

Women's Disempowerment and the Market for Skin Whitening Products: Experimental Evidence from India

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Free market advocates consider consumer choice unambiguously welfare-enhancing, but critics argue that availability of certain products can be detrimental for society. Contributing to this debate, we study the case of controversial skin whitening products sold widely in emerging markets. Although positioned as empowering female consumers by providing more choice, these have been scrutinized for perpetuating women's disempowerment by reinforcing sociocultural biases. To test these claims, we experimentally examine a possible relationship between women's disempowerment and preference for skin whitening products in India, and find some evidence of a positive relationship. Participants primed temporarily to feel more disempowered show greater preference for the stronger (and medically risky) products, but not for the milder ones. Implications from our findings for corporate social responsibility and policy are discussed.

Keywords: Women's Disempowerment; Skin Whitening Products; Corporate Social Responsibility; Emerging Markets; Experimental Research Design

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INTRODUCTION

Global conversations about corporate social responsibility (CSR) increasingly scrutinize firms regarding whether their products truly benefit society (Hosmer, 1994; Wowak, Mannor, and Wowak, 2014). Although standard economic models based on the idea of utility maximization take more choice to be unambiguously welfare-enhancing, scholars have argued that availability and use of certain products can in reality be detrimental to society (Crane *et al.*, 2014; Karnani, 2007). Research in behavioural economics and psychology has solidly established that consumers can indeed be tempted into buying products that undermine their own well-being (Akerlof and Shiller, 2015; Ariely, 2009; Köszegi and Rabin, 2007; Thaler and Sunstein, 2009).

Concerns regarding negative societal impact arise naturally in the context of “vice goods”, including drugs, alcohol, and tobacco (Jain, 2012; Wertenbroch, 1998). But they have also been expressed regarding a much broader range of products, such as soft drinks, fast food, and dietary supplements (Huang, Khwaja, and Sudhir, 2016; Ye, Cronin, and Peloza, 2015). Proponents of more corporate self-regulation seek a paradigm of CSR that involves more than engaging in standalone “giving back” activities (such as corporate volunteering or charitable giving programs). Specifically, they propose that firms should abstain from pursuing profitable business opportunities that might be detrimental to society despite being legal. Particular concerns around marketing and sale of certain products arise regarding perpetuation of undesirable institutions and practices, such as those that may reinforce sociocultural biases related to gender, class, and ethnicity (Fleming and Jones, 2013; Glenn, 2008; Karnani, 2007).

In the context of emerging markets, the issue is particularly salient as companies increasingly strive to reach low-income market segments with a stated goal of “doing well by doing good” (Prahalad, 2005; Rangan *et al.*, 2007; London and Hart, 2011). Our research

examines one such product commonly sold in emerging markets: skin whitening creams targeting consumers (typically women) keen to make their skin complexion lighter. Taking a free-market perspective, Hammond and Prahalad (2004) argue that an affordable skin whitening cream can make even a poor woman feel empowered by providing her access to a “*consumer product formulated for her needs*” (p. 36). Karnani (2007) counters this with a perspective that information asymmetry about the product between the firm and the less informed consumer might lead to a market failure, arguing instead that “*if she was truly empowered, she would probably refuse to buy a skin whitener in the first place*” (p. 1354). Although the above debate has been based only on case studies rather than systematic empirical evidence, the goal of our research note is to illustrate how an experimental approach can be employed to more rigorously investigate the potential effects of women’s disempowerment on their preference for skin whitening products.

The scale of the overall beauty industry underscores its potential impact, with revenues estimated at \$460 billion globally (Research and Markets, 2015). The sector is often under scrutiny for potentially adverse effects on women (Jha, 2015; Lavine, Sweeney, and Wagner, 1999). Some scholars have argued that, rather than providing empowerment by providing more choice, the beauty industry might in reality disempower women by producing unattainable beauty standards (Mears, 2011; Wolf, 1991). Evaluating themselves in terms of their appearance—as motivated by the beauty industry—can place women at risk of anxiety, depression, and reduced mental performance (Fredrickson *et al.*, 1998). Within the overall beauty sector, the segment for skin whitening products has faced the most severe accusations related to corporate social irresponsibility (The Economist, 2012; The Guardian, 2013). Nevertheless, the segment has grown rapidly—projected to reach \$23 billion by 2020—spurred especially by growth in emerging markets (Global Industry Analysts, 2015).

Firms selling skin whitening products portray themselves as merely responding to existing demand. Consumer preference for lighter skin has indeed been documented globally (Jha, 2015). This is no surprise as a fairer skin complexion is correlated with better life outcomes even within the same ethnic group (Hamilton, Goldsmith, and Darity, 2009). Empirical research has also established an association between women's skin tone and important outcomes such as educational attainment, wages earned, and even a more desirable husband (Hamilton *et al.*, 2009; Hunter, 1998). Having fairer skin is therefore seen as a path to better status, power, and wealth (Glenn, 2008; Keith and Herring, 1991).

From a free market perspective, skin whitening creams might therefore be seen as both practically and psychologically empowering women (Hammond and Prahalad, 2004; Prahalad, 2005). However, opponents have argued that the underlying preference for light skin itself arises from deeply-embedded sociocultural biases, such as class differences with origins in colonial histories (Glenn, 2008). Consistent with this critical perspective, majority views among Indian policymakers and civil society involve accusations of skin whitening creams' current marketing approaches, saying they perpetuate "racism" and "are demeaning for women" (The Hindu, 2013; The Indian Express, 2016a; The Indian Express, 2016b). To the extent that profit-maximizing actions of firms aggravate such preferences and the underlying social inequities – especially in contexts where policy makers and social purpose organizations are striving for progress in the other direction – the goals of the firm and society can become misaligned (Mendoza, 2015).

The issue of whether firms selling skin whitening creams truly exacerbate a "cycle of disempowerment" for women remains under-explored in empirical research. Our present research examines the first half of this potentially vicious cycle, investigating whether disempowered women are particularly vulnerable to feeling the need for using skin whitening

creams.¹ An empirical challenge with relying on naturally occurring data to analyse this issue would be establishing causality. For example, some women might prefer skin whitening products for reasons we do not observe, and these reasons might happen to also be correlated with being disempowered or not. To overcome such identification challenges, we employ an experimental approach based on the “power prime” methodology drawn from prior research (Galinsky, Gruenfeld, and Magee, 2003; Jordan, Sivanathan, and Galinsky, 2011; Smith and Trope, 2006). Specifically, we randomly assign women to experimental conditions where they (temporarily) feel disempowered or empowered, and compare their preferences for skin whitening products after this intervention.

The existence of two types of skin whitening products in India—mild but safe (cosmetic) creams sold by reputed firms and strong but risky (pharmaceutical) creams sold by local firms, the latter often misused in the hope of getting more drastic skin whitening—provides a unique empirical setting for a nuanced study of the phenomenon of interest. We find that an experimentally induced state of disempowerment does not affect women’s preference for the mild but safe (cosmetic) creams, but does increase their preference for strong but risky (pharmaceutical) creams. Our study therefore brings forth a new perspective on the relationship between women’s empowerment and preference for skin whitening products. In doing so, it also makes a methodological contribution in terms of adding to the growing literature employing experimental research design in management research (Burbano, 2016; Chatterji *et al.*, 2016; Raveendran, Puranam and Warglien, 2016). While it is beyond the scope of this research note to present a comprehensive social cost-benefit analysis regarding skin whitening creams, we hope that our study serves as a first step in bringing academic rigour to this important debate.

¹ Studying the complete cycle of disempowerment would also require a second piece of empirical research, one that examines whether and how availability of skin whitening creams might aggravate women’s feeling of disempowerment. This is therefore an important question for future research.

EMPIRICAL CONTEXT: SKIN WHITENING PRODUCTS IN INDIA

The words “fair” and “beautiful” are treated almost synonymously with respect to women in several emerging markets (Li *et al.*, 2008). India is a leading market for skin whitening, with skin complexion operating as an important boundary marker for a person’s caste and class (Philips, 2004). Constituting almost half of the overall skincare market, the skin whitening segment alone was estimated at \$535 million in 2013 (Karnani, 2014). Yet the sector continues to be mired in controversy, with questions being raised by academics, media, activists, and policy makers.

Academic debates related to skin whitening products have typically focused on the controversial, yet relatively mild, cosmetic creams marketed for skin whitening (Karnani, 2007). Particularly prominent among these is “Fair & Lovely” from Unilever, a household brand name that commands almost 60% of the industry revenues in India (Karnani, 2014). Such products, at least when sold by reputed firms, utilize relatively benign methods for achieving lighter skin (such as a sun-block component to protect against sun-induced pigmentation stimulation). The concerns around these have therefore not been about being medically unsafe, but about their marketing potentially overstating product effectiveness and exploiting existing sociocultural biases (Karnani, 2007; Agarwal and Roy, 2012).

What is less commonly recognized is that the skin whitening sector in India also includes strong pharmaceutical products sold as whitening creams with a promise of achieving more immediate and drastic skin whitening (The Hindu, 2013; The Telegraph, 2015; The Times of India, 2015). These typically use controversial active ingredients, such as a bleaching agent called hydroquinone (Mahe *et al.*, 2003).² Such ingredients inhibit melanin production in the short run, but can lead to hyper-pigmentation, premature ageing, allergies,

² Data from All India Organization of Chemists and Druggists (AIOCD), also used in other research on the pharmaceutical sector (Bhaskarabhatla *et al.*, 2016), shows that revenues from hydroquinone-based products in India have grown 5.7 times over the period 2008-2012, during which the overall dermatological market has grown only 1.7 times. Local firms are the dominant sellers of these products, with over 90% of the market.

and other adverse effects (Shankar, Giri, and Palaian, 2006). An Indian dermatologist we interviewed cautioned: *“Such products should never be used without doctor’s advice. They are unsafe, but still get used for skin whitening.”*

Given their potential misuse, the pharmaceutical products mentioned above are in principle regulated to be sold only for medical use with a prescription from a registered medical practitioner. However, in reality, they are easily available as a consumer product over the counter. As another Indian doctor we interviewed explained: *“Such products are widely abused despite being labelled as pharmaceutical products. Unregulated, cheap distribution in retail market by several local manufacturers have led to rampant abuse.”* A pharmacist further elaborated: *“Mostly people come for skin whitening purposes without doctor’s prescription. Though there are laws, nothing has been seriously enforced.”* Another pharmacist located close to a garment factory in Bangalore, India, where many low-income women work, similarly noted: *“Women working in the garment industry come mostly without prescription and keep asking for it. More customers come through word of mouth.”*

While the debate around CSR and regulation of marketing and sales of the mild skin whitening products continues, experts generally agree that the availability and growing misuse of medically unsafe products for skin whitening in India is troubling. Given the availability of products that vary in their short-term effectiveness and accompanying long-term risks, this sector therefore provides a rich empirical context for our research question. By examining effects of feeling disempowered, versus empowered, on women’s evaluations of creams of different strengths, we highlight effects of disempowerment on preference for riskier products and demonstrate a potential channel of exploitation by firms through less than responsible behaviour. Before explaining our research design in detail, we first formally present our hypothesis.

DISEMPOWERMENT AND PREFERENCE FOR SKIN WHITENING CREAMS

An important factor influencing women's use of skin whitening products could be their disempowerment, defined as a state when "one's capacity to receive resources, rewards or punishments is controlled by someone else" (Keltner, Gruenfeld, and Anderson, 2003). Substantive sociological and psychological research shows a link between powerlessness and vulnerability. For example, when people feel powerless, they focus on immediate relief (Baumeister, 2002; Tice, Bratslavsky, and Baumeister, 2001) and get more oriented to others' interests and potential threats (Brinol *et al.*, 2007; Keltner *et al.*, 2003). Disempowerment also motivates striving to improve appearances of personal social standing, as has been shown through college students' willingness to pay for luxury goods (Rucker and Galinsky, 2008). In contrast, both societal and psychological power facilitate resilience that often manifests in positive life outcomes, choices that facilitate wellbeing, and improved performance (Guinote, 2007; Narayanan, Tai, and Kinias, 2013; Sherman *et al.*, 2012).

The effects of disempowerment are particularly relevant to socially disadvantaged groups and preferences related to sociocultural biases. Importantly, psychological power has been shown to protect women's mental performance from vulnerability resulting from gender disparities (Van Loo and Rydell, 2013). Further, people with power tend to feel especially competent, agentic, and confident, whereas people low in power are likely to be more attuned to potential threats and to others' interests (Keltner *et al.*, 2003). Such processes can make disempowered women particularly vulnerable to deeply embedded skin-color biases.

We might expect that the omnipresence of relatively mild cosmetic skin whitening creams (e.g., Unilever's "Fair & Lovely" brand) may diminish any effect of disempowerment on interest in them. However, disempowerment ought to clearly influence women's preference for the stronger pharmaceutical skin whitening creams because they are expected to produce immediate results even if at the cost of negative long-term side effects.

Although disempowerment has been associated with behavioral risk aversion (Anderson and Galinsky, 2006; Keltner *et al.*, 2003), we see two key reasons to carefully examine its relationship to women's use of risky skin whitening creams. First, current research shows that psychological disempowerment actually makes people more open to risks that have potential to increase their power (Schaerer, du Plessis, and Galinsky, 2016a). Second, the risks associated with whitening creams are primarily long term (with accompanied short term benefits), and temporal discounting (Akerlof, 1991; Shefrin and Thaler, 1981) has recently been examined in relation to power (Joshi and Fast, 2013; May and Monga, 2014; Moon and Chen, 2014). Specifically, Moon and Chen (2014) found that powerful people believe they have more time than powerless, which led to a more careful consideration of long-term outcomes (and less myopic focus on short-term benefits and risks). Further, both Joshi and Fast (2013) and May and Monga (2014) found that low-powered people were often more likely to choose small short-term gains than larger long-term gains. Similarly, chronically disempowered people are more prone to decision making that involves excessive temporal discounting (Haushofer and Fehr, 2014).

Integrating the above arguments, we expect that disempowered women are more likely than empowered women to evaluate stronger whitening products favourably. We therefore hypothesize:

Hypothesis 1: Being in a state of disempowerment increases women's preferences for strong and risky (pharmaceutical) skin whitening products.

EXPERIMENT 1 (USING MECHANICAL TURK)

Our first experiment employed Amazon's "Mechanical Turk" (AMT) platform, increasingly used for conducting experiments in behavioral and management research (Burbano, 2016; Horton, Rand, and Zeckhauser, 2011; Toubia *et al.*, 2013). One advantage of using AMT,

relative to a laboratory setting, is the access to a larger and more diverse pool of participants (Buhrmester, Kwang, and Gosling, 2011; Paolacci, Chandler, and Ipeirotis, 2010).³

Design of Experiment 1

AMT workers participated in our experiment as they do in other paid tasks (called “Human Intelligence Tasks” or HITs in AMT terminology). Our task was posted for four weeks as “Fill survey on women’s cosmetic products in India” for USD 1.48 (approximately Rupees 100), in line with typical AMT rates in India (Ipeirotis, 2010). Participation was restricted to India-based workers with an average “HIT approval rate” of not less than 90%.⁴

We manipulated women’s temporary state of disempowerment using a “power recall methodology” from psychology (Galinsky *et al.*, 2003; Joshi and Fast, 2013; Smith and Trope, 2006), and established as producing reliable effects even in online settings including AMT (Schaerer *et al.*, 2016b). Following established protocol, participants randomly assigned to the “empowered” (high power) condition responded to the prompt: *“Please recall a particular incident in which you had power over another individual or individuals. By power, we mean a situation in which you controlled the ability of another person or persons to get something they wanted, or were in a position to evaluate those individuals. Please describe this situation in which you had power - what happened, how you felt, etc.”* Participants randomly assigned to the “disempowered” (low power) condition responded to the prompt: *“Please recall a particular incident in which someone else had power over you. By power, we mean a situation in which someone had control over your ability to get something you wanted, or was in a position to evaluate you. Please describe this situation in which you did not have power - what happened, how you felt, etc.”* Finally, participants in the “neutral” condition responded to the prompt: *“Please recall a particular incident in which*

³ Nevertheless, as Ipeirotis (2010) reports, Indian AMT workers still tend to be disproportionately well-educated and from the middle class. This needs to be borne in mind in interpreting our findings.

⁴ “HIT approval rate” of an AMT worker equals the fraction of the person’s past jobs that were approved by the people posting the jobs as having been satisfactorily completed.

you had social interaction with another individual or individuals. By social interaction, we mean a situation in which you communicated or worked with someone. Please describe this situation in which you had social interaction - what happened, how you felt, etc.”

Subsequent to the randomly assigned intervention, all participants responded to the same set of questions. The first block of questions pertained to Unilever’s “Fair & Lovely” brand described earlier, representing a cosmetic cream widely recognized as relatively mild but safe. A second block of questions pertained to the strong but risky pharmaceutical creams that are commonly misused as skin whitening products. In both cases, participants indicated their interest in the product on a seven-point scale *Uninterested* (1) to *Interested* (7). This way of measuring consumer preference is adopted from Zaichkowsky (1985). The responses served as the two primary outcome variables: *Cosmetic Product Interest* for the cosmetic cream and *Pharma Product Interest* for the pharmaceutical cream.

To ensure robustness of our results, we constructed an additional measure that also includes three other items from Zaichkowsky (1985) relevant for our context: importance, relevance and usefulness of a product. Responses to these additional items were also recorded using seven-point semantic differential scales: *Unimportant* (1) to *Important* (7), *Irrelevant* (1) to *Relevant* (7), and *Useless* (1) to *Useful* (7). As in Zaichkowsky (1985), our Cronbach alphas were high (about 0.94) for both cosmetic and pharmaceutical products, so we averaged the four items in each case to construct two additional outcome variables: *Cosmetic Product Rating* for the cosmetic cream and *Pharma Product Rating* for the pharmaceutical cream.

As a third way of measuring perceptions regarding skin whitening products, the participants also reported the effectiveness of cosmetic as well as pharmaceutical products on a seven-point scale from *No effectiveness* (1) to *High effectiveness* (7). The responses were recorded as *Cosmetic Product Effectiveness* and *Pharma Product Effectiveness* respectively.

Subsequently, participants completed demographic questions on gender, marital status, age, education, household income, and the state of residence. Finally, following prior research (Lavine *et al.*, 1999), we also asked the respondents about their skin complexion—again using a seven-point scale from *Extremely fair* (1) to *Very dark* (7).

Our raw data were comprised of 527 women’s responses.⁵ We wanted to restrict the analyses only to people who had followed instructions diligently, participated only once, and were not outliers in terms of completion time. We therefore dropped the following: cases with the power recall response being either too short (less than 50 characters, typically only a string such as “nothing” or “no such incident”) or unrelated to the instructions (often with random text such as that copied and pasted from some Internet website), cases involving duplicate IP addresses, and cases with extreme completion time (less than five minutes or greater than 60 minutes). This led to a final sample size of 389 (74% of raw responses).

Findings from Experiment 1

Table 1a shows descriptive statistics for the key variables in each of the three experimental conditions, and univariate inferential statistics show disempowerment leads to increased interest in Pharma whitening creams ($p = 0.005$), but does not affect interest in Cosmetic whitening creams ($p = 0.599$). Thus the univariate findings are consistent with *Hypothesis 1*.

Insert Table 1a here

Table 1b shows regression analyses with covariates of the effects of disempowerment on preference for skin whitening products across six outcome variables: *Cosmetic Product Interest*, *Pharma Product Interest*, *Cosmetic Product Rating*, *Pharma Product Rating*, *Cosmetic Product Effectiveness*, and *Pharma Product Effectiveness*. Because the “neutral”

⁵ Our AMT task was actually not restricted to just women: as AMT cannot screen on gender, we were concerned men might otherwise lie about their gender to be eligible. For our reported analysis, we simply discard data from men. Analogous analysis on the male sample (available upon request) does not find any material effects. This is in line with our expectations, as although some men use skin whitening creams, the emphasis on fair skin is more pronounced for women and most men are personally uninterested in whitening products.

group levels were intermediary on all outcomes of interest, these regression analyses focus on the disempowered versus empowered contrast. We employ “Seemingly Unrelated Regression” (SUR) approach to account for the fact that the error terms between estimation equations might be correlated for the same respondent (though all results remain qualitatively unchanged if using OLS instead). Consistent with univariate analyses, Column 1 shows no material effect of being disempowered on *Cosmetic Product Interest* (coefficient = 0.23, se = 0.25, $p = 0.353$), whereas Column 2 shows a strong effect of being disempowered on *Pharma Product Interest* (coefficient = 0.75, se = 0.23, $p = 0.001$). This represents a predicted value of 4.50 for *Pharma Product Interest* of the disempowered women, which is substantially (nearly two-fifths a standard deviation) greater than that of 3.74 for the empowered women.

Insert Table 1b here

The result regarding disempowerment leading to increased preference for the pharmaceutical product but not the cosmetic product also holds when using *Cosmetic Product Rating* and *Pharma Product Rating* (Columns 3 and 4) as the dependent variables, providing further support to *Hypothesis 1*. The finding is also robust to outcomes of *Cosmetic Product Effectiveness* and *Pharma Product Effectiveness* (Columns 5 and 6).

EXPERIMENT 2 (USING QUALTRICS PANEL)

There might be concerns regarding our findings being AMT-specific, for example as the AMT sample is not nationally representative or the demographic information therein not independently verified. We therefore replicated our experiment using a consulting service called “Qualtrics Panel” from Qualtrics (a leading research and analytics firm), used in other research as potentially more reliable (though more expensive) than alternate platforms like AMT (Gromet, Hartson, and Sherman, 2015; Walters *et al.*, 2016). Specifically, we now constructed a new sample that was verified as Indian women between the ages of 18 and 40.

Design of Experiment 2

We again restricted our final sample to participants who had followed instructions on the power recall task, participated only once, and completed the experiment in a reasonable timeframe (5 to 60 minutes, median time to complete 17.2 minutes). We also added a few “attention checks” to ensure that responses only from individuals diligently answering the questions were considered (Berinsky, Margolis, and Sances, 2014; Chandler and Shapiro, 2016). For example, one of the items in the section eliciting preferences said “*This is an attention check. Please select ‘Not effective at all’ for this statement*”, and participants failing this check were screened out. We also built in some redundancy across questions to ensure data quality, such as only including observations where information regarding year of birth and age was internally consistent. Finally, respondents with no prior experience with skin whitening creams were dropped. The final sample size for Experiment 2 was 239 women.

The experimental design and measures in Experiment 2 were the same as in Experiment 1, with two exceptions. First, having established the “neutral” power writing as intermediary between the empowered and disempowered conditions (i.e., there are no curvilinear effects), we did not include this condition in the replication study. Second, in addition to all the control variables included in Experiment 1, Experiment 2 also captured two other factors: *Whitening Cream Use Frequency* to capture a woman’s frequency of use of skin whitening creams and *Weekly Working Hours* to measure how long every week she worked in some form of employment or income-generating activities.

Findings from Experiment 2

Table 2a shows descriptive statistics for the key variables by experimental condition and univariate inferential statistics show disempowerment leads to increased interest in Pharma whitening creams ($p = 0.003$), but does not affect interest in Cosmetic whitening creams ($p = 0.846$). These results are consistent with *Hypothesis 1* as well as Experiment 1.

Insert Table 2a here

Analogous to Table 1b for Experiment 1, Table 2b shows the regression results for Experiment 2. Column 1 shows no material effect of being disempowered on women's *Cosmetic Product Interest* (coefficient = 0.05, se = 0.25, $p = 0.836$), whereas Column 2 shows a strong effect of being disempowered on women's *Pharma Product Interest* (coefficient = 0.59, se = 0.21, $p = 0.006$). Once more, these findings support *Hypothesis 1*, and are also similar to those of Experiment 1. As before, these results are also robust to using either *Cosmetic Product Rating* and *Pharma Product Rating* (Columns 3 and 4) or *Cosmetic Product Effectiveness* and *Pharma Product Effectiveness* (Columns 5 and 6) as the dependent variables instead for capturing preferences of the participants.

Insert Table 2b here

DISCUSSION AND CONCLUSION

This research note brings new evidence to inform the issue of CSR in the context of marketing of controversial products. Specifically, we have examined how an experimentally induced state of disempowerment influences women's preferences for skin whitening products in India. Our findings provide some of the first empirical evidence to our knowledge speaking to management scholars' debate on whether fairness creams empower through choice or entrench biases (Hammond and Prahalad, 2004; Karnani, 2007). Randomized assignment of participants into different conditions enables us to draw causal inference, and two experiments using different participant samples show consistent evidence that disempowerment increases women's preference for the strong but risky (pharmaceutical) skin whitening creams, but not for mild but safe (cosmetic) skin whitening creams.

Our findings reinforce a perspective that disempowered people might be more vulnerable to decision biases that negatively affect their own long-term well-being

(Haushofer and Fehr, 2014). Our specific contribution is to the debate on how skin whitening products can perpetuate sociocultural biases and lead to exploitation of vulnerable women (Karnani, 2007). Rather than considering the skin whitening sector as being homogenous, we bring a nuanced perspective that considers product differences in the extent of expected effectiveness and the potential health risks that go along with these. Our findings show that women in a state of disempowerment might indeed be more vulnerable to cultural messages about their appearance placing them at increased risk of using certain products such as strong skin whitening creams that inflict greater long-term harm.

We have examined just one part of the interconnected and complex processes underlying sociocultural biases, colorism, and women's disempowerment. It is beyond the scope of this paper to conclusively settle how the observed lack of a significant association between disempowerment and preference for the milder (cosmetic) skin whitening creams ought to be interpreted. One view could be that such products sold by established self-regulating firms are largely innocuous. However, a counter-argument might be that marketing of these products nevertheless reinforces biases related to colorism, hence still having a spillover effect. In this view, sales of riskier products might be eliminated if the reputed firms were not creating demand for the overall sector.⁶ Future research could explore this possibility, for example, by studying whether advertisements for the mild skin whitening creams affect participant preference for the riskier creams.

Admittedly, both our experiments involve a temporary disempowerment prime and a participant pool unlikely to represent the most vulnerable women (who are likely not to be reachable through English-language surveys or online platforms). A natural extension of this study would be to conduct experiments specifically involving low-income consumers

⁶ The likelihood of such spillover effects often also comes up in the context of other controversial products, such as marketing for cigarettes increasing the demand for harmful tobacco products (including domestically made "bidis" in India) and that for modern liquor increasing the demand for alcohol in general (including moonshine, which is of questionable quality and often leads to severe side effects including numerous deaths every year).

(Christensen, Siemsen, and Balasubramanian, 2015). It would also be of interest to conduct analogous studies for other types of products—both within the beauty sector (e.g., other controversial beauty products) and beyond (e.g., high-calorie and low-nutrition foods and beverages; see Dubois, Rucker, and Galinsky, 2012)—and investigate how the issues we have examined for skin whitening creams manifest in these other contexts.

Resolving the issue of how to ensure companies conduct business responsibly is particularly important for countries with underdeveloped institutions (Khanna and Palepu, 2013). Creating intermediaries that protect rights of vulnerable segments, educate customers, reduce information asymmetries and coordinate sector-level efforts can potentially help align market outcomes with societal interests. Rather than relying only on self-regulation by firms or only on policy enforcement, one view is that the most effective approach is an appropriate balance and integration of the two (Mahoney, McGahan, and Pitelis, 2009; Mendoza, 2015).

Many scholars question whether firms would self-regulate and be socially responsible on their own, and consider policy intervention a more effective solution (Chatterji and Listokin, 2007; Fleming and Jones, 2013; Karnani, 2007). Such arguments often turn into ideological debates regarding whether firms can or even should focus on anything other than profitability and shareholder value (Freeman *et al.*, 2010; Friedman, 1970; Stout, 2012; Weitzel and Rogers, 2015). So a less controversial direction continues to be identifying conditions under which a firm can make a “business case” for being socially responsible (Bode, Singh, and Rogan, 2015; Cheng, Ioannou, and Serafeim, 2013; Henisz, Dorobantu, and Nartey, 2014; Klein *et al.*, 2012; Madsen and Rodgers, 2015; Muller and Kräussl, 2011). At the same time, we consider it important for academics not to consider societal impact only as an instrument for business. Following Hinings and Greenwood (2002), research on strategy and organizations could do more to also develop insight into how “organizations affect the pattern of privilege and disadvantage in society” (p. 411) and avoid being seen as

serving “merely as a contemporary tool for senior managers” (p. 419). Our hope is that more research will embrace this challenge.

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Table 1a. Descriptive statistics for the participant sample in Experiment 1

Variables	Empowered Group (N=128)		Neutral Group (N=136)		Disempowered Group (N=125)		Disempowered - Empowered	
	Mean	Std Dev	Mean	Std Dev	Mean	Std Dev	t-stat	p-value
Dependent variables								
<i>Cosmetic Product Interest</i>	4.66	2.10	4.72	2.01	4.79	2.00	0.53	0.599
<i>Pharma Product Interest</i>	3.78	2.01	4.17	2.03	4.46	1.74	2.85	0.005
<i>Cosmetic Product Rating</i>	4.65	1.74	4.74	1.67	4.66	1.72	0.04	0.972
<i>Pharma Product Rating</i>	3.98	1.69	4.37	1.70	4.43	1.50	2.27	0.024
<i>Cosmetic Product Effectiveness</i>	4.80	1.86	5.15	1.60	4.94	1.82	0.64	0.525
<i>Pharma Product Effectiveness</i>	3.96	1.66	4.24	1.66	4.61	1.61	3.15	0.002
Control variables								
<i>Married</i>	0.81	0.40	0.79	0.41	0.75	0.43	-1.01	0.315
<i>Age</i>	31.7	7.73	31.4	7.87	31.6	6.98	-0.12	0.905
<i>Education</i>	5.38	0.56	5.31	0.59	5.38	0.73	0.11	0.912
<i>Household Income</i>	5.02	2.76	4.64	2.86	5.11	2.99	0.27	0.790
<i>Skin Complexion</i>	2.84	1.23	2.96	1.05	3.10	1.14	1.69	0.091

Note: *Cosmetic Product Interest*, *Pharma Product Interest*, *Cosmetic Product Rating*, *Pharma Product Rating*, *Cosmetic Product Effectiveness*, and *Pharma Product Effectiveness* are measured on seven-point scales. *Married* indicates marital status. *Age* is measured in years. *Education* is 6 for post graduate, 5 for graduate, 4 for Grade 12 or equivalent, 3 for Grade 10 or equivalent, 2 for between Grades 5 and 9, and 1 for below Grade 5 (including no formal schooling). *Household Income* takes a value of 1 for monthly household income less than Rupees 10,000 and 11 for at least Rupees 100,000, with intermediate values 2 through 10 denoting income bands increasing in Rupees 10,000 intervals. *Skin Complexion* is self-reported as 1 for extremely fair, 2 for fair, 3 for slightly fair, 4 for neither fair nor dark, 5 for slightly dark, 6 for dark, and 7 for very dark.

Table 1b. Regression analysis comparing disempowered versus empowered participants in Experiment 1

Dependent variables	Cosmetic Product	Pharma Product	Cosmetic Product	Pharma Product	Cosmetic Product	Pharma Product
	Interest	Interest	Rating	Rating	Effectiveness	Effectiveness
	(1)	(2)	(3)	(4)	(5)	(6)
<i>Disempowered</i>	0.228 (0.245) [0.353]	0.752 (0.234) [0.001]	0.086 (0.205) [0.676]	0.518 (0.198) [0.009]	0.261 (0.227) [0.248]	0.662 (0.203) [0.001]
<i>Married</i>	0.914 (0.331) [0.006]	-0.366 (0.315) [0.245]	0.824 (0.276) [0.003]	0.312 (0.267) [0.242]	0.638 (0.305) [0.037]	-0.145 (0.273) [0.595]
<i>Age</i>	-0.064 (0.019) [0.000]	-0.035 (0.018) [0.048]	-0.052 (0.016) [0.001]	-0.037 (0.015) [0.014]	-0.026 (0.017) [0.134]	-0.020 (0.016) [0.178]
<i>Education</i>	-0.188 (0.190) [0.323]	0.076 (0.181) [0.673]	-0.183 (0.158) [0.246]	0.088 (0.153) [0.564]	-0.139 (0.175) [0.425]	-0.043 (0.157) [0.780]
<i>Household Income</i>	-0.056 (0.045) [0.196]	-0.057 (0.042) [0.182]	-0.054 (0.037) [0.143]	-0.066 (0.036) [0.063]	-0.065 (0.041) [0.109]	-0.081 (0.037) [0.026]
<i>Skin Complexion</i>	-0.164 (0.105) [0.119]	-0.168 (0.100) [0.093]	-0.194 (0.086) [0.026]	-0.163 (0.085) [0.054]	-0.232 (0.097) [0.016]	-0.012 (0.087) [0.890]
Constant	7.907 (1.333) [0.000]	5.019 (1.269) [0.000]	7.698 (1.109) [0.000]	5.201 (1.074) [0.000]	7.433 (1.229) [0.000]	4.342 (1.098) [0.000]
Observations	253	253	253	253	253	253
R-squared	0.164	0.131	0.187	0.127	0.119	0.140

Note: These results are based on a Seemingly Unrelated Regression (SUR) framework that accounts for correlation in the error terms across different models. Standard errors in parentheses; p-values in square brackets; indicators for state of residence employed but not shown.

Table 2a. Descriptive statistics for the participant sample in Experiment 2

Variables	Empowered Group (N=122)		Disempowered Group (N=117)		Disempowered - Empowered	
	Mean	Std Dev	Mean	Std Dev	t-stat	p-value
Dependent variables						
<i>Cosmetic Product Interest</i>	4.40	2.07	4.45	2.01	0.19	0.846
<i>Pharma Product Interest</i>	4.34	1.80	5.00	1.55	3.01	0.003
<i>Cosmetic Product Rating</i>	4.52	1.75	4.50	1.76	-0.07	0.943
<i>Pharma Product Rating</i>	4.49	1.50	4.95	1.34	2.48	0.014
<i>Cosmetic Product Effectiveness</i>	4.35	1.60	4.52	1.67	0.80	0.425
<i>Pharma Product Effectiveness</i>	4.31	1.42	4.79	1.33	2.66	0.008
Control variables						
<i>Married</i>	0.69	0.47	0.60	0.49	-1.46	0.146
<i>Age</i>	29.5	5.69	29.3	6.03	-0.18	0.860
<i>Education</i>	5.48	0.56	5.35	0.59	-1.78	0.076
<i>Household Income</i>	4.99	1.22	5.09	1.22	0.59	0.553
<i>Skin Complexion</i>	2.90	1.09	2.92	1.10	0.09	0.927
<i>Whitening Cream Use Frequency</i>	4.43	1.45	4.03	1.41	-2.12	0.035
<i>Weekly Working Hours</i>	3.07	1.50	3.45	1.53	1.97	0.050

Note: *Household Income* is defined on a different scale in this experiment (1 for monthly household income less than Rupees 5,000 and 7 for more than Rupees 160,000, with intermediate values 2 through 6 denoting income bands increasing in logarithmic order). The new variable *Whitening Cream Use Frequency* takes one of seven values: 1 for non-usage (observations dropped), 2 for at most once per month, 3 for more than once per month, 4 for more than once per week, 5 for almost daily, 6 for every day, and 7 for multiple times per day. Finally, *Weekly Working Hours* takes one of five values: 1 for less than 10 hours a week, 2 for 10-20 hours a week, 3 for 20-30 hours a week, 4 for 30-40 hours a week, and 5 for more than 40 hours a week. The remaining variables are same as in Table 1a.

Table 2b. Regression analysis comparing disempowered versus empowered participants in Experiment 2

Dependent variables	Cosmetic Product	Pharma Product	Cosmetic Product	Pharma Product	Cosmetic Product	Pharma Product
	Interest	Interest	Rating	Rating	Effectiveness	Effectiveness
	(1)	(2)	(3)	(4)	(5)	(6)
<i>Disempowered</i>	0.052 (0.252) [0.836]	0.585 (0.213) [0.006]	-0.013 (0.213) [0.952]	0.422 (0.181) [0.020]	0.175 (0.196) [0.371]	0.425 (0.179) [0.017]
<i>Married</i>	0.612 (0.356) [0.086]	-0.660 (0.300) [0.028]	0.496 (0.301) [0.099]	-0.589 (0.255) [0.021]	0.620 (0.277) [0.025]	-0.291 (0.253) [0.250]
<i>Age</i>	-0.014 (0.031) [0.653]	0.044 (0.026) [0.085]	-0.011 (0.026) [0.672]	0.045 (0.022) [0.039]	0.001 (0.024) [0.950]	0.042 (0.022) [0.052]
<i>Education</i>	-0.174 (0.241) [0.470]	-0.177 (0.203) [0.383]	-0.143 (0.203) [0.481]	-0.230 (0.173) [0.183]	-0.077 (0.187) [0.680]	-0.185 (0.171) [0.278]
<i>Household Income</i>	0.008 (0.112) [0.943]	0.008 (0.094) [0.934]	-0.018 (0.095) [0.852]	-0.034 (0.080) [0.674]	-0.083 (0.087) [0.339]	-0.101 (0.079) [0.202]
<i>Skin Complexion</i>	-0.365 (0.114) [0.001]	-0.121 (0.096) [0.204]	-0.324 (0.096) [0.001]	-0.180 (0.081) [0.027]	-0.272 (0.088) [0.002]	-0.117 (0.081) [0.146]
<i>Whitening Cream Use Frequency</i>	0.277 (0.086) [0.001]	0.328 (0.073) [0.000]	0.262 (0.073) [0.000]	0.267 (0.062) [0.000]	0.159 (0.067) [0.017]	0.163 (0.061) [0.008]
<i>Weekly Working Hours</i>	0.244 (0.093) [0.009]	0.187 (0.079) [0.017]	0.224 (0.079) [0.004]	0.129 (0.067) [0.054]	0.278 (0.072) [0.000]	0.144 (0.066) [0.030]
Constant	5.157 (1.506) [0.001]	2.868 (1.269) [0.024]	5.334 (1.271) [0.000]	3.912 (1.080) [0.000]	4.901 (1.170) [0.000]	4.449 (1.068) [0.000]
Observations	239	239	239	239	239	239
R-squared	0.240	0.235	0.265	0.219	0.284	0.185

Note: These results are based on a Seemingly Unrelated Regression (SUR) framework that accounts for correlation in the error terms across different models. Standard errors in parentheses; p-values in square brackets; indicators for state of residence employed but not shown.