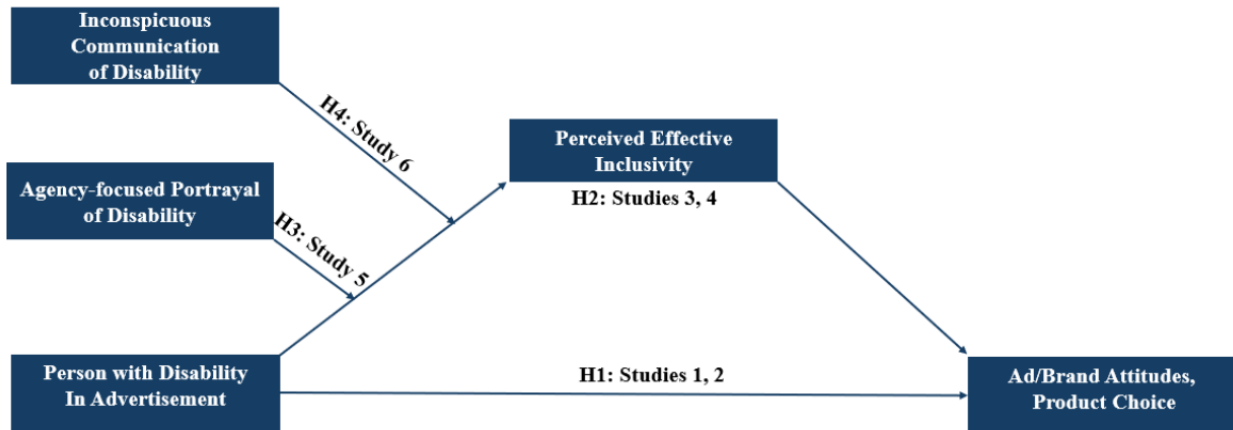
Conceptual Model

We have argued that including a model with a disability in an ad signals the brand’s effective inclusivity to the extent that inclusion is perceived to meaningfully support the societal acceptance and integration of people with disabilities. Moreover, that perceived effective inclusivity should enhance consumers’ attitudes toward the ad and brand, and increase choice shares across diverse product categories. This hypothesized effect (**H1**) and process (**H2**) provide the core of our conceptual model, illustrated in Figure 1.

Notably, due to our emphasis on *effective* inclusivity, we propose that consumers may place greater weight on the *impact* of a brand’s action than on its inferred motives. For instance, consumers may view a brand as effectively inclusive whether the brand features people with disabilities voluntarily, or does so to comply with industry quotas for inclusivity. This is because both actions can promote the same outcome: meaningful societal inclusion of people with disabilities. This logic is consistent with Nunes et al.’s (2021) conceptualization of authenticity as a formative construct comprising six components—accuracy, connectedness, integrity, legitimacy, originality, and proficiency. In this framework, a brand can be perceived as authentically supportive of disability inclusion insofar as it aligns with shared market norms, standards, and rules (e.g., inclusivity quotas), which can bolster perceived legitimacy even when it provides limited evidence of intrinsic motivation (i.e., integrity). That is, the presence of an inclusivity quota need not undermine a brand’s authentic and effective inclusion of people with disabilities. On the contrary, the brand’s genuine compliance with such a regulation may signal

its effective inclusivity.

Figure 1. Conceptual model and overview of studies



As shown in our conceptual model, we also hypothesized two theoretically derived and managerially important moderators. Our studies focus on moderating the A-path (i.e., left side) of our conceptual model because that directly tests whether the perception of a brand as effectively inclusive is indeed the psychological process underlying this effect: Any marketing factor that moderates perceived effective inclusivity should also moderate the disability inclusion effect. And as such, those factors may be crucial for managers to realize the strategic benefits of disability inclusion. We also specifically focus on potential moderators that discriminate between our account based on perceived effective inclusivity and a prior account based on brand warmth and coolness (Wang and Wei 2025).

Portrayal of Disability

One factor that may moderate perceived effective inclusivity, and hence the disability inclusion effect, is how the disability is portrayed in the ad. As explained previously, we argue that the meaning conveyed by the portrayal shapes whether the brand is perceived as effectively inclusive rather than as merely increasing visibility. A useful lens for understanding what effective inclusivity is—and is not—comes from comparing two perspectives on disability: the medical model (World Health Organization 2001) and the social model (Oliver 1990).

The medical model frames disability as an individual deficit requiring correction. In advertising, this emphasis often foregrounds the stereotypical view of disability as impairment and vulnerability, such as charity appeals that depict disabilities as pitiable. Such portrayals can invite paternalistic inferences (i.e., people with disabilities are seen as higher in warmth but lower in competence in interpersonal interactions; Fiske et al. 2002). Although these messages may be intended to evoke empathy, they can inadvertently communicate low agency, dependence, or unequal status—shifting audiences from respect toward pity. Because pity is experienced as disadvantaging, it can undermine perceived societal value and social integration of people with disabilities, and thus weaken the ad’s perceived inclusivity.

In contrast, the social model emphasizes that disability is shaped by social barriers and norms, and that inclusion requires enabling full participation (Chouinard 1997). In advertising, this translates into portrayals that foreground agency, competence, and equal-status participation, depicting people with disabilities as integrated and valued in everyday social roles (i.e., as full

participants rather than as symbols or objects of inspiration). For example, Diesel featured fashion model Jillian Mercado, who has muscular dystrophy and uses a wheelchair, in its 2014 “Reboot” campaign without making her disability the message itself (Saner 2014). Such portrayals can facilitate normalization and societal inclusion by presenting disability as compatible with valued roles.

Notably, if mere visibility were sufficient for the disability inclusion effect, then representation should improve attitudes regardless of whether the portrayal emphasizes vulnerability or agency. We argue instead that portrayal matters fundamentally. Inclusivity cues are most effective when they foster belonging and safety among stigmatized groups (Wooten & Rank-Christman 2019), thereby enhancing perceived social integration. Consequently, we predict that disability representation improves consumer evaluations to the extent that the portrayal communicates genuine integration and participation in society (i.e., agency-focus).

H3: The portrayal of disability moderates the disability inclusion effect, such that vulnerability-focused (vs. agency-focused) portrayal attenuates the effect.

Inconspicuous Communication

Finally, another factor that may moderate perceived effective inclusivity is how the brand communicates the disability. Specifically, we investigate whether the brand highlights the disability. We define *conspicuous communication* as explicit textual labeling of the disability within brand-controlled materials, such as mentioning the disability within an ad or hashtag. In contrast, *inconspicuous communication* occurs when brand materials do not mention the disability, and hence either the disability remains implicit, or any mentions appear only in third-party media. Marginalized groups are particularly sensitive to how their stigmatized identities are communicated (Johnson, Joshi, and Hogan 2020), and individuals with disabilities are especially vulnerable (Camacho, Reinka, and Quinn 2020). Because disability is a socially stigmatized attribute, conspicuously invoking it when describing a person can reduce that person “from a whole and usual person to a tainted, discounted one” (Goffman 1963). Moreover, conspicuous communication can transform disability into an identity label, reinforcing the stigma and separation from non-disabled people (Link and Phelan 2001). In this sense, such communication may signal the brand’s intention to give visibility to people with disabilities, but it may also harm the community by reinforcing stigma, ultimately making the action appear tokenistic.

Consider, for example, two recent ad campaigns that featured models with Down syndrome: Gucci’s 2020 campaign with Ellie Goldstein, and Victoria’s Secret’s 2022 campaign with Sofia Jirau. Both launched in similar markets around the same time. Yet, the Gucci campaign received widespread acclaim, while the Victoria’s Secret campaign evoked consumer backlash. We suggest that a crucial difference was how the disability was communicated. Gucci did not explicitly acknowledge Goldstein’s disability within their promotional materials (i.e., inconspicuous). Rather, the model’s disability was discussed and lauded in separate, independent media (Alexander 2023). In contrast, Victoria’s Secret prominently promoted Jirau as the brand’s “first model with Down Syndrome,” explicitly emphasizing her disability on Instagram (i.e., conspicuous; Acevedo, 2022), and the brand was widely accused of exploiting the model (Shewan Stevens 2022). We conjecture that because the brand conspicuously highlighted the model’s disability in a tokenizing manner, consumers discounted the credibility and impact of the disability inclusion, rendering the ad less effectively inclusive (cf., Nunes et al. 2021).

H4: Communication of the disability moderates the disability inclusion effect, such that conspicuously (vs. inconspicuously) communicating the disability attenuates the effect.

Overview of Studies

The present studies test how a person with a disability in an ad affects consumers' ad attitudes, brand attitudes, and product choices. In all our studies that include visible disabilities, we compare two versions of each ad: one in which the original disability is visible (e.g., a model missing a limb or using a wheelchair) and one in which the disability was edited out (e.g., a limb was added or a wheelchair was removed), so that the two ads were identical except for the presence or absence of the disability. Invisible disabilities, such as autism, were simply described in text (in either a mock news brief or the ad itself). All studies were preregistered. All stimuli, surveys, preregistrations, datasets, and analysis code are accessible in a ResearchBox.²

We consistently find strong positive effects of a person with a disability on attitudes toward the ad, brand, and product. Using incentive-compatible and consequential choice, Studies 1 and 2 respectively demonstrate that consumers are more likely to choose a shower gel or an energy drink when it is advertised by a model with a disability. Using a financial services brand, Study 3 tests whether the brand's perceived warmth and coolness (as hypothesized by Wang and Wei 2025) and/or its perceived inclusivity (as we hypothesize) mediate the disability inclusion effect. We find that perceived effective inclusivity mediates the effect, whereas brand warmth and coolness both lack sufficient discriminant validity from consumer attitudes to meaningfully mediate the effect.

In our remaining studies, to discriminate between those competing explanations of the disability inclusion effect, we identify marketing contexts in which perceived inclusivity predicts a different outcome from perceived warmth and coolness. First, Study 4 demonstrates that when disability representation in an ad for a restaurant is mandated by regulation, the brand is not perceived as either warm (i.e., having benevolent intentions) or cool (i.e., deviating appropriately from norms). Nonetheless, the restaurant is perceived as effectively inclusive, and hence the disability inclusion effect occurs. Study 5 tests whether the portrayal of disability moderates the effect, by presenting the disability in an ad for a TV show with either a vulnerability-focus or an agency-focus. As predicted, a vulnerability-focused portrayal of disability attenuates the brand's perceived inclusivity, and eliminates the disability inclusion effect. Neither warmth nor coolness predicted this attenuation. Finally, using an invisible disability (i.e., autism), Study 6 shows that when the brand communicates the disability conspicuously by highlighting it in an ad for a perfume, then the brand no longer appears as effectively inclusive, and the disability inclusion effect is eliminated. And once again, neither warmth nor coolness tracked this attenuation.

We also report three other studies of the disability inclusion effect in our Web Appendix, and we describe them briefly in the General Discussion. Across studies, we demonstrate the disability inclusion effect in a broad range of product categories (i.e., shower gel, energy drink, financial service, restaurant, entertainment show, perfume), with both visible and invisible disabilities (i.e., missing limb, wheelchair user, autism spectrum), across a broad range of consumer groups (i.e., across ages and genders, both with and without a disability). Collectively, these studies reveal how managers can earn consumers' patronage without risking their backlash.

² https://researchbox.org/799&PEER_REVIEW_passcode=DZDIFV

Study 1: Disability Inclusion Effect with Incentive-Compatible Choice

Study 1 tested **H1**, examining whether people choose a product advertised by a model with a disability over a similar product advertised by a non-disabled model. Participants viewed advertisements for two shower gels, one with a model with a physical disability (i.e., limb difference), the other with a model with no visible disability (see Figure 2; models and brands were counterbalanced). Participants were asked to indicate which brand of shower gel they preferred to have, and were truthfully informed that if they were randomly selected, they would receive two bottles of the shower gel they chose.

Figure 2. Example of stimuli in Study 1.



Method

Participants. We recruited 302 US residents ($M = 40.29$ years, $SD = 12.99$; 64% females; 12% with a disability: 3% physical, 5% mental, 4% both) on Prolific online panel.

Stimuli. We first selected two female models, each of whom was missing an arm, and created control versions in which the missing arm was Photoshopped onto each model. This produced four model images (i.e., 2 models \times 2 versions). We then selected two brands of shower gels, EO Essentials and Tree to Tub. The two models, the two versions of each model (disability, control), and the two brands were fully crossed, producing eight ads (i.e., 2 models \times 2 versions \times 2 brands). Those eight ads were paired across four experimental lists, so that each list included one model with a disability and one control model, each representing a different brand (see Web Appendix A for the complete set of stimuli). Participants were randomly assigned to one of the four experimental lists.

Procedure. Participants were informed that they would view ads for shower gels from two different brands, and that they would be asked to choose their preferred brand. They were further instructed that “one participant will be randomly selected to receive two bottles of the chosen brand (16 fl oz in total, approximate value: \$20). Please be sure to select the option you genuinely prefer, as you may actually receive two bottles of your selected type.” Participants viewed the ads for the two shower gels one at a time at their own pace, and then viewed them side by side and selected the brand of shower gel they would prefer to have. The sequential display order and the simultaneous left/right position of the ads were randomized. After participants made their choice and advanced to the next page, we asked them whether one of the models in the ads had a disability (yes vs. no). Fifty participants (16.6% of the sample) failed this manipulation check. Finally, at the end of the study, participants indicated their gender and age, whether they had a disability, and if so what type (i.e., mental, physical, or both). Upon

completion, we randomly selected one participant and sent them two bottles of their chosen shower gel.

Results and Discussion

As predicted, participants were more likely to choose whichever shower gel was advertised by a model with a disability, supporting **H1**. This preference was significant both without participants who failed the manipulation check (57% choice share), $N = 252$, $\chi^2(1) = 4.59$, $p = .032$, and with all participants included (58% choice share), $N = 302$, $\chi^2(1) = 7.07$, $p = .008$.³ Because participants' choices in this study were anonymous and they knew they might receive two bottles of their chosen shower gel, their choices suggest a genuine preference for products advertised by a model with a disability. Thus, the disability inclusion effect is not limited to fashion brands (cf. Wang and Wei 2025). Study 2 further tests this effect with both public and private choices in a naturalistic setting.

Study 2: Disability Inclusion Effect in the Field

Study 2 tested **H1** in the field. We intercepted gym patrons and offered them a free energy drink. One brand was advertised by a model with a disability, whereas the other featured a model with no visible disability (see Figure 3). Participants were asked to choose an energy drink, and all participants received the brand they chose. Given that inclusivity is a social value, participants might select the inclusive brand to signal to others their support for inclusivity. Alternatively, they might choose the inclusive brand because they genuinely wish to support disability representation, independent of social recognition. If the latter motivation is true, we would expect participants to make similar choices even when selecting in private. Study 2 therefore manipulated the publicity of the choice, allowing us to determine whether the disability inclusion effect persists with little or no potential for social signaling. Half the participants made their choice of energy drink in the presence of a research assistant (*public* condition), whereas the other half chose in private (*private* condition).

Method

Participants. We recruited 354 students ($M = 23.6$ years, $SD = 8.1$; 37% females) in a gym on the campus of a European university, and we rewarded participants with an energy drink of their choice.

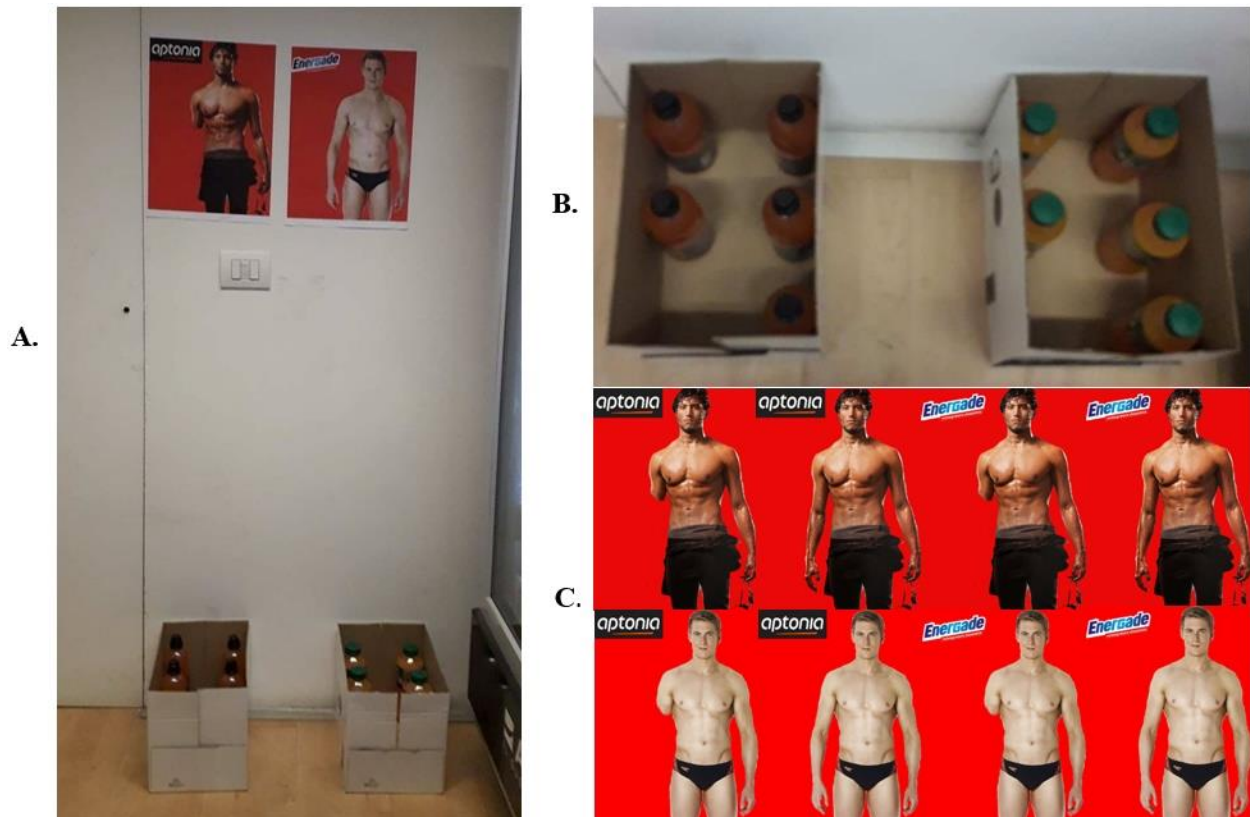
Stimuli. We created disability and control ads for two brands. Given that the target products were energy drinks, we selected as models two athletes with a disability. We selected two brands of energy drinks, Aptonia and Energade, that were not well known among our participants. Both were orange flavored. The two models, the two versions of each model (disability, control), and the two brands were fully crossed, resulting in eight stimulus ads. The ads were professionally printed as 16.5×11.5 -inch color posters (Figure 3).

Setting and Procedure. The study was conducted in an unoccupied room that was not visible by other patrons or employees of the gym. Placed in the room were two boxes of energy drinks, one of each brand. Both boxes contained exactly five bottles of the given brand, with some space within the boxes left empty. The presentation of the energy drinks was designed to prevent inferences about brand popularity (by including identical numbers of each brand) and to allow participants in the private condition to believe that their choice was not being monitored. Moreover, the bottles of the two energy drinks were of the same color and similar shape, making it difficult for an external observer to figure out which energy drink a participant had chosen. Above each box was a poster advertising the brand below it, and critically, one of the posters

³ In this and all other studies, participants' demographics had little or no effect on the disability inclusion effect; see the Web Appendix for demographic analyses of this and all other studies.

included a model with a disability, whereas the other included a control model with no visible disability. The model associated with each brand, the brand associated with a disability, and the position of the two ads (left, right) were fully counterbalanced across participants.

Figure 3. Setup (panels A and B) and stimuli (panel C) of Study 2.



A research assistant (RA) approached students individually as they entered the gym and offered them an energy drink, under the guise of a promotional initiative. Participants who accepted the offer were escorted to the room described above. In the *public* condition, the RA asked which energy drink they wanted and handed it to the participant. In the *private* condition, the RA invited the participant to simply choose and take one bottle of whichever energy drink they wanted. The RA then conspicuously exited the room and returned to the entrance of the gym, leaving the participant alone to choose. After each participant made a choice and exited the room, the RA discreetly entered the room to replace the missing bottle.

The RA was blind to the hypothesis, and participants were not informed that they were participating in an experiment. Unbeknownst to our participants, however, a different RA would intercept them after they exited the room. The second RA sought their informed consent to include their data in the study (no participant declined). Participants then indicated their age and sex, completed a manipulation check (“Did one of the two ads portray a disabled model?”), and answered two control questions: We asked participants “Have you tasted [Energade/Aptonia] before?” Participants indicated their prior consumption (or not) of both brands. We preregistered an iterative sampling procedure with a target N of 300 participants after excluding those who failed the manipulation check. The final sample included 354 participants, 300 of whom passed

the manipulation check (i.e., 15.3% failed the manipulation check).

Results and Discussion

As predicted, participants were more likely to choose whichever energy drink was advertised by a model with a disability, regardless of whether they made their choice in private (60.1% choice share; $z = 2.38, p = .017$) or in public (68.4%; $z = 4.46, p < .001$). Moreover, the difference in choices between the public and private conditions (i.e., 68.4% versus 60.1%) was not significant, $\chi^2(1) = 2.24, p = .134, w = 0.086$. A power calculation revealed that, given the observed effect size ($w = 0.086$), a sample of 1,408 participants would be required to achieve a 90% likelihood to observe a difference between conditions at $p = .05$. Thus, if social signaling contributes to the disability inclusion effect, that contribution appears rather small.

We further tested the robustness of this result in two ways. First, we repeated the analysis, but additionally including the 54 participants who previously were excluded for failing the manipulation check. Although the effect reduced in magnitude, there still was no difference between the private (58.9%) and public conditions (66.7%), $N = 354, \chi^2(1) = 2.20, p = .130$, and both choice shares were still significantly greater than 50% (both $z > 2.30, p < .02$). Second, we analyzed the choice proportions via logistic regression with condition (private vs. public) as the predictor of interest, and also with the three counterbalancing factors (brand, model, and position), and time of day, day of week, and participants' prior consumption of the two brands all included as covariates. None of the covariates was significant (all $p > .15$), and once again the condition (private vs. public) failed to predict participants' choices of the brand advertised by a model with a disability, $p = .33$.

Study 2 thus demonstrated the disability inclusion effect in a real-world setting, where participants' choices were made in private and were immediately consequential. These conditions increased the likelihood that participants expressed their genuine preferences between brands. Moreover, we again observed this preference in brands unrelated to fashion (cf. Wang and Wei 2025). These results thus establish the reliability of the disability inclusion effect, as well as its generality across product categories, supporting **H1**.

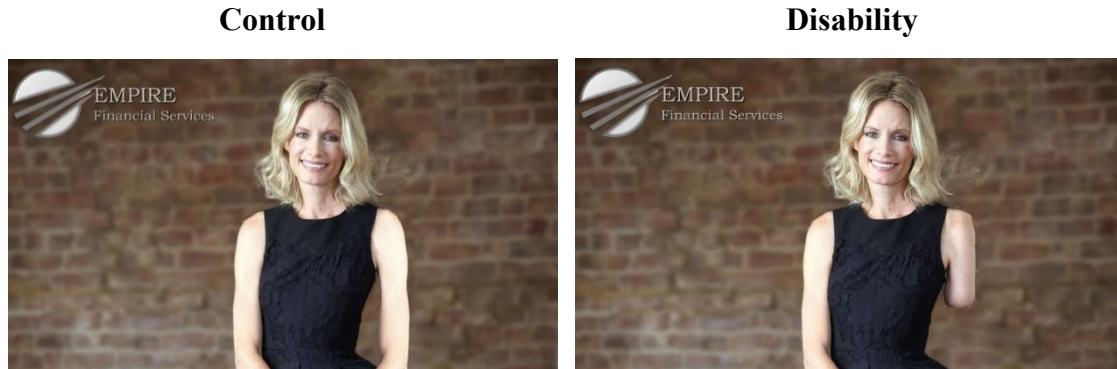
Study 3: Process Evidence (Perceived Effective Inclusivity)

Our theorizing assumes that consumers positively evaluate brands that include people with disabilities in their ads because the brand supports effective inclusivity (i.e., promotes inclusion of people with a disability in society). Study 3 tests this theorizing via mediation (**H2**). Participants viewed and evaluated an ad for a financial services brand, and the model was either missing a limb (disability condition) or not (control condition; see Figure 4). They also evaluated the perceived effective inclusivity of the brand, which was our hypothesized mediator. We predicted that the brand's perceived effective inclusivity would mediate the positive effect of a model with a disability on attitudes (**H2**).

Study 3 also tested Wang and Wei's (2025) competing explanation of the disability inclusion effect based on the brand's perceived warmth and coolness. We used a financial services brand because Wang and Wei's theorizing would not naturally predict the disability inclusion effect in such brands. Wang and Wei argue that including a model with a disability is more effective in contexts that encourage self-expression, where breaking norms is accepted (e.g., fashion). In contexts focused on self-presentation, where norms are strictly enforced, they argue that disability representation is less effective. Banking is a highly regulated sector with strict presentational norms, such as stringent dress codes to which employees must adhere. Thus, according to Wang and Wei's reasoning, the disability inclusion effect is unlikely to occur in

financial services. We also directly measured both brand warmth and coolness as alternative mediators.

Figure 4. Stimuli of Study 3.



Method

Participants. We recruited 406 US residents on Prolific. Five participants failed the attention check (described below) and, as preregistered, were screened out from the survey. Thus, the total valid sample consisted of 401 participants ($M = 41.25$ years, $SD = 13.5$; 47% males; 9% with a disability: 2.2% mental, 3.9% physical, 2.7% both).

Stimuli. We created two versions of an ad for a fictitious financial service (see Figure 4) in which the model was either missing a limb (disability) or not (control).

Procedure. Participants first completed an attention check (“How much attention are you willing and able to dedicate to this task? If you select ‘very little’, then we will have to reject your work;” options: very little, a whole lot). They then were randomly assigned to view either the control or the disability ad, and they rated their attitude toward the ad on three items (“I like this ad; the ad is well made; my opinion regarding the ad is very positive”) on a slider scale from 0 (strongly disagree) to 100 (strongly agree), and their attitude toward the brand on three bipolar slider scales from 0 (“Unfavorable; Bad; Dislike”) to 100 (“Favorable; Good; Like”). A principal components analysis (PCA) revealed that the six items were unidimensional (Cronbach $\alpha = .98$), so as preregistered, we averaged them into a single index of attitudes. Participants also rated their perception of the brand’s effective inclusivity on three items (“The brand sincerely promotes inclusivity,” “The brand benefits minorities,” and “The brand supports integration of minorities;” $\alpha = .95$) on a scale from 1 (strongly disagree) to 5 (strongly agree). Following Wang and Wei (2025), we also measured perceptions of the brand’s warmth (“In your view, the brand Empire is...warm, friendly”) and coolness (“To what extent do you personally consider the brand, Empire, cool or uncool?”, “To what extent do you think your close friends would consider the brand, Empire, cool or uncool?”) on scales from 1 (not at all) to 7 (very much). Finally, participants reported their age, gender, whether they had a disability, and if so, what type (mental, physical, or both).

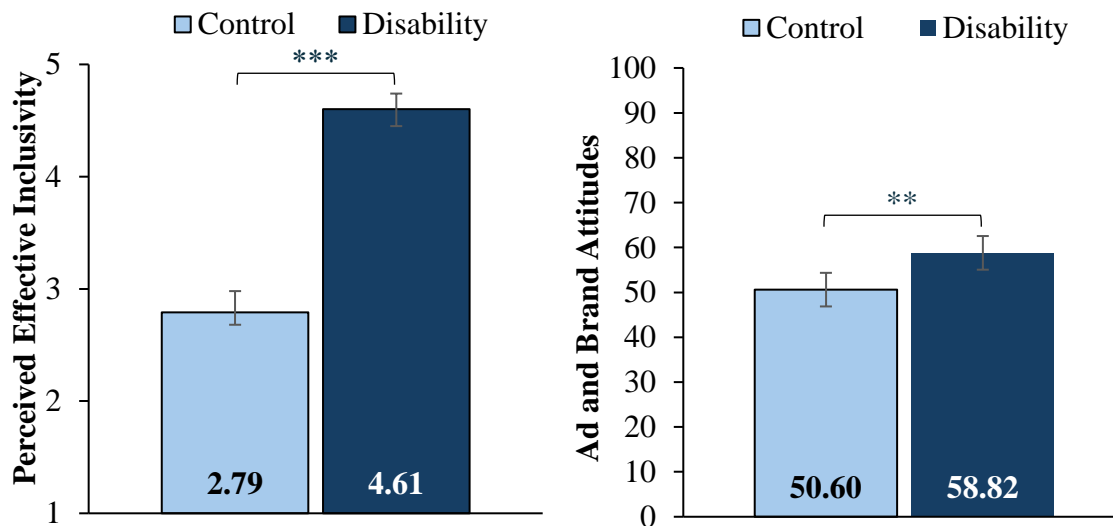
Table 1. Mean (SD) warmth, coolness, inclusivity, and attitudes in Study 3.

	Warmth	Coolness	Inclusivity	Attitudes
Control	4.39 (1.59)	3.85 (1.79)	2.79 (0.92)	50.60 (27.76)
Disability	5.14 (1.60)	4.65 (1.71)	4.61 (1.14)	58.82 (26.17)

Results and Discussion

Perceived effective inclusivity of the brand and disability inclusion effect. Results are summarized in Table 1 and illustrated in Figure 5. As predicted, the brand was perceived as more effectively inclusive when the ad included a model with a disability, relative to the control model, $t(399) = 17.59, p < .001$, Cohen's $d = 1.77$. Also as predicted, consumers' attitudes increased when the ad represented a model with a disability as compared to the control, $t(399) = 3.04, p = .003, d = .30$.

Figure 5. Perceived effective inclusivity of the brand and attitudes toward the ad and brand in Study 3. Error bars denote 95% confidence intervals. *** $p < .001$; ** $p < .01$.



Mediation by perceived effective inclusivity. We additionally tested whether the perceived effective inclusivity of the brand underlies the disability inclusion effect. The presumed mediator (perceived effective inclusivity) and dependent variable (attitudes) correlated moderately ($r = .56, p < .001$), suggesting sufficient discriminant validity for meaningful mediation (Pieters 2017). A bootstrap mediation analysis (Hayes 2017, PROCESS model 4, 10K samples) revealed that the model (control = 0, disability = 1) predicted perceived effective inclusivity ($B = 1.82, SE = .10, CI_{95} = [1.61, 2.02]$), which in turn predicted attitudes ($B = 16.09, SE = 1.02, CI_{95} = [13.04, 29.14]$), and hence the indirect effect was significant ($B = 29.28, SE = 2.58, CI_{95} = [24.53, 34.55]$). That is, perceived effective inclusivity mediated the effect of disability inclusion on attitudes.

Brand warmth and coolness. The brand was perceived as both warmer, $t(399) = 4.73, p < .001, d = 0.47$, and cooler, $t(399) = 4.52, p < .001, d = 0.45$ (see Table 1), when the model had a visible disability than when they did not. We also examined whether brand warmth and/or coolness may mediate the disability inclusion effect (as in Wang and Wei 2025), but the excessively high intercorrelations between warmth and coolness ($r = .84, p < .001$), warmth and attitudes ($r = .77, p < .001$), and coolness and attitudes ($r = .82, p < .001$) indicated that the three measures lack sufficient discriminant validity for meaningful mediation (see Pieters 2017). Indeed, a PCA revealed that the two warmth items, the two coolness items, and the six attitude items all loaded onto a single factor ($\alpha = .92$; see Web Appendix C for full detail). That is, the potential mediators and dependent variable appear to be different measures of the same latent construct, thus rendering mediation analyses meaningless and invalid.

Discussion. Study 3 demonstrated the disability inclusion effect in a financial services brand, supporting **H1**. Notably, Wang and Wei's (2025) theorizing supposes that the effect is unlikely to occur in such contexts, where norm-breaking is discouraged. Study 3 further showed that the brand's perceived effective inclusivity underlies that effect, supporting **H2**. The brand's perceived warmth and coolness, in contrast, cannot explain the disability inclusion effect because they are essentially alternative measures of brand attitudes. Study 4 provides an additional test that more directly, experimentally discriminates between our explanation based on perceived inclusivity and the prior explanation based on brand warmth and coolness (Wang and Wei 2025).

Study 4: Disability Inclusion Effect with Regulatory Compliance

Study 4 provided another test of **H2**, while also providing another critical test of brand warmth and coolness as alternative explanations of the disability inclusion effect. To do so, we manipulated the brand's motivation for including a model with a disability in their ad. Specifically, in a *disability-divergent* condition, no information was provided about the brand's motivation (as in our prior studies). We refer to this condition as "divergent" because including a model with a disability deviates from current advertising practices. The results of Study 3 suggest that the brand should be perceived as more inclusive, warmer, and cooler than a control condition with no disability, and consumers' attitudes should be more positive.




A *disability-compliant* condition, however, was designed to critically discriminate between the competing explanations of the disability inclusion effect. We did so by considering the antecedents of brand warmth and coolness. According to Wang and Wei (2025), when brands feature models with disabilities, they are perceived as norm-breaking because they challenge traditional beauty standards. Brands that break norms are perceived as cool, and cool brands tend to elicit positive attitudes (Warren and Campbell 2014). Moreover, Wang and Wei argue that such disability representation signals that the brand has benevolent intentions, aiming to give visibility to an underrepresented group. Brands with benevolent intentions are perceived as warm, and warm brands tend to elicit positive attitudes (Kervyn, Fiske, and Malone 2012).

However, these positive effects can diminish if consumers perceive that the brand's motivation for representing disability is externally driven rather than intrinsic, such as if representation of disability were mandated by some regulation. In that case, the brand would no longer be perceived as having particularly benevolent intentions nor as breaking norms, and hence the brand should not be seen as especially warm or cool. We operationalized such disability-compliance by presenting a news brief describing a restaurant chain that included in their ad a customer using a wheelchair (disability-divergent condition) in order to comply with a new European Inclusive Advertising regulation (disability-compliant condition). In both conditions, the person with a disability was portrayed dining at a restaurant with friends, thereby depicting disability in a socially inclusive, non-stigmatizing way and holding legitimacy constant across conditions. This framing is consistent with disability-inclusive communication guidance from the United Nations (United Nations 2022). If the disability inclusion effect is due to the brand's perceived warmth and/or coolness, then the effect should occur in the disability-divergent condition but not in the disability-compliant condition.

According to our theorizing, in contrast, what matters is not a brand's intention per se, but whether its actions are perceived to effectively include people with disabilities. Accordingly, consumers may view a brand as effectively inclusive whether the brand features people with disabilities voluntarily or does so to comply with industry mandated quotas, because both routes can produce the same perceived outcome—meaningful, concrete inclusion. This logic is

consistent with Nunes et al.'s (2021) concept of authenticity, whereby a brand can be perceived as authentically supportive of disability inclusion insofar as it effectively complies with market rules (e.g., quotas), even in absence of intrinsic motivation (i.e., integrity). Thus, if the disability inclusion effect is due to perceived effective inclusivity, then it should occur in both conditions.

Figure 6: Stimuli, Study 4.

<p>Control</p>	<p>Pastamasta Kitchen Features Patron in Latest Campaign.</p> <p>Amsterdam, 8 February 2026 — Casual dining chain Pastamasta Kitchen has refreshed its "Ready for Lunch" advertisement to feature a real customer in their campaign.</p> 
<p>Disability-Divergent</p>	<p>Pastamasta Kitchen Features Wheelchair-Using Patron in Latest Campaign.</p> <p>Amsterdam, 8 February 2026 — Casual dining chain Pastamasta Kitchen has refreshed its "Ready for Lunch" advertisement to feature a real customer who uses a manual wheelchair in their campaign.</p> 
<p>Disability-Compliant</p>	<p>Pastamasta Kitchen Features Wheelchair-Using Patron in Latest Campaign, Citing New EU Regulations.</p> <p>Amsterdam, 8 February 2026 — Casual dining chain Pastamasta Kitchen has refreshed its "Ready for Lunch" advertisement to feature a real customer who uses a manual wheelchair in their campaign, saying the move helps it comply with the European Inclusive Advertising Standard (EIAS) that came into force this spring.</p> 

Method

Participants. We recruited 455 UK residents ($M_{\text{age}} = 43.83$ years, $SD = 14.44$; 57% female; 12.5 % with a disability: 5% mental, 4% physical, 3% both) on Prolific. As preregistered, four respondents who failed the attention check were excluded from analyses. Participants were randomly assigned to the control, disability-divergent, or disability-compliant condition.

Stimuli. We created two versions of a fictitious ad by superimposing a fictitious “Pastamasta” logo onto a photo of a restaurant that included a diner in a wheelchair. We then modified that *disability ad* to create a *control ad* by removing the wheel from the diner’s wheelchair (see Figure 6).

Procedure. In the control condition, participants simply read a news brief describing that Pastamasta featured one of their customers in their ad campaign, and they viewed the control ad without any visible disability. In the disability-divergent condition, participants instead read a news brief describing that Pastamasta featured one of their customers using a wheelchair in their ad campaign, and they viewed the disability ad. In the disability-compliant condition, participants read a news brief stating that Pastamasta featured one of their customers using a wheelchair in their ad campaign to comply with the (fictitious) European Inclusive Advertising Standards. After reading the scenario and viewing the ad, participants completed an attention check (as in Study 3) and then rated their attitude toward the ad and brand (as in Study 3; 6 items; 0-100 slider scale; $\alpha = .96$) and their perceptions of the brand’s effective inclusivity (as in Study 3; 3 items; 1-7 Likert scale; $\alpha = .89$).⁴ Finally, participants reported their demographics (as in our prior studies).

Brand warmth and coolness. Given that the theoretical purpose of the disability-compliant condition was to test for the disability inclusion effect when the brand is not perceived as warm or cool, we presented the three stimuli to an independent group of 300 participants (between-participants; see Web Appendix D for detail), and we measured the brand’s perceived warmth and coolness, using the measures of Wang and Wei (2025). Results are summarized in Table 2. Relative to the control condition, the disability-divergent condition did not significantly increase the brand’s perceived warmth, $t(299) = 1.56, p = .119, d = 0.18$, or coolness, $t(299) = 1.76, p = .080, d = 0.20$. Relative to the control condition, the disability-compliant condition also had no significant effect on the brand’s perceived warmth, $t(298) = -1.29, p = .195, d = -0.15$, or coolness, $t(298) = -0.66, p = .507, d = -0.08$. Finally, relative to the disability-compliant condition, the disability-divergent condition significantly increased both the brand’s warmth, $t(299) = 2.70, p = .007, d = 0.28$, and its coolness, $t(299) = 2.39, p = .017, d = 0.31$. Thus, if the disability inclusion effect is due to perceived warmth and/or coolness, then (i) the disability-divergent condition should not exhibit the effect, (ii) the disability-compliant condition should not exhibit the effect, and (iii) the disability-divergent condition should elicit more positive attitudes than the disability-compliant condition.

Table 2. Mean (SD) warmth, coolness, inclusivity, and attitudes in Study 4.

	Warmth	Coolness	Inclusivity	Attitudes
Control	5.61 (0.84)	4.92 (1.19)	4.94 (1.06)	65.01 (18.71)
Disability-Divergent	5.76 (0.88)	5.16 (1.14)	5.66 (0.93)	75.05 (17.30)
Disability-Compliant	5.47 (1.02)	4.83 (1.25)	5.72 (0.92)	71.46 (18.15)

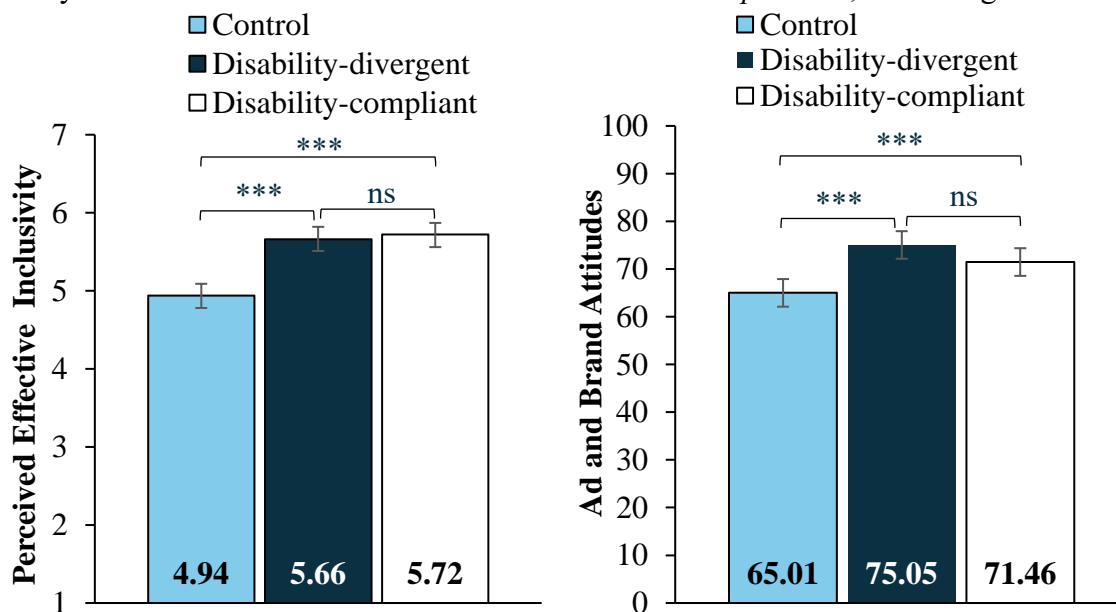
⁴ We rephrased the item “The brand sincerely promotes inclusivity” to “The brand supports inclusivity”.

Results and Discussion

Results are summarized in Table 2 and illustrated in Figure 7.

Perceived effective inclusivity of the brand. As predicted, relative to the control condition, the brand was perceived as significantly more inclusive in both the disability-divergent condition, $t(299) = 6.18, p < .001, d = .71$, and the disability-compliant condition, $t(299) = 6.80, p < .001, d = .79$. Critically, the brand appeared equally effectively inclusive regardless of whether the disability inclusion was voluntary (i.e., disability-divergent) or to meet a mandated quota (i.e., disability-compliant), $t(299) = .67, p = .518, d = .08$. Thus, if the disability inclusion effect is due to perceived effective inclusivity, then both disability conditions should exhibit the effect.

Figure 7. Perceived effective inclusivity of the brand and attitudes toward the ad and brand in Study 4. Error bars denote 95% confidence intervals. *** $p < .001$; ns: nonsignificant.



Disability inclusion effect. Relative to the control ad, the disability-divergent ad significantly improved attitudes, $t(299) = 4.84, p < .001, d = .56$. This result replicates our prior studies. More critically, as predicted, attitudes were also significantly more positive in the disability-compliant condition than in the control condition, $t(299) = 3.03, p < .001, d = .35$. Finally, attitudes were marginally more positive in the disability-divergent condition than in the disability-compliant condition, $t(299) = 1.76, p = .079, d = .20$. This marginal difference suggests that consumers may evaluate brands more positively when disability representation is perceived as voluntary rather than mandatory, even though both cases significantly improve attitudes.

Mediation by perceived effective inclusivity. We further examined whether the perceived effective inclusivity of the brand mediated the disability inclusion effect. The presumed mediator (perceived effective inclusivity) and the dependent variable (attitudes) correlated moderately ($r = .59, p < .001$), indicating sufficient discriminant validity for meaningful mediation (Pieters 2017). We conducted two bootstrap mediation analyses (Hayes 2017, PROCESS model 4, 10K samples). A first analysis comparing the control and disability-divergent conditions revealed that divergent disability representation significantly increased perceived effective inclusivity ($B = .71, SE = .11, CI_{95} = [0.48, 0.9321]$), which in turn significantly improved attitudes ($B = 12.05,$

SE = 0.78, $CI_{95} = [10.51, 13.59]$). Thus, the indirect effect was significant ($B = 8.54$, SE = 1.42, $CI_{95} = [5.7357, 11.38]$). A second analysis comparing the control and disability-compliant conditions revealed that compliant disability representation significantly increased perceived effective inclusivity ($B = .39$, SE = .05, $CI_{95} = [0.28, .50]$), which in turn significantly improved attitudes ($B = 11.87$, SE = 0.83, $CI_{95} = [10.23, 13.50]$). Thus, the indirect effect was significant ($B = 4.61$, SE = 0.88, $CI_{95} = [0.34, 3.13]$). Regardless of whether the brand included the person with a disability voluntarily (disability-divergent) or mandatorily (disability-compliant), the brand's perceived effective inclusivity mediated the positive effect of disability inclusion on consumers' attitudes.

Discussion. Our findings indicate that conforming to industry norms or regulations to represent disability enhances perceived effective inclusivity and thus promotes positive consumer attitudes, supporting both **H1** and **H2**. Moreover, this positive impact of disability representation persists even when the brand is not perceived as warm and/or cool, thus revealing that perceived effective inclusivity accurately predicts the disability inclusion effect in contexts where warmth and coolness instead predict that it would not occur.

The prior research on disability inclusion in advertising has focused mostly on *mere visibility* of people with disabilities. An important practical factor that the prior literature has not thoroughly investigated, however, is how exactly to represent disabilities in advertising. In Studies 5 and 6, we instead focus on *effective inclusivity* of people with disabilities. That is, we investigate how to represent disabilities in ways that may support and benefit people with disabilities, rather than merely increasing their visibility in advertising .

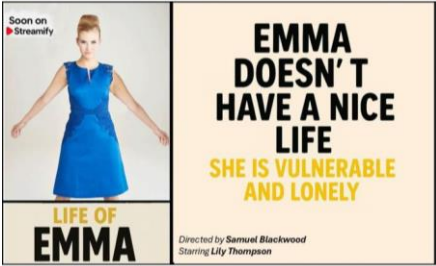
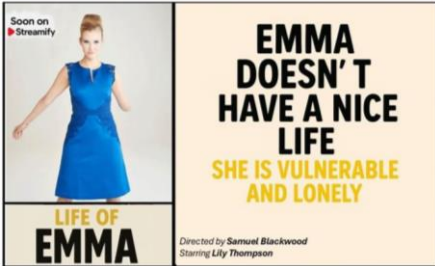
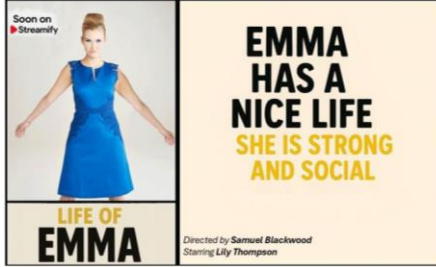
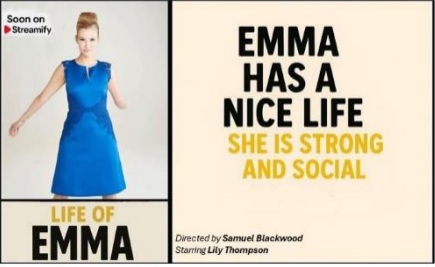
Study 5: Moderation by Vulnerability-Focused Portrayal

Study 5 tests the impact of messaging on the disability inclusion effect. Participants read a news brief about a new show portraying the life of either a single mother (control condition) or a woman with a disability (disability condition). Additionally, that lead role was advertised with messaging that focused on either the person's vulnerability and difficulties (*vulnerability-focused* condition) or their societal integration and participation (*agency-focused* condition; see Figure 8). If mere visibility of disability is sufficient to elicit the disability inclusion effect, then both vulnerability- and agency-focused messaging should elicit the effect. Vulnerability-focused messaging reinforces negative stereotypes about people with disabilities and is therefore likely to be perceived as less supportive of disability. In contrast, agency-focused messaging challenges those negative stereotypes and is more likely to be perceived as supportive of disability. We thus predicted that vulnerability-focused messaging would attenuate the disability inclusion effect (**H3**). Because Wang and Wei (2025) did not explicitly consider how the disability is portrayed, we also measured the brand's perceived warmth and coolness, to examine whether either of them could explain our predicted moderation of the disability inclusion effect.

Method

Participants. We recruited 401 US residents ($M = 38.91$ years, $SD = 12.46$; 66% female; 15% with a disability: 6% mental, 4% physical, 5% both) on Prolific. Three participants who failed the attention check were excluded, as preregistered, leaving 398 valid responses. Participants were randomly assigned to conditions of a 2 (model: control vs. disability) \times 2 (message: vulnerability-focused vs. agency-focused) between-participants design.

Figure 8. Stimuli used in Study 5.

	Control	Disability
Scenario	<p>Streamify is preparing to launch a new TV series titled "The Life of Emma," featuring acclaimed actress Lily Thompson in the lead role as a single mother.</p> <p>During the launch, the company has emphasized the importance of representation in media by announcing an expansion in the number of TV series featuring female actresses in different roles.</p>	<p>Streamify is preparing to launch a new TV series titled "The Life of Emma," featuring acclaimed disabled actress Lily Thompson in the lead role as a woman living with a disability.</p> <p>During the launch, the company has emphasized the importance of representation in media by announcing an expansion in the number of TV series featuring individuals with disabilities in different roles.</p>
Vulnerability-Focus		
Agency-Focus		

Procedure. Participants first read a news brief describing Streamify, a fictitious entertainment platform launching a new TV series (see Figure 8). The brief was intended to communicate to participants that the brand had benevolent intentions (i.e., warmth), either because the leading role portrays a single mother (*control* model) or because it portrays a person with a disability (*disability* model). Within the ad itself, we additionally manipulated whether the representation was focused on the person’s vulnerability or agency and societal integration. Specifically, participants read either that the lead character “doesn’t have a nice life” and “is vulnerable and lonely” (*vulnerability-focused* message), or that the character “has a nice life” and “is strong and social” (*agency-focused* message). After viewing the ad, participants rated their attitude toward the ad and the brand (6 items; 0-100 slider scale; $\alpha = .96$), and then their perception of the brand’s effective inclusivity (3 items; 1-5 Likert scale; $\alpha = .91$), as in Study 3. In addition, participants then rated how much they considered the message in the ad to be stereotypical, on a scale from 1 (not at all) to 7 (very). The study concluded with demographic questions (as in our prior studies).

Brand warmth and coolness. We also replicated this procedure, but with participants ($N = 400$) instead rating the brand’s perceived warmth (2 items; $\alpha = .94$) and coolness (2 items; $\alpha =$

.85), as in Study 4. See Web Appendix E for full detail. Results are summarized in Table 3. The main effect of model was significant on both warmth ($F(1, 394) = 6.77, p = .010, \eta^2 = .017$) and coolness ($F(1, 394) = 7.99, p = .005, \eta^2 = .020$): The brand appeared warmer and cooler when the model had a disability than when the model was a single mother. The main effect of message was also significant on both warmth ($F(1, 394) = 37.30, p < .001, \eta^2 = .086$) and coolness ($F(1, 394) = 21.69, p < .001, \eta^2 = .052$): Unsurprisingly, the brand appeared warmer and cooler when the message focused on the person's agency than on their vulnerability. Crucially, however, neither warmth ($F(1, 394) = 2.45, p = .118, \eta^2 = .008$) nor coolness ($F(1, 394) = .47, p = .492, \eta^2 = .001$) exhibited the interaction that our account based on perceived inclusivity predicts. Thus, if the message (vulnerability-focused vs agency-focused) moderates the disability inclusion effect, that moderation would not be attributable to warmth and/or coolness.

Table 3. Mean (SD) warmth, coolness, inclusivity, and attitudes in Study 5.

Portrayal Focus	Model	Warmth	Coolness	Inclusivity	Attitudes
Vulnerability	Control	4.04 (1.47)	3.70 (1.45)	2.65 (0.98)	35.32 (25.46)
	Disability	4.60 (1.46)	4.22 (1.72)	3.13 (1.03)	39.51 (24.82)
Agency	Control	5.07 (1.28)	4.48 (1.40)	2.78 (0.99)	38.67 (25.40)
	Disability	5.21 (1.12)	4.80 (1.27)	3.71 (0.85)	53.37 (26.06)

Results and Discussion

Results are summarized in Table 3 and illustrated in Figure 9. As preregistered, the data were analyzed via 2 (model) \times 2 (message) ANOVAs and independent samples *t*-tests.

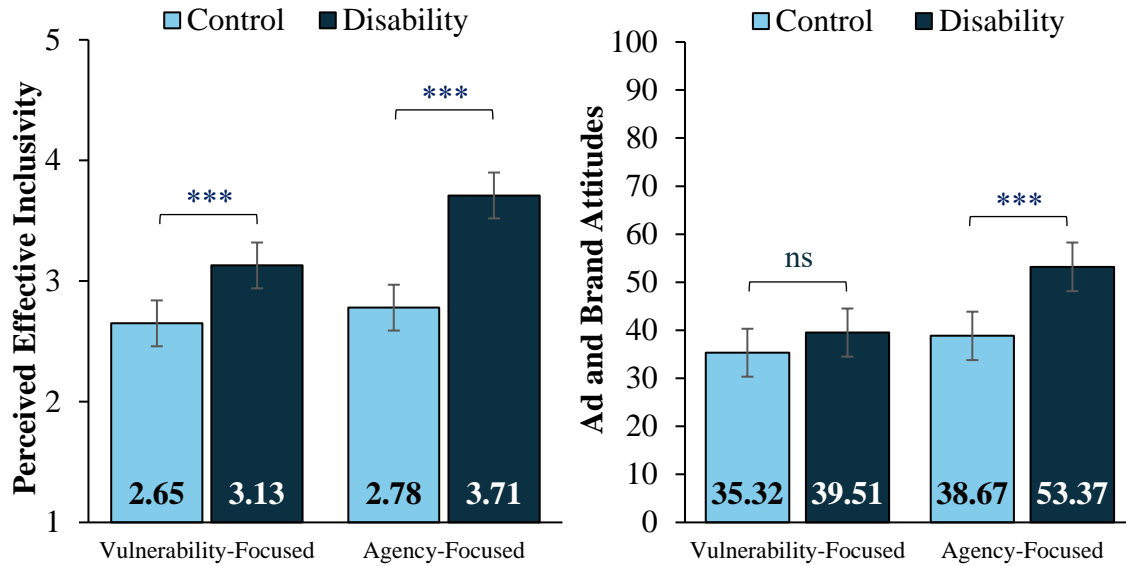
Perceived effective inclusivity of the brand. A main effect of model, $F(1, 394) = 52.17, p < .001, \eta^2 = .12$, indicated that the brand was perceived as more inclusive when the model had a disability than when the model portrayed a single mother (i.e., control). The main effect of message was also significant, $F(1, 394) = 13.18, p < .001, \eta^2 = .03$, but more importantly, the predicted interaction was significant too, $F(1, 394) = 5.21, p = .023, \eta^2 = .01$. Specifically, when the message was agency-focused, the brand was perceived as far more effectively inclusive with the disability model than with the control model, $t(195) = 6.99, p < .001, d = 0.99$. This finding replicates the result of Studies 3 and 4. When the message was vulnerability-focused, the effect on perceived inclusivity was still significant, but it was significantly smaller, $t(199) = 3.38, p < .001, d = .48$.

Disability inclusion effect. The main effects of both model, $F(1, 394) = 13.19, p < .001, \eta^2 = .03$, and message, $F(1, 394) = 11.33, p < .001, \eta^2 = .03$, on attitudes toward the ad and brand were significant. More importantly, the predicted interaction was also significant, $F(1, 394) = 3.97, p = .047, \eta^2 = .01$. Specifically, when the message was agency-focused, attitudes were significantly more positive with the disability model than with the control model, $t(195) = 3.91, p < .001, d = 0.56$. When instead the message reinforced the models' negative stereotype (i.e., vulnerability-focus), the effect on attitudes was suppressed, $t(199) = 1.18, p = .239, d = 0.17$.

Stereotypicality. A main effect of model, $F(1, 394) = 11.98, p < .001, \eta^2 = .029$, indicated that the ad was perceived as less stereotypical when the model had a disability than when the model portrayed a single mother (i.e., control). The main effect of message was not significant, $F(1, 394) = 1.11, p = .294, \eta^2 = .00$, but the interaction was significant, $F(1, 394) = 7.08, p = .008, \eta^2 = .02$. For the disability model, the vulnerability-focused ($M = 3.09, SD = 1.26$) portrayal was perceived as more stereotypical than the agency-focused portrayal ($M = 2.66, SD$

= 1.00) $t(198) = 2.67, p = .008, d = 0.38$. For the control model, there was no difference in stereotypicality between the agency-focused ($M = 3.23, SD = 1.17$) and the vulnerability-focused portrayal ($M = 2.97, SD = 1.11$) $t(199) = 1.62, p = .108, d = 0.23$. These findings indicate that a vulnerability-focused portrayal perpetuates stereotypes about people with disabilities, but not about single mothers.

Figure 9. Perceived effective inclusivity of the brand and attitudes toward the ad and brand in Study 5. Error bars denote 95% confidence intervals. *** $p < .001$; ns: nonsignificant.



Moderated mediation by perceived effective inclusivity. We also tested whether the perceived effective inclusivity of the brand mediated the disability inclusion effect, and whether the portrayal focus moderated this process. The presumed mediator (perceived effective inclusivity) and dependent variable (consumer attitudes) correlated moderately ($r = .531, p < .001$), indicating sufficient discriminant validity for meaningful mediation (Peters, 2017). We therefore conducted a moderated mediation analysis (Hayes 2018, PROCESS model 7, 10K samples), with the model as the independent variable (control = 0, disability = 1), perceived effective inclusivity as the mediator, attitudes as the dependent variable, and message (agency-focused = 0, vulnerability-focused = 1) as the A-path moderator. The index of moderated mediation was significant and negative, $B = -5.92, SE = 2.69, CI_{95} = [-11.30, -0.71]$. Specifically, when the message was agency-focused, the indirect (mediation) effect of model-type on attitudes was significant and positive, $B = 12.32, SE = 2.14, CI_{95} = [8.29, 16.69]$, indicating that the model with a disability improved attitudes via perceived inclusivity. This result replicates that of Studies 3 and 4. When the message was vulnerability-focused, this indirect effect via perceived effective inclusivity was again significant, but it was significantly attenuated, $B = 6.41, SE = 1.96, CI_{95} = [2.62, 10.33]$.

Discussion. The results of Study 5 demonstrate that positive portrayal is necessary for the disability inclusion effect. When a model with a disability is included in the brand's ad campaign, the brand is perceived as effectively inclusive, which elicits relatively positive attitudes toward the ad and brand. These results support **H1** and **H2**. However, when the portrayal of disability reinforces a negative stereotype, the brand's perceived effective inclusivity is diminished, and hence the positive effect on attitudes is suppressed. This result supports **H3**.

Critically, because neither brand warmth nor brand coolness exhibited this interaction, neither can explain the moderation by disability portrayal. Study 5 therefore demonstrates a context in which warmth and coolness predict the disability inclusion effect, but it does not occur.

Study 6: Moderation by Inconspicuous Communication

Study 6 tested another communication factor that may moderate the disability inclusion effect: how conspicuous the communication is. For instance, in 2022, a Victoria's Secret ad campaign featured Sofia Jirau, a model with Down Syndrome. Text placed prominently in the ad announced that she was the brand's "first model with Down Syndrome" (Acevedo 2022), thus conspicuously disclosing the model's disability. Is this communication strategy effective? Because disability is a socially stigmatized attribute, conspicuously invoking it when describing a person can reduce that person "from a whole and usual person to a tainted, discounted one" (Goffman 1963). Moreover, conspicuous communication can transform disability into an identity label, reinforcing the stigma and separation from people without disabilities (Link and Phelan 2001). In this sense, such communication may signal the brand's intention to give visibility to people with disabilities, but it may also harm the disabled community by reinforcing stigma, ultimately making the action appear tokenistic. We conjecture that by conspicuously highlighting the model's disability in a tokenizing manner, Victoria's Secret led consumers to discount the credibility and impact of the promotion, rendering the brand's inclusion attempt less authentic and effectively inclusive (cf., Nunes et al. 2021).

Study 6 tested this prediction. Invisible disabilities, such as hearing impairment or autism, provide a natural context for manipulating the extent to which a disability is highlighted in an ad. To mimic Victoria's Secret's real-world brand transgression, we operationalized conspicuous communication by presenting a news brief describing the model's disability (autism) in the inconspicuous conditions (see Figure 10), or we presented that information in the ad itself for the conspicuous conditions. We predicted that conspicuously including the disability information in the ad itself would decrease the brand's perceived effective inclusivity, and thus it would attenuate the disability inclusion effect (**H4**). We also measured the brand's perceived warmth and coolness, to examine whether either of these factors could explain our predicted moderation of the disability inclusion effect (cf. Wang and Wei 2025).

Method





Participants. We recruited 403 US residents (43.42 years, SD = 14.59; 58% females; 13% with a disability: 6% mental, 4% physical, 3% both) on Prolific. Four participants failed the attention check and, as preregistered, were screened out from the study, leaving 399 valid responses. Participants were randomly assigned to conditions of the 2 (ad-type: control vs. disability) × 2 (communication: conspicuous vs. inconspicuous) between-participants design.

Stimuli. We used an ad featuring a model on the autism spectrum. In the *inconspicuous* conditions, participants learned about the model's name only (control condition) or name and disability (disability condition) in a separate news-style brief prior to viewing and evaluating the ad. In the *conspicuous* conditions, that information was embedded in the ad itself (see Figure 10).

Procedure. Participants read the study instructions and completed a captcha. Participants in the *inconspicuous* conditions first read a news brief, designed to resemble an online news story, about a fictitious brand's new advertising model. In the *control* condition, the story simply revealed the model and her new partnership with the brand. In the *disability* condition, the story additionally revealed that the model was on the autism spectrum. After reading this news story, participants advanced to the next page, where they viewed the target ad. Participants in the

conspicuous conditions did not read the news brief but instead viewed an ad that revealed either the model’s name only (control) or the model’s name and disability (disability).

Figure 10. Stimuli of Study 6.

	Control	Disability
Inconspicuous	<p>Claire Roger is Bloom Parfum's Muse Bloom Parfum proudly welcomes Claire Roger as its latest model, embodying the essence of timeless beauty and sophistication. Together, they redefine the allure of luxury in the world of perfumery.</p> 	<p>Claire Roger, a model on the autism spectrum, is Bloom Parfum's Muse Bloom Parfum proudly welcomes Claire Roger, a model on the autism spectrum, as its latest model, embodying the essence of timeless beauty and sophistication. Together, they redefine the allure of luxury in the world of perfumery.</p> 
Conspicuous		

After viewing the ad, participants rated their attitudes toward the ad and the brand (as in Studies 3-5; 6 items; 1-7 Likert scale; $\alpha = .96$), and their perception of the brand’s inclusivity (as in Studies 3-5; 3 items; 1-5 Likert scale; $\alpha = .91$). Finally, after exposure to the disability ad, we included a manipulation check of the model’s disability (“Did we inform you that the model in the ad is on the autism spectrum?” Yes vs. No). The study concluded with demographics, as in our prior studies.

Brand warmth and coolness. We also replicated this procedure, but with participants ($N = 389$) instead rating the brand’s perceived warmth (2 items; $\alpha = .90$) and coolness (2 items; $\alpha = .87$), as in Studies 3-5. See Web Appendix F for full detail. Results are summarized in Table 4. A 2 (model) \times 2 (communication) ANOVA on warmth showed significant main effects of model, $F(1, 385) = 25.75, p < .001, \eta^2 = .063$, and communication, $F(1, 385) = 23.82, p < .001, \eta^2 = .058$. More importantly, the interaction was not significant, $F(1, 385) = .78, p = .379, \eta^2 = .002$.

For coolness, there was no main effect of model, $F(1, 385) = .78, p = .379, \eta^2 = .002$, but the main effect of communication was significant, $F(1, 385) = 10.52, p < .001, \eta^2 = .027$. Crucially, however, the interaction was not significant, $F(1, 385) = .09, p = .760, \eta^2 = .000$. Thus, if the communication (conspicuous vs. inconspicuous) moderates the disability inclusion effect, that moderation would not be attributable to warmth and/or coolness (cf. Wang and Wei 2025).

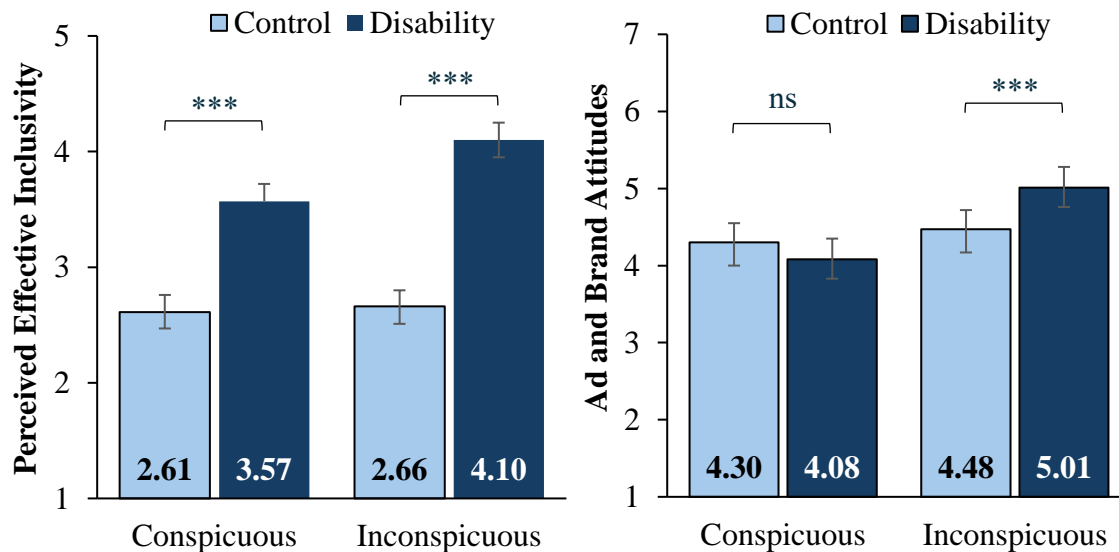
Table 4. Mean (SD) warmth, coolness, inclusivity, and attitudes in Study 6.

Communication	Model	Warmth	Coolness	Inclusivity	Attitudes
Conspicuous	Control	3.38 (1.33)	4.20 (1.53)	2.61 (0.75)	4.30 (1.45)
	Disability	4.20 (1.48)	4.28 (1.41)	3.57 (0.81)	4.08 (1.25)
Inconspicuous	Control	4.17 (1.34)	4.62 (1.26)	2.66 (0.70)	4.48 (1.20)
	Disability	4.76 (1.37)	4.80 (1.42)	4.10 (0.68)	5.01 (1.23)

Results and Discussion

An additional four participants failed the manipulation check of whether the model had a disability. As preregistered, we also excluded their responses from the analysis, leaving 395 complete responses for analysis. Results are illustrated in Figure 10.

Figure 10. Perceived effective inclusivity of the brand, and ad and brand attitudes in Study 6. Error bars denote 95% confidence intervals. *** $p < .001$; ns: non-significant.



Perceived effective inclusivity. A 2 (ad-type) \times 2 (communication) ANOVA on the perceived effective inclusivity of the brand revealed significant main effects of ad-type, $F(1, 391) = 258.38, p < .001, \eta^2 = .398$, and communication, $F(1, 391) = 15.33, p < .001, \eta^2 = .038$. More importantly, as predicted, the interaction was also significant, $F(1, 391) = 9.97, p = .002, \eta^2 = .025$. When information about the model was communicated in the news brief (inconspicuous conditions), the disability condition was perceived as far more inclusive than the control condition, $t(195) = 14.51, p < .001, d = 2.06$. When the model's information was disclosed in the ad itself (conspicuous conditions), the effect on inclusivity was significantly attenuated, $t(196) = 8.63, p < .001, d = 1.23$.

Disability inclusion effect. A 2 (ad-type) \times 2 (communication) ANOVA on attitudes revealed no significant main effect of ad-type, $F(1, 391) = 1.50, p = .221, \eta^2 = .004$, but a significant main effect of communication, $F(1, 391) = 17.74, p < .001, \eta^2 = .043$. More importantly, the predicted interaction was significant, $F(1, 391) = 8.44, p = .004, \eta^2 = .021$. The disability inclusion effect was observed only when information about the model's disability was communicated inconspicuously in the news brief, $t(195) = 3.09, p = .002, d = 0.44$. When the model's disability was disclosed conspicuously in the ad itself, the disability inclusion effect vanished, $t(196) = 1.13, p = .261, d = -0.16$.

Moderated mediation. We also tested whether the perceived inclusivity of the brand mediated the disability inclusion effect and whether conspicuousness of the communication moderated this process. The presumed mediator (perceived effective inclusivity) and dependent variable (consumer attitudes) correlated moderately ($r = .438, p < .001$), indicating sufficient discriminant validity for meaningful mediation (Pieters 2017). We therefore conducted a moderated mediation analysis (Hayes 2018, model 7, 10K samples), with the model as the independent variable (control = 0, disability = 1), perceived effective inclusivity as the mediator, attitudes as the dependent variable, and communication (inconspicuous = 0, conspicuous = 1) as the A-path moderator. The index of moderated mediation was significant and negative, $B = -.42, SE = .14, CI_{95} = [-.71, -.16]$. Specifically, in the inconspicuous condition, the indirect (mediation) effect of ad-type on attitudes was significant and positive, $B = 1.28, SE = .13, CI_{95} = [1.03, 1.55]$, suggesting that the disability ad improved attitudes via perceived effective inclusivity of the brand. In the conspicuous condition, the indirect effect was significant but smaller, $B = .86, SE = .11, CI_{95} = [.66, 1.08]$.

Robustness check. We also replicated the analyses, but additionally including the four participants who failed the manipulation check, and the results were virtually identical. The ANOVA on perceived effective inclusivity revealed significant main effects of ad-type, $F(1, 395) = 260.17, p < .001, \eta^2 = .397$, and communication, $F(1, 395) = 15.40, p < .001, \eta^2 = .038$. The interaction was also significant, $F(1, 395) = 9.98, p = .002, \eta^2 = .025$. The ANOVA on attitudes showed a significant main effect of communication, $F(1, 395) = 17.12, p < .001, \eta^2 = .042$, whereas the main effect of model was not significant, $F(1, 395) = 1.30, p = .255, \eta^2 = .003$. The interaction was again significant, $F(1, 395) = 8.01, p = .005, \eta^2 = .020$.

Discussion. Results of Study 6 demonstrate that when a model with a disability is presented like any other model in an ad, the brand appears to support effective inclusivity, and hence consumers positively evaluate the ad and the brand. However, when the model's disability is conspicuously presented in the ad itself, the brand appears to be less effectively inclusive, thus eliminating the disability inclusion effect. This result supports **H4**. Critically, because neither brand warmth nor brand coolness exhibited this interaction, neither of those factors can explain the moderation by conspicuous communication of the disability. Study 6 therefore demonstrates another context in which warmth and coolness predict the disability inclusion effect, but it does not occur.

General Discussion

This research documents a large, positive, robust response of consumers to brands that include people with disabilities in their advertising: Across nine preregistered experiments (including three Web Studies described next), our research shows that disability-inclusive ads enhance consumers' attitudes toward the ad, brand, and product. Before highlighting the contributions and implications of this research, we briefly report a few additional studies of the disability inclusion effect.

Additional Studies of the Disability Inclusion Effect

We report here three additional web studies that are theoretically informative or managerially relevant. For details, see the Web Appendix. Web Study 1 conceptually replicates and generalizes Study 6, which demonstrated that when a perfume brand conspicuously communicated an invisible disability (e.g., autism) within the ad itself, the disability inclusion effect disappeared. Visible disabilities, such as a missing limb, often do not require any explicit communication, and hence the effect observed in Study 6 could plausibly be limited to invisible disabilities. Web Study 1 therefore uses a visible disability (i.e., limb difference) in an ad for a clothing brand (cf. Wang and Wei 2025), and again the disability inclusion effect was significantly attenuated. Thus, the communication of the disability appears to be critical for the disability inclusion effect, regardless of whether the disability is visible or invisible.

Web Study 2 examines the role of public representation in the disability inclusion effect. In this study we contrast a person with a disability from an unhoused (a.k.a. “homeless”) person. Although people with disabilities and unhoused people are equally marginalized, a key difference is that public representation is perceived to reduce the marginalization of people with disabilities, whereas financial assistance is more important for unhoused people. Consequently, Web Study 2 shows that a brand must publicly represent the disability in its ad campaign to elicit the disability inclusion effect, whereas simply hiring and paying an unhoused model improves consumer attitudes. This study demonstrates the necessity of public representation for the disability inclusion effect.

We argue that consumers selectively support brands that are effectively inclusive (i.e., those that support and potentially benefit people with a disability) because most consumers themselves support their social inclusivity. Thus, consumers’ individual differences in the support of inclusivity should moderate the effect. Web Study 3 tested this prediction. As predicted, the disability inclusion effect was significantly larger among participants who more strongly support inclusivity, and in fact a large majority of consumers exhibited the effect. Only a small minority who strongly reject inclusivity showed a negative effect of disability inclusion. Thus, the effect generalizes across most consumers.

In what follows, we first delineate our theoretical contributions and then the managerial implications of our results. We next consider the implications of our research for consumer welfare before concluding with some important limitations of this research.

Theoretical Contributions

The present research provides several theoretical contributions. First, this research vastly broadens the scope of the disability inclusion effect. Whereas the prior studies focused narrowly on fashion brands (Wang and Wei 2025), visible disabilities (Klucarova 2024), and/or young consumers (Muralidharan et al. 2024; Qayyum et al. 2023), our studies document the generality of the effect. We showed that the effect generalizes across (i) a broad range of products and services (i.e., clothing, energy drinks, financial services, shower gels, perfumes, restaurants, TV series), (ii) a broad range of endorsers (i.e., actors, customers, models), (iii) a broad range of visible and invisible disabilities (i.e., autism, limb difference, wheelchair user), and (iv) the vast majority of consumers, regardless of their basic demographic characteristics (e.g., age, gender, presence or absence of disability). In fact, we found a positive effect for all but a very small minority of consumers who oppose social inclusivity. Thus, we demonstrated that the effect is quite general across product-, endorser-, disability-, and consumer-types.

This research also provides evidence of a novel psychological process underlying the

disability inclusion effect. Wang and Wei (2025) explained the effect in terms of brand warmth and coolness: Representing a disability in an ad signals the brand's benevolent intentions (i.e., warmth) and appropriately deviates from norms (i.e., coolness). We replicated those effects (see Study 3), but we also showed that they cannot explain the disability inclusion effect. In addition to demonstrating the effect in contexts beyond where warmth and coolness would predict them (e.g., in non-fashion brands, and where norms are strictly upheld), we also showed that warmth and coolness cannot meaningfully mediate the disability inclusion effect, because they lack sufficient discriminant validity from consumer attitudes. We further showed that the effect occurs in some contexts where the brand is not perceived as warm or cool (Study 4), and conversely, the effect does not occur in other contexts where the brand is perceived as warm and cool (Studies 5 and 6). That is, our research shows that warmth and coolness are neither necessary nor sufficient for the disability inclusion effect.

We argue instead that the effect operates via the brand's perceived effective inclusivity. Specifically, we argue that consumers value disability representation that supports and potentially benefits people with a disability (i.e., effective inclusivity). Most consumers want to support people with disabilities (Van der Sluis et al. 2024). Even relative to other marginalized groups, people with disabilities are especially underrepresented in the media (Campbell et al. 2023), and they often feel "invisible" (Chouinard 1997). Thus, consumers can simply and genuinely help people with disabilities by supporting brands that represent them. Our research therefore shows that the brand's perceived effective inclusivity underlies the disability inclusion effect. First, we show that perceived effective inclusivity mediates the effect. Second, we show that when disability representation is mandated by industry regulation (e.g., a DEI quota), consumers still perceive the brand as effectively inclusive, inducing the disability inclusion effect even though the brand is not perceived as warm or cool in this context (Study 4). Moreover, we also show that several factors that moderate perceived inclusivity also moderate the disability inclusion effect. For instance, the effect disappears when (i) the portrayal of disability reinforces negative stereotypes of vulnerability or impairment (Study 5), and (ii) the brand conspicuously highlights the model's disability in the ad itself (Study 6, Web Study 1). Thus, our focus on perceived inclusivity revealed some contexts in which the disability inclusion effect does occur despite warmth and coolness predicting that it would not, and other contexts in which the effect does not occur despite warmth and coolness predicting that it would. These moderators are not only theoretically informative, but also managerially important.

Managerial Implications

Distinguishing the perceived effective inclusivity mechanism from the fashion-specific warmth and coolness account (Wang and Wei 2025) is managerially critical: Any marketing factor that moderates perceived inclusivity may be crucial for managers to realize the strategic benefits of disability inclusion. Critically, mere visibility (i.e., simply including an endorser with a disability) does not necessarily improve consumer attitudes. To enhance attitudes, the representation must meaningfully support or benefit people with disabilities in a way that fosters societal acceptance; that is, it must be effectively inclusive. We investigated three factors that may determine whether representation is perceived as effectively inclusive:

1. *Mandatory disability inclusion.* Whether a brand includes people with a disability in their advertisements voluntarily, or mandatorily to comply with industry standards (e.g., DEI quotas), does not appear to affect consumers' perceptions of the brand's effective inclusivity, and hence this factor does not diminish the positive effects of disability inclusion.

2. *Agentic Portrayal of Disability*. Representation that emphasizes resilience, agency, and competence, as Diesel did in their 2014 “Reboot” campaign with fashion model Jillian Mercado, facilitates normalization and societal inclusion of people with disabilities, and hence engenders a disability inclusion effect. Conversely, representation emphasizing vulnerability and impairment, as in Telethon charity’s depiction of disabilities as pitiable, does not appear effectively inclusive and hence does not engender positive consumer responses.

3. *Inconspicuous Communication*. How the brand communicates the disability determines whether it is perceived as effectively inclusive or exploitative and tokenistic. Explicit textual labeling of the disability within brand-controlled materials, which we call *conspicuous communication*, can transform disability into an identity label, reinforcing the stigma, and leading the brand to appear exploitative. In contrast, *inconspicuous communication* occurs when a brand’s materials do not mention the disability, and hence either the disability remains implicit, or any mentions appear only in third-party media. Critically, such inconspicuous communication of a disability avoids perceptions of stigmatization and exploitation, leading to the beneficial consumer responses of the disability inclusion effect.

Overall then, in addition to feeling good about doing good, managers can expect strong positive support from consumers for representing disabilities in their marketing communications, even if they do so mandatorily, and especially if the portrayal is focused on agency and the communication of the disability is inconspicuous.

Consumer Welfare

Sixteen percent of the world’s population have disabilities (World Health Organization 2022), yet people with disabilities are rarely included in marketing campaigns (Campbell et al. 2023). The present research reveals that consumers like brands that include people with disabilities in their advertising. This positive effect held across a broad range of products and services, and across a broad range of disabilities. Fully 81% of our participants valued social inclusivity enough to exhibit the disability inclusion effect (see Web Study 3), and the more strongly they valued social inclusivity, the larger was the disability inclusion effect.

By demonstrating to marketing managers that consumers appreciate brands that promote disability, we hope to encourage managers to implement such campaigns. Any success whatsoever in that regard would constitute progress toward greater representation of people with disabilities in the public domain. Greater visibility may also shift public perceptions, countering portrayals of personal tragedy (Darcy, 2002) and pity (Cuddy et al., 2007) and reducing negative stereotyping (Gus, 2020). Marketing campaigns that represent people with disabilities by focusing on their agency rather than vulnerability would be a welcome change. Ultimately, we hope that this research will encourage greater representation of individuals with disabilities within the marketing industry, and also highlight their inherent and equal value as members of society.

Limitations and Future Directions

This research has some limitations, which offer opportunities for further research. In each study, we examined how individual-specific variables like age, gender, and having a disability affect the disability inclusion effect. The results are presented in the Web Appendix. We did not find any consistent patterns in the studies suggesting that these factors impacted the effect of disability inclusion. However, these demographic groups were not equally represented in our sample. Future research could better address this issue by including more balanced samples. A

second limitation is that all the studies were conducted in Western, Educated, Industrialized, Rich, and Democratic (WEIRD) societies, and our analyses aggregated across individuals. Certain types of individuals within these societies, or samples from entirely different cultures, may react differently to models with a disability. Therefore, identifying individual differences and cultural factors that moderate the disability inclusion effect is an important goal that we hope future research will address.

Another limitation is that the present research is set within the temporal context in which the studies were conducted. Stereotypes and stigmata are social constructs that evolve over time (Hutchison et al. 2013). Hence, it remains to be seen whether the disability inclusion effect would persist in some future market (see Goldsmith, Hmurovic, and Lamberton 2023) where the meanings of disability and stigma might change. These types of questions are clearly important, but they are beyond the scope of our current investigation. To be sure, our research has many other limitations, and leaves many other questions unanswered. For instance, under what circumstances might people with disabilities feel exploited by companies that include models with disabilities? Unfortunately, in this single investigation of the disability inclusion effect, we are unable to address many relevant and important questions. More positively, however, we hope that our research will motivate much more research on this important topic.

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WEB APPENDIX

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These materials have been supplied by the authors to aid in the understanding of their paper. The AMA is sharing these materials at the request of the authors.

Web Appendix A: Study 1, Stimuli and Additional Analyses

Figure A1: Stimuli of Study 1. Order of presentation (left vs. right) was randomized.



Demographic Analyses. In Study 1, to further test whether participants' demographic factors influenced their product choice, we ran a logistic regression of choice of the shower gel advertised by a model with a disability (1 = yes, 0 = no) and participants' age (mean centred), gender (1 = males, 2 = females, other/prefer not to say) and disability (1= yes, 0 = no). No significant effects were observed, as reported in Table A1.

Table A1: Logistic regression. † $.05 < p < .10$, * $p < .05$, ** $p < .01$, *** $p < .001$. The table shows beta coefficients (standard errors).

	Choice of shower gel advertised by model with disability
Participants' Gender	-0.38 (0.27)
Participants' Age	-0.00 (0.01)
Participants' Disability	0.36 (0.39)
Log likelihood	341.76
N	252

Web Appendix B: Study 2, Additional Analyses

Demographic Analyses. In Study 2, to further test whether participants' demographic factors influenced their brand choice, we ran a logistic regression of choice of the energy drink advertised by a model with a disability (1 = yes, 0 = no) on the manipulation of public vs. private choice, and participants' age and gender. No significant effects were observed, as reported in Table B1.

Table B1: Logistic regression. † $.05 < p < .1$, * $p < .05$, ** $p < .01$, *** $p < .001$. The table shows beta coefficients (standard errors).

	Choice of energy drink advertised by model with disability
Public vs Private	0.31 (0.22)
Participants' Gender	0.11 (0.23)
Participants' Age	0.03 (0.02)
Log likelihood	460.07
N	354

Web Appendix C: Study 3, Additional Analyses

Table C1: Results of the factor matrix for a PCA, Extraction Method: Maximum Likelihood, with 6 items of attitudes and 3 items measuring inclusivity.

	Factor	
	1	2
Attitudes 1	.900	.523
Attitudes 2	.868	.522
Attitudes 3	.895	.544
Attitudes 4	.964	.518
Attitudes 5	.963	.528
Attitudes 6	.969	.533
Inclusivity 1	.551	.887
Inclusivity 2	.506	.938
Inclusivity 3	.540	.968

Table C2: Results of the factor matrix for a PCA. Extraction Method: Maximum Likelihood, with 6 items of attitudes, 2 items of warmth (measured as in Wang & Wei, 2025) and 2 items of coolness (measured as in Wang & Wei, 2025).

	Factor
	1
Attitudes 1	.918
Attitudes 2	.891
Attitudes 3	.916
Attitudes 4	.946
Attitudes 5	.942
Attitudes 6	.953
Warmth 1	.813
Warmth 2	.802
Coolness 1	.838
Coolness 2	.832

Demographic Analyses. In Study 3, to further test whether participants' demographic factors influenced their attitudes and inclusivity, we ran two OLS regressions predicting attitudes and inclusivity from ad type (disability vs. control), participants' age (mean-centered), gender (1 = male, 0 = female; other/prefer not to say), and disability status (1 = yes, 0 = no). The results are summarized in Table C3.

Table C3: OLS regressions. † $.05 < p < .1$, * $p < .05$, ** $p < .01$, *** $p < .001$. The table shows beta coefficients (standard errors).

	OLS on attitudes	OLS on inclusivity
Ad-Type (control vs disability)	9.45*** (2.68)	1.86 (0.10)
Participant's Gender	-5.45* (3.67)	-0.02*** (0.18)
Participant's Age	-0.32*** (0.01)	-0.02 (0.00)
Participant has a disability	-4.36 (4.72)	-0.31** (0.12)
R²	0.06	0.05
N	400	400

Web Appendix D: Study 4, Pre-test and Additional Analyses

Warmth and Coolness Pre-test

To verify that the disability-divergent and disability-conformity conditions produced different perceptions of brand warmth and coolness, we ran a stimulus pre-test. Given the high correlations among warmth, coolness, and attitudes in Study 3, we also measured the theorized antecedents of warmth and coolness (benevolent intentions and norm deviation Wang & Wei, 2025). Participants read a newspaper article in which the brand was described as conforming to an inclusivity quota. According to Wang and Wei's (2025) account, such conformity should lower perceptions of the brand's norm-breaking behaviour (because it follows an industry practice) and reduce perceived benevolence (because representation is mandated by an external authority).

Method

Participants. Four hundred fifty-two respondents recruited via Prolific were paid £0.30 to participate. One participant failed the attention check and was therefore excluded from the analysis.

Stimuli. Participants were exposed to the same stimuli as in Study 4. They were randomly assigned to the control, disability-compliant, or disability-divergent condition.

Procedure. After reading a brief description of the brand, participants rated brand warmth ($r = .90$) and coolness ($r = .85$) using the same items as in Study 3 (Wang & Wei, 2025). In addition, we measured perceptions of the brand's intentions ("Please rate how much you think Pastamasta's intentions are... 1 = self-serving to 7 = benevolent") and norm-breaking behavior ("Please rate how much you think Pastamasta is conforming vs. deviating from the norm... 1 = conforming to 7 = deviating"). Cronbach's alpha for the combined warmth and benevolence items was $\alpha = .76$, and for the combined coolness and norm-breaking items was $\alpha = .59$, indicating that the proposed antecedents were interrelated with their respective focal constructs.

Results

The brand was not perceived as significantly warmer in the disability-divergent condition ($M = 5.76$, $SD = .88$) than in the control condition ($M = 5.61$, $SD = 0.84$), $t(299) = 1.56$, $p = .119$, $d = 0.18$, but it was perceived as marginally cooler in the disability-divergent condition ($M = 5.16$, $SD = 1.14$) than in the control condition ($M = 4.92$, $SD = 1.19$), $t(299) = 1.76$, $p = .080$, $d = 0.20$. More importantly, however, the brand's perceived warmth did not differ between the disability-compliant ($M = 5.47$, $SD = 1.02$) and control conditions, $t(298) = -1.29$, $p = .195$, $d = -0.15$. Nor did the brand's perceived coolness differ between the disability-compliant ($M = 4.83$, $SD = 1.25$) and control conditions, $t(298) = -0.66$, $p = .507$, $d = -0.08$. Finally, relative to the disability-compliant condition, the disability-divergent condition was perceived as both significantly warmer, $t(299) = 2.70$, $p = .007$, $d = 0.28$, and significantly cooler, $t(299) = 2.39$, $p = .017$, $d = 0.31$. Thus, if the disability inclusion effect is due to perceived warmth and/or coolness, then it should not happen in the disability-compliant condition.

A similar pattern to what Wang and Wei (2025) predicted was observed for perception of the brand's benevolent intentions, as benevolence was higher in the disability-divergent condition ($M = 4.09$, $SD = 1.56$) than in the control condition ($M = 3.52$, $SD = 1.57$), $t(299) = 3.21$, $p = .001$, $d = 0.37$, and also significantly more norm breaking in the disability-divergent condition ($M = 4.13$, $SD = 1.60$) than in the control condition ($M = 3.67$, $SD = 1.74$), $t(299) = 2.38$, $p = .018$, $d = 0.28$. More importantly the brand's benevolence did not differ between the disability-compliant ($M = 3.69$, $SD = 1.62$) and control conditions, $t(298) = 0.90$,

$p = .367$, $d = 0.10$. Nor did the brand's norm breaking differ between the disability-compliant ($M = 3.41$, $SD = 1.61$) and control conditions, $t(298) = -1.30$, $p = .192$, $d = -0.15$. Finally, relative to the disability-compliant condition, the disability-divergent condition was perceived as more benevolent, $t(299) = 2.24$, $p = .025$, $d = 0.26$, and more norm breaking, $t(299) = 3.85$, $p < .001$, $d = 0.44$.

Demographic Analyses

In Study 4, to further test whether participants' demographic factors influenced their attitudes and inclusivity, we ran two OLS regressions predicting attitudes and inclusivity from disability compliant condition (1 = disability compliant, 0 = control), disability divergent condition (1 = disability divergent, 0 = control), participants' age (mean-centered), gender (1 = male, 0 = female; other/prefer not to say), and disability status (1 = yes, 0 = no). The results are summarized in Table D1.

Table D1: OLS regressions. † $.05 < p < .1$, * $p < .05$, ** $p < .01$, *** $p < .001$. The table shows beta coefficients (standard errors).

	OLS on attitudes	OLS on inclusivity
Disability Compliant	6.73** (2.08)	0.79*** (0.11)
Disability Divergent	10.16*** (2.07)	0.71*** (0.11)
Participant's Gender	-2.48 (1.72)	-0.00 (0.00)
Participant's Age	0.12* (0.06)	-0.09 (0.09)
Participant has a disability	-2.66 (2.56)	-0.16 (0.14)
R²	0.66	0.12
N	300	300

Web Appendix E: Study 5, Post-Test and Additional Analyses

Warmth and Coolness Post-Test

To ensure that differences in attitudes observed in Study 5 were not driven by perceptions of warmth or coolness, we conducted a stimulus post-test. Specifically, our manipulation of stereotypical communication was expected to influence perceptions of warmth and coolness, as the stereotypical slogan (“Emma does not have a nice life”) is less warm and aligns with normative views of both people with a disability and single mothers. However, we anticipated that the impact of stereotypical communication on warmth and coolness would be consistent across the two groups, leading us to expect a non-significant interaction.

Method

Participants. Four hundred five respondents recruited via Prolific were paid £0.15 to participate. Seven participants failed the attention check and were excluded from the analyses.

Stimuli. Participants were exposed to the same stimuli as in Study 5. They were randomly assigned to conditions of a 2 (model: control vs. disability) \times 2 (representation: vulnerability focused vs. strength focused) between-participants design.

Procedure. After reading a brief article and looking at the ad, we measured perceptions of warmth (“In your view, the brand Streamify is...” warm, friendly; 1 = not at all to 7 = very much, $r = .94$) and coolness (“To what extent do you personally consider the brand, Streamify, cool or uncool?”, “To what extent do you think your close friends would consider the brand, Streamify, cool or uncool?”; 1 = not at all cool to 7 = very cool, $r = .85$).

Results

The results of a 2 (model) \times 2 (representation) between-subjects ANOVA on warmth showed a main effect of model, $F(1, 394) = 6.78, p = .010, \eta^2 = .017$, and representation, $F(1, 394) = 37.30, p < .001, \eta^2 = .086$, and the interaction was not significant, $F(1, 394) = 2.45, p = .118, \eta^2 = .006$. In the vulnerability focused condition the brand was perceived as warmer in the disability condition compared to the control ($M_{\text{disability}} = 4.60$ SD = 1.46 vs $M_{\text{control}} = 4.04$ SD = 1.47; $t(197) = 2.69, p = .008, d = 0.38$).

For coolness, there were main effects of model, $F(1, 394) = 7.99, p = .005, \eta^2 = .020$ and representation, $F(1, 394) = 21.69, p < .001, \eta^2 = .052$. The interaction was not significant, $F(1, 394) = .47, p = .492, \eta^2 = .001$. In the vulnerability focused condition the brand was perceived as cooler in the disability condition compared to the control ($M_{\text{disability}} = 4.22$ SD = 1.72 vs $M_{\text{control}} = 3.70$ SD = 1.45; $t(197) = 2.30, p = .023, d = 0.33$).

Demographic Analyses

In Study 5, to further test whether participants’ demographic factors influenced their attitudes and inclusivity, we ran two OLS regressions predicting attitudes and inclusivity from ad type (1 = disability, 0 = control), representation (1 = vulnerability focused 0 = strength focused), the interaction between ad type and representation, participants’ age (mean-centered), gender (1 = male, 0 = female; other/prefer not to say), and disability status (1 = yes, 0 = no). The results are summarized in Table E1.

Table E1: OLS regressions. † $.05 < p < .1$, * $p < .05$, ** $p < .01$, *** $p < .001$. The table shows beta coefficients (standard errors).

	OLS on attitudes	OLS on Belief in inclusivity
Ad-Type (control vs disability)	14.54*** (3.58)	0.93*** (0.14)
Representation (vulnerability vs strength focused)	-3.23 (3.55)	-0.12 (0.14)
Participant's Gender	3.54 (2.69)	0.26* (0.10)
Participant's Age	-0.40*** (0.10)	0.00 (0.00)
Participant has a disability	-2.43 (3.54)	0.06 (0.14)
Ad-Type x Representation	-10.31* (5.05)	-0.48* (0.20)
R²	0.11	0.17
N	397	397

Web Appendix F: Study 6, Post-Test and Additional Analyses

Warmth and Coolness Post-Test

To ensure that differences in attitudes observed in Study 6 were not driven by perceptions of warmth or coolness, we conducted a stimulus post-test. Specifically, our manipulation of conspicuous communication was expected to influence perceptions of warmth and coolness. However, we anticipated that the impact of communication on warmth and coolness would be consistent across the two groups, leading us to expect two non-significant interactions.

Method

Participants. Four hundred four respondents recruited via Prolific were paid £0.15 to participate. Four participants failed the attention check and were excluded from the analyses.

Stimuli. Participants were exposed to the same stimuli as in Study 6. They were randomly assigned to conditions of a 2 (model: control vs. disability) \times 2 (communication: conspicuous vs. inconspicuous) between-participants design.

Procedure. After reading a brief article and looking at the ad, we measured perceptions of warmth (“In your view, the brand is...” warm, friendly; 1 = not at all to 7 = very much, $r = .90$) and coolness (“To what extent do you personally consider the brand, cool or uncool?”, “To what extent do you think your close friends would consider the brand, cool or uncool?”; 1 = not at all cool to 7 = very cool, $r = .87$).

Results

An additional eleven participants failed the manipulation check of whether the model had a disability, leaving 389 valid responses. The results of a 2 (model) \times 2 (communication) between-subjects ANOVA on warmth show a main effect of model, $F(1, 385) = 25.75, p < .001, \eta^2 = .063$, and communication, $F(1, 385) = 23.82, p < .001, \eta^2 = .058$, and the interaction was not significant, $F(1, 385) = .784, p = .379, \eta^2 = .002$.

For coolness, there was not a main effect of model, $F(1, 385) = .78, p = .376, \eta^2 = .002$. The main effect of communication was significant, $F(1, 385) = 10.52, p = .001, \eta^2 = .027$, and the interaction was not significant, $F(1, 385) = .09, p = .760, \eta^2 = .000$.

Demographic Analyses

In Study 6, to further test whether participants’ demographic factors influenced their attitudes and inclusivity, we ran two OLS regressions predicting attitudes and inclusivity from ad type (1 = disability, 0 = control), communication (1 = conspicuous, 0 = inconspicuous), the interaction between ad type and communication, participants’ age (mean-centered), gender (1 = male, 0 = female; other/prefer not to say), and disability status (1 = yes, 0 = no). The results are summarized in Table F1.

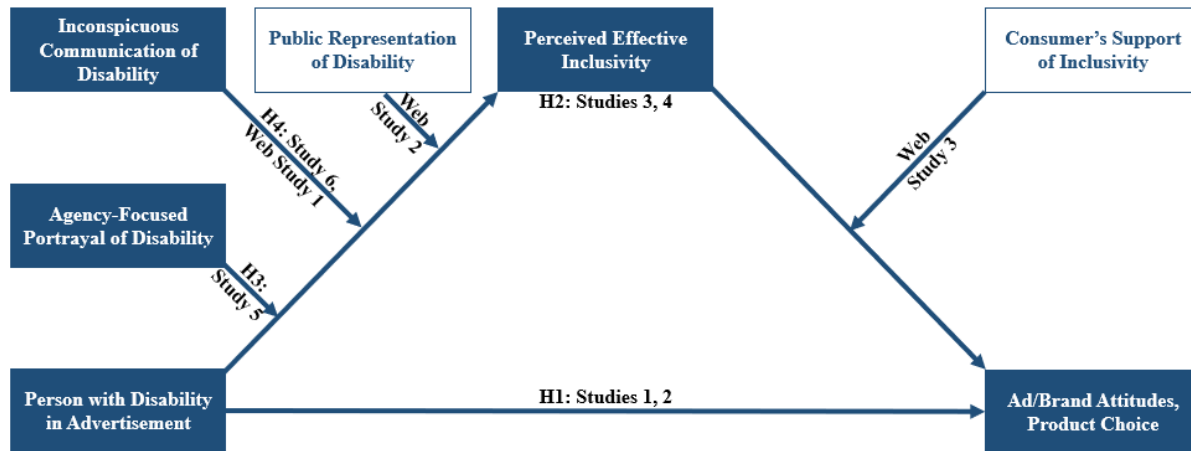
Table F1: OLS regressions. † $.05 < p < .1$, * $p < .05$, ** $p < .01$, *** $p < .001$. The table shows beta coefficients (standard errors).

	OLS on attitudes	OLS on Belief in inclusivity
Ad-Type (control vs disability)	0.54** (0.19)	1.44*** (0.11)
Communication (conspicuous vs not)	-0.19 (0.18)	-0.05 (0.10)
Participant's Gender	0.09 (0.14)	0.15* (0.08)
Participant's Age	0.00 (0.00)	0.00† (0.00)
Participant has a disability	0.22 (0.20)	0.22† (0.11)
Ad-Type x Communication	-0.76** (0.26)	-0.51*** (0.15)
R²	0.07	0.43
N	390	390

Web Appendix G: Web Study 1: Moderation by Conspicuous Communication (Visible Disability)

Web Studies 1-3 provided additional tests of our conceptual model of the disability inclusion effect, as shown in Figure G1.

Figure G1. Conceptual model, including Web Studies 1-3.



Study 6 found that conspicuously highlighting a person's disability decreases perceived inclusivity and lowers ad and brand attitudes. Web Study 1 replicated the effect with a visible disability and ruled out warmth and coolness as alternative explanations.

Method




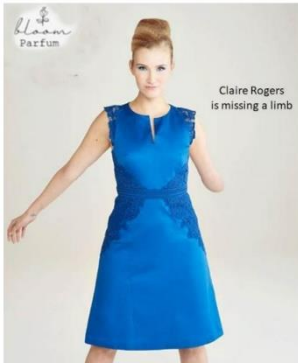
Participants. Six hundred five respondents ($M = 40.52$ years, $SD = 12.96$; 35% males, 63% females 2% other; 10% with a disability: 4% mental, 4% physical, 2% both) on Prolific, all reporting current residence in the US, were paid £0.12 for participating. Two participants failed the attention check and, as preregistered, was excluded from analyses, leaving 603 valid responses. Participants were randomly assigned to conditions of the 2 (ad-type: control vs. disability) \times 2 (communication: conspicuous vs. inconspicuous) between-participants design.

Stimuli. We used an ad featuring a model missing a limb. In the *inconspicuous* conditions, participants learned about the model's name only (*control* condition) or name and disability (*disability* condition) in a separate news-style brief prior to viewing and evaluating the ad, as in Study 6. In the *conspicuous* conditions, that information was embedded in the ad itself (see Figure G2).

Procedure. Participants in the inconspicuous conditions first read a news brief, designed to resemble an online news story, about a fictitious brand's new advertising model. In the *control* condition, the story simply revealed the model and her new partnership with the brand. In the *disability* condition, the story additionally revealed that the model was missing a limb. After reading this news story, participants advanced to the next page, where they viewed the target ad. Participants in the *conspicuous* conditions did not read the news brief but instead viewed an ad that indicated either the model's name only (control) or the model's name and disability (disability). After viewing the ad, participants rated their attitudes toward the ad and the brand (6 items; $\alpha = .97$), and their perception of the brand's inclusivity (3 items; $\alpha = .97$), as in Studies 3 and 4. We also measured perceived exploitation of the model with a single item ("The brand is

exploiting the model”). All items were measured on a scale from 1 (strongly disagree) to 7 (strongly agree). The study concluded with demographics, including a measure of whether the participant had a disability.

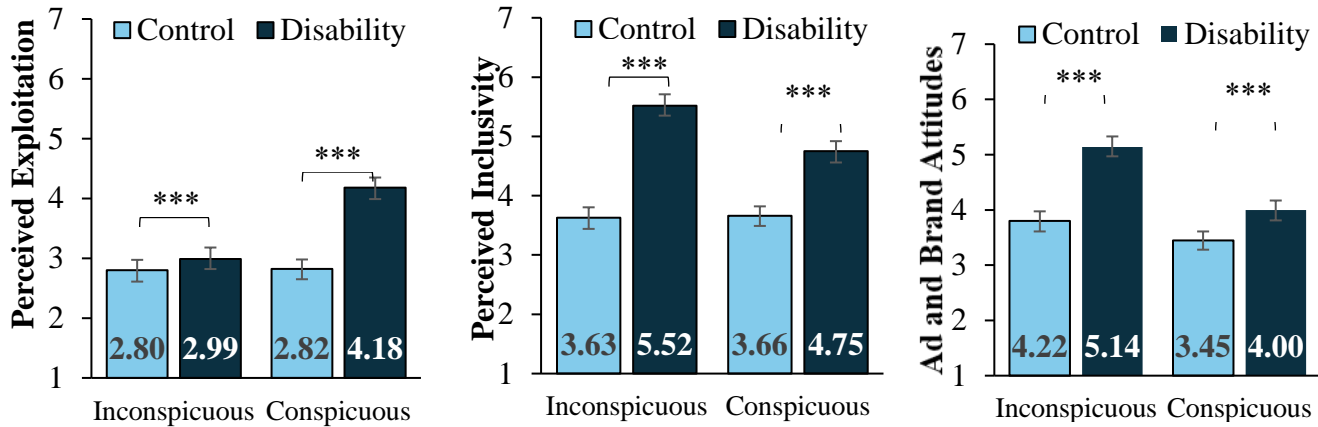
Figure G2. Stimuli used in Web Study 1

	Control	Disability
Inconspicuous	<p>Claire Rogers is Bloom Parfum's Muse</p> <p>Bloom Parfum proudly welcomes Claire Rogers as its latest model, embodying the essence of timeless beauty and sophistication. Together, they redefine the allure of luxury in the world of perfumery.</p> 	<p>Claire Rogers, a model missing a limb, is Bloom Parfum's Muse</p> <p>Bloom Parfum proudly welcomes Claire Rogers, a model missing a limb, as its latest model, embodying the essence of timeless beauty and sophistication. Together, they redefine the allure of luxury in the world of perfumery.</p> 
Conspicuous		

Results and Discussion

Results are illustrated in Figure G3. As preregistered, the data were analyzed via 2 (ad-type) × 2 (communication) ANOVAs and independent samples *t*-tests.

Figure G3. Perceived exploitation of the model, perceived inclusivity of the brand, and attitudes toward the ad and the brand in Web Study 1. Error bars denote 95% confidence intervals. *** $p < .001$; ** $p < .01$; ns: nonsignificant.



Perceived exploitation. Significant main effects of both ad-type, $F(1, 599) = 35.22, p < .001, d = 0.47$, and communication, $F(1, 599) = 21.71, p < .001, d = 0.37$, were qualified by a significant interaction, $F(1, 599) = 19.93, p < .001, d = 0.36$. When the model's information was communicated inconspicuously in a separate news brief, perceived exploitation of the model was equally low for the model with a disability and without a disability, $t(300) = 1.07, p = .285, d = 0.12$. When that information was communicated conspicuously in the ad itself, however, perceived exploitation was significantly greater with a disability than without a disability, $t(299) = 7.14, p < .001, d = 0.82$.

Perceived inclusivity. A main effect of ad-type, $F(1, 599) = 166.08, p < .001, \eta^2 = .22$, indicated that the brand was perceived as more inclusive when the model had a disability ($M = 5.14, SD = 1.58$) than when not ($M = 3.66, SD = 1.27$). A main effect of communication, $F(1, 599) = 10.18, p = .001, \eta^2 = .02$, indicated that the brand was perceived as more inclusive in the inconspicuous conditions ($M = 4.58, SD = 1.63$) than in the conspicuous conditions ($M = 4.21, SD = 1.60$). More importantly, the interaction was also significant, $F(1, 599) = 11.69, p < .001, \eta^2 = .02$. The brand was perceived as more inclusive when information about the model's disability was communicated inconspicuously in the news brief, $t(300) = 12.29, p < .001, d = 1.42$. When the model's disability was disclosed conspicuously in the ad itself, the effect of the disability on brand inclusivity was still significant but smaller, $t(299) = 6.32, p < .001, d = .73$.

Disability inclusion effect. Attitudes toward the ad and brand exhibited the same pattern of results, with significant main effects of both ad-type, $F(1, 599) = 53.87, p < .001, d = 0.58$, and communication, $F(1, 599) = 33.15, p < .001, d = 0.45$. Most importantly, the predicted interaction was significant, $F(1, 599) = 9.21, p = .003, d = 0.25$. Communicating information about the model inconspicuously in the news brief elicited more positive attitudes with the model who had a disability than with the control model, $t(300) = 8.09, p < .001, d = 0.93$. When the model's disability was disclosed conspicuously in the ad itself, the disability inclusion effect remained significant, but it was attenuated, $t(299) = 2.80, p = .005, d = 0.32$.

Discussion. Results of Web Study 1 demonstrate that when a model with a disability is presented like any other model in an ad (i.e., inconspicuous communication), the brand does not appear to exploit the model and does appear to support inclusivity, and hence consumers

positively evaluate the ad and the brand. However, when the model’s disability is communicated conspicuously by highlighting it in the ad itself, the brand appears to exploit the model, thereby reducing the brand’s perceived inclusivity and attenuating the disability inclusion effect. These results support **H4**.

Demographic Analyses We regressed attitudes toward the ad/brand, perceived support of inclusivity, and perceived exploitation in three separate regressions on ad-type (1 = disability, 0 = control), communication (0 = inconspicuous, 1 = conspicuous), and participants’ age (mean centred), gender (1 = male, 0 = female and other), and disability (1 = yes, 0 = no). The results, reported in Table G1, show that when participants’ demographics are entered in the regressions as covariates, the ad-type and communication still interact significantly on attitudes toward the ad/brand, ad-type still significantly predicts perceived support of inclusivity, and communication still significantly predicts perceived exploitation.

Table G1. OLS regressions. † $.05 < p < .1$, * $p < .05$, ** $p < .01$, *** $p < .001$. The table shows beta coefficients (standard errors).

	OLS on attitudes	OLS on inclusivity	OLS on exploitation
Ad-Type (control vs disability)	0.713*** (0.157)	1.489*** (0.157)	0.213 (0.186)
Communication (conspicuous vs not)	-0.351* (0.157)	-0.192 (0.156)	-0.089 (0.185)
Ad-Type x Communication	-0.634** (0.225)	-0.276 (0.225)	0.955*** (0.266)
Participant’s Gender	0.060 (0.117)	0.329** (0.117)	-0.007 (0.139)
Participant’s Age	0.008† (0.004)	0.007 (0.004)	0.004 (0.005)
Participant has a disability	-0.180 (0.153)	-0.173 (0.153)	0.197 (0.181)
R²	.096	.224	0.078
N	591	591	591

Web Appendix H: Web Study 2: Moderation by Public Representation





Web Study 2 tested whether public representation moderates the disability inclusion effect. We presented a scenario in which a brand hired and paid either a person with a disability or an unhoused person to model for the brand's new ad campaign. Half the participants were further informed that the model (either with a disability or unhoused) subsequently appeared in the ad campaign (*representation* condition), or crucially, that the model ultimately did not appear in the ad campaign (*no representation* condition). Given our theorizing that public representation is especially important for people with disabilities, we predicted that hiring a model with a disability would increase the brand's perceived inclusivity and improve attitudes toward the brand, but only when the model with a disability actually appeared in the ad campaign. For unhoused individuals, in contrast, financial support may be more important than public representation. Thus, whether the unhoused model ultimately appears in the public ad campaign should matter less for attitudes toward the brand.

Method

Participants. We recruited 801 US residents ($M = 38.22$ years, $SD = 13.34$; 54% females; 18% with a disability: 7% mental, 6% physical, 5% both) on Prolific. Two participants failed the attention check and, as preregistered, were excluded, leaving 799 valid responses. Participants were randomly assigned to conditions of the 2 (model: unhoused vs. disability) \times 2 (public representation: yes vs. no) between-participants design (see Figure H1).

Procedure. All participants first read that a (fictitious) brand hired an unhoused person [person with a disability] to model in their latest collection, and the brand paid the model \$500. In the *representation* conditions, participants additionally read that the brand used the model in their campaign. In the *no representation* conditions, participants instead read that the brand decided not to use the ad in their campaign. After reading the information, participants advanced to the next page, where they viewed the target ad. In the *unhoused* condition, participants viewed a picture of a model with no visible disability. In the *disability* condition, the model was missing a limb. After viewing the ad, participants rated their attitude toward the ad and brand (6 items; $\alpha = .94$), and their perception of the brand's inclusivity ("The brand supports inclusivity," "The brand benefits minorities," and "The brand supports integration of minorities" on a scale from 1 (strongly disagree) to 7 (strongly agree) ($\alpha = .91$). The study concluded with demographic measures, including a measure of whether the participant had a disability, and if so, what type (i.e., physical, mental, or both).

Figure H1. Stimuli used in Web Study 2

	Unhoused	Disability
No Representation	<p>The fashion brand IES hired an unhoused (homeless) person to model in their latest collection. You can see the ad below. IES paid the person \$500 for their participation. In the end, however, IES did not use this ad in their campaign.</p> 	<p>The fashion brand IES hired a person with a disability to model in their latest collection. You can see the ad below. IES paid the person \$500 for their participation. In the end, however, IES did not use this ad in their campaign.</p> 
Representation	<p>The fashion brand IES hired an unhoused (homeless) person to model in their latest collection. You can see the ad below. IES paid the person \$500 for their participation. IES used this ad in their campaign.</p> 	<p>The fashion brand IES hired a person with a disability to model in their latest collection. You can see the ad below. IES paid the person \$500 for their participation. IES used this ad in their campaign.</p> 

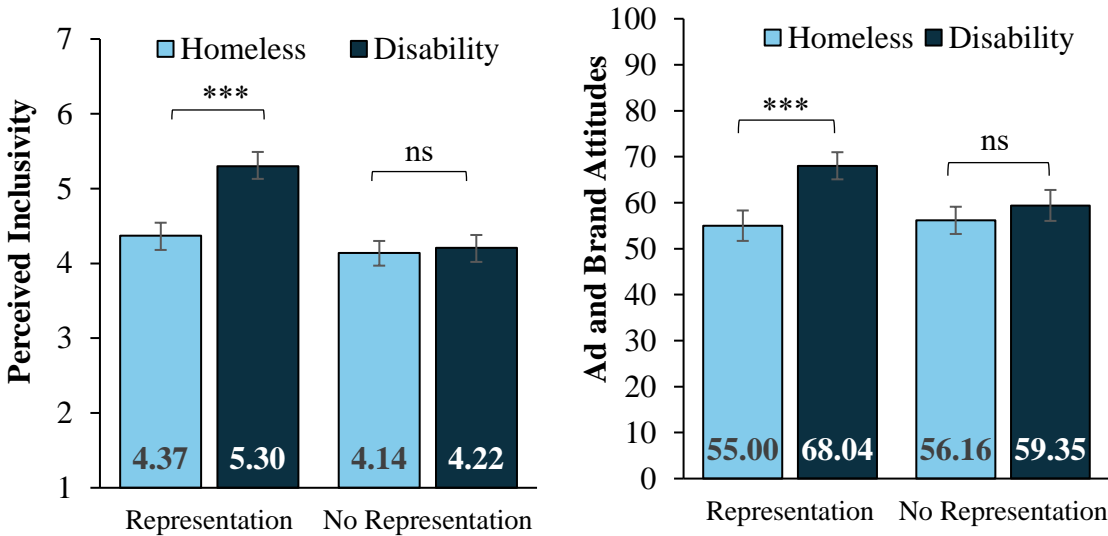
Results and Discussion

Results are illustrated in Figure H2. As preregistered, the data were analyzed via 2 (model) × 2 (representation) ANOVAs and independent samples *t*-tests.

Perceived inclusivity. A main effect of model, $F(1, 795) = 31.77, p < .001, \eta^2 = .04$, indicated that the brand was perceived as more inclusive when the model had a disability ($M = 4.83, SD = 1.38$) than when the model was unhoused ($M = 4.25, SD = 1.22$). The main effect of representation was also significant, $F(1, 795) = 86.10, p < .001, \eta^2 = .07$, but more importantly, the predicted interaction was also significant, $F(1, 795) = 23.17, p < .001, \eta^2 = .03$. Specifically, representing a disabled person in the ad (compared to not representing one) increased perceptions of brand inclusivity, $t(397) = 8.50, p < .001, d = .86$. In contrast, including an

unhoused person in the ad had only a marginal effect on inclusivity, $t(398) = 1.93, p = .055, d = .19$.

Figure H2. Perceived inclusivity of the brand and attitudes toward the brand in Web Study 2. Error bars denote 95% confidence intervals. *** $p < .001$; ns: non-significant.



Disability inclusion effect. Brand attitudes exhibited the same pattern of results. The main effects of both model, $F(1, 795) = 25.82, p < .001, \eta^2 = .03$, and representation, $F(1, 795) = 5.54, p = .019, \eta^2 = .01$, were significant. Most importantly, the predicted interaction was also significant, $F(1, 795) = 9.48, p < .001, \eta^2 = .01$. Specifically, representing a disabled person in the ad (compared to not representing one) increased ad and brand attitudes, $t(397) = 4.10, p < .001, d = .41$. In contrast, including an unhoused person in the ad did not impact attitudes, $t(398) = .49, p = .628, d = .05$.

Moderated Mediation. Although not preregistered, we additionally tested whether the perceived inclusivity of the brand mediated the disability inclusion effect, and whether public representation moderated that process. The presumed mediator (brand inclusivity) and dependent variable (consumer attitudes) correlated moderately ($r = .522, p < .001$), suggesting sufficient discriminant validity for meaningful mediation (Pieters 2017). We conducted a moderated mediation analyses (Hayes 2018, model 7, 10K samples) with model as independent variable (unhoused = 0, disability = 1), perceived inclusivity as mediator, attitudes as dependent variable, and representation (no = 0, yes = 1) as A-path moderator. The index of moderated mediation was significant, $B = 8.31, SE = 1.85, CI_{95} = [4.78, 12.03]$. Specifically, in the representation conditions, the indirect (mediation) effect of ad-type on attitudes was significant and positive, $B = 9.02, SE = 1.38, CI_{95} = [6.44, 11.82]$, suggesting again that the disability ad improved attitudes via perceived inclusivity of the brand. In contrast, in the no-representation conditions, the indirect effect was nonsignificant, $B = .71, SE = 1.28, CI_{95} = [-1.79, 3.25]$.

Discussion. Results of Web Study 2 demonstrate that, indeed, public representation appears necessary for the disability inclusion effect. When included in the brand's public ad campaign, a model with a disability elicited more positive attitudes than an unhoused model. When ultimately not included in the ad campaign, however, the disability inclusion effect disappeared. We found the same pattern of results on the brand's perceived inclusivity, and the

results of a moderated mediation analysis suggest that perceived inclusivity underlies this effect. Essentially, consumers believe that including people with disabilities in ads can reduce their marginalization, and hence their attitudes only improve when people with disabilities are actually included in the ad campaign. For unhoused people, in contrast, public representation is a less effective means to support them. Consequently, whether the unhoused model ultimately appears in the ad campaign has no effect on attitudes toward the brand.

Demographic Analyses. In Web Study 2, to further test whether participants' demographic factors influenced their attitudes and inclusivity, we ran two OLS regressions predicting attitudes and inclusivity from model (1=disability, 0 = homeless), public representation (1 = yes, 0 = no) and their interaction, participants' age (mean-centered), gender (1 = male, 0 = female; other/prefer not to say), and disability status (1 = yes, 0 = no). The results are summarized in Table H1.

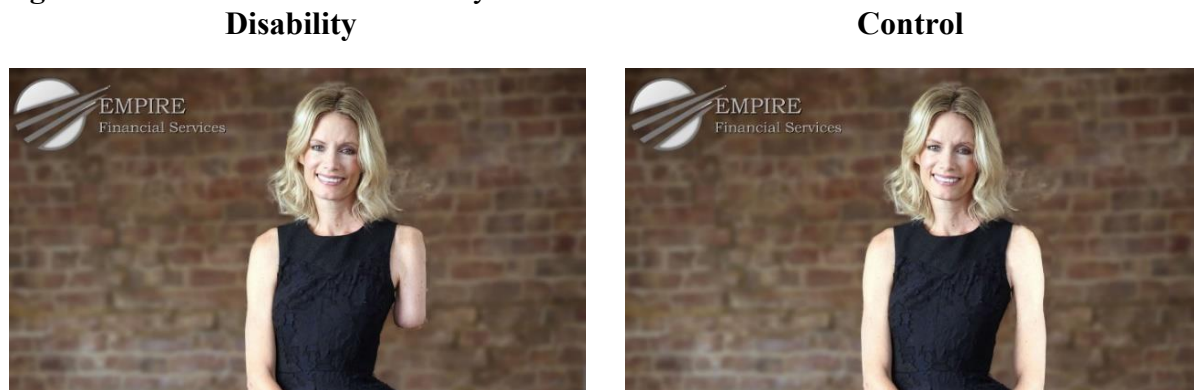
Table H1 OLS regressions. † .05 < p < .1, * p < .05, ** p < .01, *** p < .001. The table shows beta coefficients (standard errors).

	OLS on attitudes	OLS on Belief in inclusivity
Model (homeless vs disability)	13.09*** (2.29)	.95*** (0.13)
Public Representation (yes vs not)	1.36 (2.29)	-0.20 (0.13)
Participant's Gender	-3.00 (1.63)	-0.00† (0.09)
Participant's Age	0.12 (0.06)	0.00† (0.00)
Participant has a disability	-1.41 (2.14)	-0.09 (0.12)
Model x Representation	-10.65** (3.25)	-0.90*** (0.18)
R²	0.07	0.13
N	799	799

Web Appendix I: Web Study 3: Moderation by Consumer's Support of Inclusivity

Our theorizing assumes that consumers positively evaluate brands that include models with disabilities in their ads because most consumers themselves support inclusivity. Thus, consumers' individual differences in the support of inclusivity should moderate the effect. Web Study 3 tested this prediction. Participants first evaluated an ad featuring a model that either had a visible disability (*disability* condition) or not (*control* condition; see Figure I1). One week later, we invited them to participate in an ostensibly unrelated study, in which we measured their general support of inclusivity.⁵

Figure I1. Stimuli used in Web Study 3.



Method

Participants. Eight hundred nine participants on Prolific, all reporting current residence in the US, were paid £0.15 for completing the study. Nine participants failed the attention check and, as preregistered, were excluded from analyses. Thus, in the first phase, the total valid sample consisted of 800 participants ($M = 40.7$ years, $SD = 13.5$; 51% males; 12.9% with a disability: 5.2% mental, 4.3% physical, 3.3% both). One week later (second phase), we invited all 800 participants to complete an ostensibly unrelated study, for which we paid them £0.15. Seven hundred fifty-five participants ($M = 40.9$ years, $SD = 13.5$; 48% males; 14.4% with a disability: 5.7% mental, 5.4% physical, 3.3% both) completed the second phase of the study (i.e., 94% return rate).

Stimuli. We created two versions of an ad for a fictitious brand, Empire Financial Services (see Figure I1). The model either was missing a limb (disability) or not (control).

Procedure. In the first phase, participants viewed one of the ads (i.e., between-participants), and then rated their attitude toward the ad and the brand, as in Web Study 1 ($\alpha = .99$). One week later (second phase), we messaged all participants through the Prolific platform, inviting them to participate in another survey. All returning participants then reported their support of inclusivity, as described below. The study concluded with demographics, including a measure of whether the participant had a disability.

Support of inclusivity. There are several scales for measuring consumers' support of inclusivity. However, most of them measure the support of inclusivity with respect to racial/ethnic background, gender identification, sexual preferences, poverty, political beliefs, or immigration status. We found only one scale that also considers disabilities (Pohan & Aguilar,

⁵ Preregistration available at <https://aspredicted.org/s697-d6m6.pdf>

2001), and only two of its 22 items concerned disabilities: (1) “Making all public facilities accessible to people with a disability is simply too costly” (reverse coded), and (2) “People with physical limitations are less effective as leaders than people without physical limitations” (reverse coded). We therefore supplemented these two items with three new items of general support of inclusivity: (3) “Social inclusivity is important to me,” (4) “When I see someone being left out, I usually make an effort to involve them,” and (5) “Not everyone needs to be involved in everything” (reverse coded). We thus assessed the support of inclusivity via these five items. All items used a scale from 1 (strongly disagree) to 7 (strongly agree). We preregistered to run a factor analysis and retain all items that show unidimensionality (i.e., eigenvalue > 1) with a Cronbach $\alpha > 0.70$. Unfortunately, none of the item combinations satisfied our preregistered conditions: Including all five items was not unidimensional, and although all 4-item combinations were unidimensional, they all had $\alpha < 0.70$ (see the next paragraph for more explanation). The 4-item combination with the highest α (0.66) included items 1, 2, 3, and 4. We therefore averaged these four items to create a *support of inclusivity* index.⁶ See Table II.

Table II: Summary of the scale reliability.

Items included	Unidimensional? # of factors with eigenvalue > 1	Cronbach alpha
Items 1 & 2 (Pohan & Aguilar)	na	na $r = .48$
Items 3, 4 & 5 (our items)	Yes: 1	.61
Items 1 - 5	No: 2	.67
Items 1 - 4	Yes: 1	.66
Items 1 - 3	Yes: 1	.59

Results and Discussion

We regressed attitudes toward the ad/brand on a dummy variable for ad-type (control = 0, disability = 1), the mean-centered support of inclusivity index, and their interaction.⁷ Once again, disability inclusion improved attitudes toward the ad/brand, $\beta = 0.69$, $t(796) = 6.63$, $p < .001$, supporting **H1**. The effect of support of inclusivity was not significant, $\beta = -0.09$, $t(796) = -1.27$,

⁶ To the extent that this 4-item measure taps into unrelated constructs, as suggested by the low α , that should make it less likely to moderate the disability inclusion effect. But in fact, both this 4-item measure and the full 5-item measure significantly moderated the disability inclusion effect.

⁷ We first tested whether exposure to the ads in the first phase influenced support of inclusivity in the second phase, by regressing the support of inclusivity index on ad-type (0 = control, 1 = disability). Ad-type was not significant ($p = .828$), indicating that the particular ad the participant evaluated in the first phase of the study had no effect on their reported support of inclusivity one week later. Thus, if the support of inclusivity did moderate the disability inclusion effect, it could not be due to a spillover effect from one measure onto the other.

$p = .204$. Most importantly, the interaction was significant, $\beta = 0.45$, $t(796) = 4.79$, $p < .001$. As predicted, the disability inclusion effect was significantly larger among participants who more strongly support inclusivity. Johnson-Neyman points emerged at 2.13 and 3.94 on the 1-7 scale, indicating that only consumers who strongly rejected inclusivity (i.e., below an index rating of 2.13) showed a negative disability inclusion effect, whereas those who moderately rejected inclusivity (i.e., between 2.13 and 3.94) showed no disability inclusion effect. In fact, only 0.9% of participants were below the first Johnson-Neyman point, and only 16.69% were below the second point. Thus, the vast majority of participants (83%) supported inclusivity (i.e., above the scale midpoint), and that majority positively evaluated ads and brands that included a model with a disability.

Demographic Analyses. We regressed attitudes toward the ad/brand on ad-type (1 = disability, 0 = control), participants' age, gender (1 = male, 0 = female and other), disability (1 = yes, 0 = no), support of inclusivity (mean-centred), and the interaction of ad-type and participants' support of inclusivity. As can be seen from Table I2, ad-type and its interaction with participants' support of inclusivity are significant when controlling for participants' demographics. In a separate regression, we regressed participants' support of inclusivity on ad-type (1 = disability, 0 = control), and participants' age, gender (1 = male, 0 = female and other), and disability (1 = yes, 0 = no). Participants' own support of inclusivity was not affected by the experimental manipulation, but female participants and those who had a disability themselves scored higher on support of inclusivity.

Table I2: OLS regressions. † $.05 < p < .1$, * $p < .05$, ** $p < .01$, *** $p < .001$. The table shows beta coefficients (standard errors).

	OLS on attitudes	OLS on Belief in inclusivity
Ad-Type (control vs disability)	0.70*** (0.11)	-0.04 (0.08)
Participant's Gender	-0.02 (0.11)	0.48*** (0.08)
Participant's Age	0.00 (0.00)	0.00 (0.00)
Participant has a disability	-0.32 (0.15)	0.26** (0.11)
Support of Inclusivity (mean-centered)	-0.07 (0.07)	
Ad-Type x Belief in Inclusivity (mean-centered)	0.37*** (0.09)	
R²	0.09	0.07
N	755	755