

# Relation between workplace stereotypes, explicit attitudes and implicit attitudes

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**Abstract.** With the increasing number of international contacts and the rapid development of global trades, the company's workforce is becoming more diverse. The problem of Stereotypes and Attitudes has jeopardized the relationship between employees, which increases the phenomenon of inequality and discrimination in the workplace. In order to find possible solutions for such problems, this paper reviewed multiple articles and tried to look at Stereotypes and explicit and implicit attitudes from a different angle. While there is relatively less literature regarding the topic of possible relationship between stereotypes and attitudes, a few research articles helped to infer possible connections between them: explicit attitudes can exacerbate the contradiction of stereotypes; and implicit attitudes also affect the formation of stereotypes unconsciously. Because implicit attitudes affect people's behaviour unconsciously, diving into it with more details, few articles have suggested it is possible to change individuals' implicit attitudes, and the duration is able to last in the long term. Based on these reviewed articles, it has come to a conclusion that Attitudes play an important role in impacting the formation of Stereotypes. This paper intends to help reduce stereotype issues and offer possible solutions to decrease workplace inequality and discrimination.

## 1. Introduction

In recent years, the phenomenon of inequality and discrimination in workplaces has become a hot topic of concern in societies around the whole world. While gender discrimination has prevented many competent and skilled women from getting suitable jobs or prevented the female group from getting jobs at all; Race inequality has also affected the hiring process among marginal race groups and caused the unemployment rate of other races to be higher than in the past. Besides that, biases in workplaces also damaged the relationship among employees themselves and their relationship with co-workers as well. Stereotype problems can be seen between each individual and might cause tensions within group members. For example, when a working group contains multi-ethnic employees or people from different cultural backgrounds, their opinions might not be valued as important nor they might not even have a voice to express their different points of views at all. As these team members are being stigmatized and not respected, team collaboration loses its original purpose of collecting different perspectives and trying to come up with a suitable plan, to bring success to the companies and promote future developments for both companies and individuals as well.

Stereotype issue is one of the main causes of workplace inequality and discrimination. A study reviewed by Hoyt and Murphy (2016) has included the broader categories of research addressing stereotypes threat effects in the workplace and in tasks and domains related to leadership [1]. In addition, biased behaviors might also be due to people's

implicit and explicit attitudes toward one another. As one of the important areas to review, implicit attitudes function in an unconscious and unintentional manner. Sometimes people are not aware of their implicit biases towards certain groups, yet their behaviors can still be negative towards others. This review paper intends to introduce the topic of stereotypes along with possible relationships between stereotypes and implicit/explicit attitudes, and try to find possible solutions to the problem of reducing workplace biases.

## 2. Definition of variables

### 2.1 Stereotype

While Stereotyping is a kind of cognition or beliefs about how people categorize and label a person, it can be defined as a belief that associates a whole group of people with certain traits. For example, common race stereotypes can be that "Asian is good at math", "Asian can not speak fluent English", or "Black people are more violent than the other race"; Gender stereotype can be that female is not competent in what they do; Age stereotypes can be that older people are not as efficient as others, or the fact that they are more stubborn and inflexible when dealing with problems. These can all be seen as some common stereotypes that exist in the societies around the whole world, which has made a great impact on people's workplace conditions as well.

### 2.2 Gender stereotypes and its uniqueness

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Among all stereotypes, gender stereotypes are distinct in a way that they are not only descriptive but also prescriptive. They tell people what they should act. For example, males are raised to be masculine and not emotional, they are seen to be dependable and reliable ; while females are supposed to be nurturing offsprings, as women should be the ones who take care of what is inside he home.

Nowadays, it has come to attention that women are underrepresented and men are overrepresented in senior leadership roles and Science, Technology, Engineering, Mathematics (STEM) occupations. In a study conducted by Cundiff and Vescio, they found that gender stereotypes offer plausible explanations for these differences, which often attribute them to different characteristics of men and women. The goal of their current study was to determine whether stereotypes have an impact on how prejudice is attributed. According to the expectations, undergraduate participants who highly vs. weakly supported gender stereotypes were less likely to believe that discrimination is the cause of gender differences in the workplace, whether chronically (study 1, N = 147) or given a situational cue (study 2, N = 258). Additionally, participants unintentionally assigned more blame for discrimination to the explanation of gender gaps in leadership roles than in STEM occupations. In other words, this experiment has shown that both chronic experiment and situational primed experiment are less likely to believe that discrimination is the cause of gender differences in the workplace [2]. This finding raises the possibility that treatments to combat gender discrimination may need to adapt their approaches depending on the situation, which also suggests that gender discrimination interventions may need to adopt various tactics depending on the situation.

A study on improving decisions has suggested that there are six research-based strategies including blinding decision-making, substituting, articulating new norms, evaluating candidates, individuating and educating can help to alleviate these biases [3]. For example, eliminating the importance of gender as a factor in the decision is one strategy to eradicate the impacts of gender biases in decision-making. Other strategies can be : 1) substituting : in situations where gender as a factor can nit can not be ignored, it can be beneficial to consider if people would reach the same conclusion if they were judging a male instead of a female, as opposed to ignoring gender. 2)articulating new social norms: organizations should have senior leaders openly declare new social norms that all work-related actions are legitimating whether carried out by men or women in order to encourage the equal acceptance of women and men partaking in the same behaviors. Other strategies including evaluating candidates jointly, individuating and educating [3].

Gender stereotypes are of great significance for people to understand and acknowledge discrimination. Only after people have a full understanding of gender stereotypes, can society better understand and tolerate the difficulties men and women are facing, so as to standardize gender inequality in the workplace, and bring more employment opportunities to women who have skills and are capable of doing certain jobs.

Acknowledging discrimination is an important first step in addressing the problem.

## **2.3 Defining explicit and implicit attitudes in general**

As for explicit and implicit attitudes, explicit attitudes often operate at conscious level and can be best measured by traditional, self-report measures. Just like people may have a preference for sweet taste over spicy food, they might consciously prefer someone who is skinny over someone who has a curvier body shape. However, implicit attitudes often function in an unconscious and unintentional manner, and sometimes individuals themselves do not realize the fact that they have preferences towards certain groups.

Nowadays, implicit attitudes can be measured by Implicit Association Test, (IAT). The test uses people's reaction time, and it measures the speed with which one associates pairings of concepts in order to reveal implicit biases about many groups, such as young/old, fat/thin, and gay/straight. For example, an IAT test intend to measure whether people have implicit attitudes that they are not aware of towards people who are homosexual or heterosexual and will let participants pairings good and bad words to these certain groups. In the mean time, their reaction time is measured. If it takes individuals a longer time to pair the good words with people who are homosexual, then they may have a slight preference towards those who are homosexual.

## **2.4 Diving deep for implicit attitudes**

Because implicit attitudes operate at an unconscious level, the test result can be surprising. For example, an individual thinks himself has no preferences towards any population, the fact that he could preference straight people over gay people. Despite the fact that people may hold explicit or implicit attitudes towards things that are not changeable like gender or race, minimal research has looked at implicit opinions towards things people may add to themselves. A study about people's implicit opinions and possible connections between implicit and explicit attitudes towards tattooed population has revealed evidence for negative implicit attitudes – they were linked to lower levels of perceived friendliness, skill, and unfavorable explicit judgments [4]. Implicit views, however, did not link with social isolation or disgust scales. Additionally, whereas other markers of individual uniqueness, such as having a tattoo, identifying as a political person, and having internal or external motives to respond without prejudice, did not predict implicit prejudice, age did. These results are presented in terms of how attitudes about people with tattoos may be complex, and how evaluating implicit and explicit attitudes may be useful in research for the future. Circle back to stereotypes mentioned above, more studying is needed in figuring whether such attitude affect the way people stereotype others. In other words, is it possible that stereotyping has any effect in people's explicit and implicit attitudes, or vice versa.

### 3. Connections between stereotypes, explicit and implicit attitudes

For starters, despite there are not many articles that study the relationship between explicit and implicit attitudes and stereotypes, a few articles have made important assumptions and can be used to speculate how these attitudes and stereotypes interact and affect one another.

According to partial Table 1 below, the chart uses means and correlations and shows six implicit and explicit

Attitudes about different social groups. The ranking of the implicit and explicit attitudes correlation seems to be the highest n sexuality (0.42), followed by race (0.32); then the correlation for skin tone (0.21); the lower range of correlation here seems to be disability (0.14) and age (0.12). While the correlation *r* between implicit and explicit attitudes shows whether there is a linear dependence between people’s attitudes, a higher correlation suggests that people’s implicit and explicit attitudes are more aligned with one another.

**Table 1.** Means and Correlations for Six Implicit and Explicit Social-Group Attitudes

		Implicit Attitudes				Explicit Attitudes				Correlation between explicit and implicit attitudes		
Attitudes	N	M(SD)	95% CI	t	d	M(SD)	95% CI	t	d	r	95% CI	t
Sexuality	692,425	0.29 (0.48)	[0.29, 0.29]	495.24	0.60	0.54 (1.27)	[0.54, 0.54]	354.92	0.43	0.42	[0.41, 0.42]	381.61
Race	1,851,445	0.32(0.44)	[0.32, 0.32]	972.40	0.71	0.32(1.13)	[0.32, 0.32]	385.05	0.28	0.32	[0.32, 0.32]	459.66
Skin Tone	488,330	0.31(0.43)	[0.31, 0.31]	510.57	0.73	0.28 (1.00)	[0.28, 0.29]	197.60	0.28	0.21	[0.21, 0.22]	153.34
Age	588,230	0.44(0.39)	[0.44, 0.44]	857.74	1.12	0.50 (1.23)	[0.50, 0.51]	314.24	0.41	0.12	[0.12, 0.13]	96.20
Disability	191.499	0.49 (0.44)	[0.49, 0.49]	493.63	1.13	0.49 (0.96)	[0.48, 0.49]	221.55	0.51	0.14	[0.14, 0.15]	63.17

Note: All means and correlations are significantly different from zero ( $p < .001$ ). C = confidence interval.

Implicit attitudes about stereotypes at work have not substantially decreased. One study uses three occupations: engineer, accountant and teacher, which served as three extremes and center of a clear masculine-feminine vocational gender continuum. Researchers used IAT test to assess their implicit stereotypes and result showed that whether gender stereotypes for these occupations is diminishing or not remain unclear [5]. Another study also suggests that repeated exposure to material affects (in this case, social media) on viewers implicit attitudes – has automatically triggered feelings about this social group, which may then serve as the foundation for implicit attitudes. Three empirical researches took place in two different cultural situations – in Austria and United States. The result has shown that consistent exposure to stereotyped news coverage fosters unfavorable implicit views that can change explicit attitudes [6]. Besides, another study reviewed multiple articles and used meta-analysis on 82 older persons who have undergone ABST (Age Based Stereotype Threat), and concluded that older people are more susceptible to ABST when stereotype-based rather than fact-based manipulations are utilized. Not to mention the fact that elderly people have already faced a lot of challenges in workplace as well. Cognitive performance is examined and age-related cognitive decline is assessed [7]. Based on these studies, it can be inferred that stereotype threats have affected how individual feels at workplace and may have a negative impact on their performance at the same time. To an extent, people’s implicit attitudes also affect the formation of stereotypes unconsciously.

Moreover, as explicit and implicit attitudes may have a greater effect in people’s behaviors, there is a study that intends to find patterns of implicit and explicit attitudes in

the long term [8]. The experimenters used time-series models to look at the patterns of long-term change in six social-group attitudes : sexual prieration, race, skin tone, age, disability, and body weight. All explicit responses demonstrated a shift toward attitude neutrality even within a decade. Parallel implicit responses also exhibited shifts away from neutrality for views regarding body weight, color and skin tone, but they showed long-term stability for attitudes toward age and handicap. These data offer previously unobtainable evidence for long-term implicit attitudes development and stability across a variety of social groupings. The data can be utilized for studying attitudes in the future.

### 4. Malleability of implicit attitude

Regarding the topics of stereotypes and attitudes, implicit attitudes seem to play an important role in people’s behaviors and studies have shown evidence about how implicit attitudes might be possible to change. In order to have a better understanding of the topic of implicit attitudes and see if there is any possible ways to change it, two articles are used as references: one by Flaharty & Ferguson another by Ofofu et al. [9, 10]. As researchers in the Ofofu et al. article have found that government legislation has positive effects in changing an individual's attitude and reduces biases, Flaharty and Ferguson have also found in their studies that the effects of new information on implicit impressions people form towards others are expected to last longer.

As both two articles touch bases on implicit attitude and suggest ways regarding whether there are possible ways of

changing the attitudes in order to reduce biases, the Ofosu et al. uses same-sex marriage as an example to further explain their ideas on how legalization can be associated with reducing both implicit and explicit antigay biases. They first start the article by stating the importance of social norms and the “rule of the people”. As researchers find out there is some evidence suggesting government policies can change people’s attitudes and the fact that there are not many studies that examine possible effects of government policy on explicit and implicit attitudes especially towards marginal social groups, they decide to study the relationship between legislation and citizens’ attitudes at another level [10]. One of the strengths of this study is that there are multiple different models used in the process to make sure the result is generalized and comprehensive. More than 1 million U.S. population have participated in the study over a 12-year period. While the first model contained participants who are only heterosexual, the result might not be representative enough for the whole population.

The second model involved participants with unreported sexuality and the result suggested similar things, including enhanced results that biases decreased faster with the legalization. The third model took another step to make the study more comprehensive by doing a replication study with a national representative dataset that involved more U.S. population. As the database became more generalized, researchers also analyzed whether state- or federal-level legalization would make a difference, and the result did show that the locality of legislation may be an important moderator in affecting the explicit and implicit biases. Further in the discussion, the evidence showed that true changes in reducing citizen’s biases and their change of attitude worked better under government legislation.

Despite the strengths of this study, one of its great weaknesses is that there is no evidence suggesting whether this finding is objective with any other country’s legislation as well. Moreover, even though the example used in this study about same-sex marriage is a great example, is this a “typical” example? In other words, if the biases people are trying to reduce are not just about people’s sexual orientation, but internal attribution like skin color, or gender, things are obvious to be detected and easier for others to make assumptions in the first impression. Will the result still be the same? This study does not address similar questions properly. In this case, circling back to the question of whether new norms in the workplace can reduce people’s attitudes remains unclear, as their behaviors might change, attitudes are not a good predictor of behaviors.

The other article regarding the effects of implicit attitudes on impressions in the long-term as new information comes in, the study analyzes implicit expressions in aspects of flexibility and the consolidation of duration. The strength of this study is its rigorous and thorough experiment methods. Such a clear and comprehensive scientific research design makes the experiment itself highly credible, and the discussion of the experimental conclusions also provides inspiration for future studies regarding the topic of implicit attitudes and its other effects. For example, in order to test how implicit impressions changed as new information came in, this experiment separated the overall process into different times and different sessions. The wording experimenters used to engage with participants was also

carefully said to make sure no other factors might make a difference to the experiment. Participants in this study have also been recruited from different backgrounds within the US population.

Besides that, the experiment also tried to exclude possible subjective influences participants might bring, when they excluded results from participants who self-reported speaking Mandarin or Cantonese in the method process, as they may interfere with the results of the experiment. The conclusion of this study suggests that implicit impressions people have can be updated as new information comes in, the diagnosed changes and its credibility is also power. Despite the fact that this study is comprehensive enough and also discusses various results from several aspects, the practical implications of the results remain unclear. Since the experiment creates fictional characters and the information participants receive is told to them directly without actual personal interaction with this “character”, will the conclusion be the same if participants interact with someone in their real life? For example, individuals’ dressing styles or their tone of voice may affect the way people form their implicit impressions. And sometimes there can be information that people perceive unconsciously. How does this new information without conscious awareness affect people’s implicit impressions? Can such impressions also be updated and last in the long term?

As this paper tries to review implicit attitudes from a different angle and specifically view the problem under workplace conditions, both articles used for reviewing suggest how implicit attitudes might change. Even though the Ofosu et al. article lacks objectivity in stating whether legislation in other countries would have similar effects, it does demonstrate the important role government legalization plays in shaping and reducing people’s explicit and implicit biases. The other article is also comprehensive enough to reach the conclusion that people’s implicit impressions can change and be updated as new information comes in, and the effect is shown to be long-term. Both articles talk about how implicit attitudes can be updated and changed no matter if it is due to external factors like government legalization, or internal cues regarding individual experiences and characteristics, and such implicit impressions tend to last longer.

## 5. Conclusion

The findings in these articles provide perspectives regarding what people can do to change and improve current working situations. Despite those measures that have already been used (according to Employment Law) that people can use to protect their rights, this paper tries to understand and solve the problems of stereotyping at a deeper level, using knowledge of explicit and implicit attitudes, and focuses on how attitudes might affect people’s behavior unconsciously. For example, will the new norms in the workplace help to regulate people’s behaviors? In order for behaviors and attitudes to be matched due to cognitive dissonance, and the fact that people always want to reduce dissonance aroused by the discrepancies between attitudes and behaviors, if there are certain norms that regulate people’s behaviors, will

their attitudes change as well? For example, new norms can be: talking with others with respect, and which means no jokes about gender or race-related content are allowed in the workplace; or it can be: no judging of candidates' ages or their looks during the hiring process. While norms like these already existed along with other "unspoken rules", the rule-breaking process sounds too subjective and there is not always punishment when it comes to breaking the rules. Just like everybody knows that people are supposed to show respect in the workplace, they are also aware that this is not what is happening. Moreover, should companies increase team collaborations between employees so that people's attitudes might change as new information comes in? These are all questions that are worth diving deep into.

In this case, the overlap between these articles has laid a good foundation for people to better study the application of implicit (along with explicit) attitude in real-life cases, so that people can all participate in promoting a better development for both companies and individuals as well.

It is a shared responsibility for people to create measures to lessen prejudice if there is a better grasp of the consequences of stereotypes, which could help to create a more open and humane society around the world.

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