A compliment’s cost: How positive responses to non-traditional choices may paradoxically reinforce traditional gender norms

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Abstract
In times of societal change, like changes in gender roles, one may compliment men deciding to spend more time on childcare, or women pursuing a job higher up, to support their pioneering behaviour. However, we predict that while compliments may communicate appreciation of someone’s behaviour, they simultaneously communicate that a norm has been breached, and thus that the behaviour is not considered ‘normal’. In four studies (total N = 821), we show that men receive more compliments for reducing work hours for childcare than women (Study 1). Moreover, compliments (compared to neutral responses) signal more descriptive norm deviance, and this has downstream consequences for perceptions of the target’s gender belonging and decision doubt and for perceived societal norms (Studies 2–4). Together, these findings contribute to our understanding of normative communication patterns as well as potential paradoxical reinforcement of gender norms through compliments.

Keywords
communication, gender roles, norms, social interaction, societal change
INTRODUCTION

Our everyday social interactions are pivotal in communicating and negotiating social and cultural norms (e.g., Bandura, 1977; Cialdini & Trost, 1998). Usually, interactions start with some level of common ground; conversation partners take for granted a set of presuppositions as part of the background of communication. Information that conforms social norms or stereotypes validates the common ground and is therefore easily processed in conversations (Castelli et al., 2009; Lyons & Kashima, 2003). In changing social environments, however, pioneers (i.e., people who are among the first to show behaviour that deviates from a norm) introduce information that departs from traditional norms, and is not (yet) part of the common ground. In such cases, people jointly have to establish a shared understanding, a process that is called ‘grounding’ (Clark, 1996; Kashima et al., 2007; Stalnaker, 1978).

Consider the following exchange between two long-lost friends, Mark and Tom. Mark indicates that he is becoming a father and will reduce his working hours to 60% to care for the baby (a non-traditional, or pioneering, gender behaviour, as traditionally women are more likely than men to reduce their working hours for childcare; Stone, 2007). Tom congratulates Mark on the baby and asks what kind of work he does. In this example, Tom accepts the statement of Mark reducing work hours as part of the common ground, and continues from there. Through this smooth continuation of the interaction as if nothing happened, Tom grounds the statement and it can be inferred he accepts it (Koudenburg et al., 2020).

Now consider that Tom had responded differently to Mark’s statement of reducing work hours: ‘Wow, great that you are doing this!’ At first glance, such a compliment (a speaker’s attribution of credit to a target for a ‘good’ behaviour or characteristic; Holmes, 1986) may seem like a positive reinforcement of the behaviour. Studies in pragmatics and sociolinguistics indeed indicate that compliments promote a positive relation between the giver and target (Holmes, 2003; Wolfson, 1983), provide important information about what is valued in a context (Johnson & Roen, 1992; Rees-Miller, 2011; Wolfson, 1983) and serve to reinforce this behaviour (Manes, 1983). Likely, this is what Tom intended when complimenting Mark’s decision to reduce work hours to care for his baby.

Yet, from a perspective of grounding processes in conversations, Tom's compliment may not ground Mark's statement. Rather, sharing his positive evaluation may suggest that Mark's decision is subject to evaluation and thus not taken for granted or ‘normal’. Hence, while the compliment-giver’s intentions may be to reinforce a behaviour, it may paradoxically call that very behaviour into question.

We suggest this paradox lies in the distinction between two types of social norms that may be differentially affected by complimenting pioneering behaviour: prescriptive and descriptive norms (Cialdini et al., 1991; Prentice & Carranza, 2002). Prescriptive norms (also referred to as ‘injunctive norms’) reflect what we believe people should do, for instance, ‘we should eat healthy’. Descriptive norms reflect what most people actually do, for instance, ‘many people eat too much sugar’. We expect that a compliment reinforces prescriptive norms (‘you should reduce your work hours to care for your child’) as it signals one’s approval of the behaviour. Yet, we also expect that the compliment undermines descriptive norms because it communicates that the behaviour is uncommon (‘most men do not reduce work hours for childcare’). Both types of norms have been demonstrated to be important predictors of attitudes and behaviour (Cialdini & Trost, 1998; Meeussen et al., 2016; Turner, 1991). Therefore, a compliment may fail to reinforce a behaviour as it sends a mixed message: its prescriptive message reinforces the behaviour, yet its descriptive message discourages the behaviour. Previous research has indeed shown that when prescriptive and descriptive norms are conflicting, they are less likely to lead to behavioural change (Smith et al., 2012; Staunton et al., 2014). In this paper, we empirically investigate the normative inferences drawn from complimenting non-traditional choices and their perceived consequences for the compliment's target.

Gender norms in work and care

The consequences of compliments to those who deviate from social norms are highly relevant in times of potential societal transitions, as deviants may be the pioneers driving social change (Moscovici, 1976;
In the last decades, gender roles have been subject to change, with women increasingly entering the labour market and men taking up (some) more childcare responsibilities (England, 2010). At the same time, gender norms still exist, indicating that men are and should be more competent and work-oriented, and that women are and should be more caring and family-oriented (Haines & Stroessner, 2019; Mecussen et al., 2016; Prentice & Carranza, 2002). People are socialized into these expectations already early in life (Eagly & Wood, 2012; Martin & Ruble, 2010), and they may receive social punishments for deviating. For instance, men who want to take leave or reduce work hours to care for their children may be seen as less manly or less competent (Butler & Skattebo, 2004; Rudman & Mescher, 2013; Vandello et al., 2013), and women who pursue career ambitions or do not take maternity leave may be devalued as bad parents (Morgenroth & Heilman, 2017; Okimoto & Heilman, 2012).

Yet, in times of increasing gender equality, men and women may sometimes also receive compliments for deviating from traditional norms. For instance, interviews with parents evidenced that men were more often praised for their parental involvement than women, and women were more often praised than men for successfully combining family and work (Deutsch & Saxon, 1998). Such praise can be explained in light of the shifting standards model (Biernat, 2012; Biernat & Manis, 1994), which indicates that subjective judgements of a target are done in light of evaluative standards that are often based on stereotypes. As such, a father who reduces work hours to care for his child is likely to be evaluated more positively for this behaviour than a mother, because the father is compared to a stereotypically lower standard of parenting than the mother; and the reverse may be true for evaluations of working mothers compared to working fathers.

Thus, norm deviance should trigger both negative responses and compliments, while norm conformity should trigger more neutral responses. In a first study, we put this to an empirical test. We examine the likelihood of positive, neutral or negative responses to a man or woman reducing their work hours upon becoming a parent (Study 1). We expect that men will more likely receive compliments (H1a) or negative responses (H1b) and less likely receive neutral responses (H1c) for this decision compared to women.

Next, we investigate how compliments (vs. neutral responses) to men reducing work hours for childcare impact normative inferences (Studies 2–3). In line with the previously described studies in pragmatics and sociolinguistics, which indicate that compliments signal what is valued in a context (e.g., Johnson & Roen, 1992; Rees-Miller, 2011; Wolfson, 1983), we predict that compliments reinforce prescriptive norms (H2). Yet, building on research on grounding processes in communication (Clark, 1996; Koudenburg et al., 2020), we predict that compliments undermine descriptive norms (H3). We investigate this both for perceptions of proximal norms (i.e., norms in the specific social situation) and for perceptions of societal norms (i.e., norms in society more broadly). Given that social and cultural norms are communicated within social interactions (Bandura, 1977; Cialdini & Trost, 1998), it is likely that people infer societal norms from the proximal norms. Therefore, we predict that the impact of a compliment (vs. neutral response) on societal norms is mediated by proximal norms (H4). To test whether our theoretical reasoning on normative inferences of compliments holds beyond the context of men reducing work hours for childcare, we also test Hypotheses 2, 3 and 4 with a different group: Study 4 replicates our design with compliments given to a young mother applying for a job higher up.

Lastly, we investigate how compliments are perceived to affect their target. Specifically, we expect that if compliments signal a behaviour is not normal or common for one's gender group (H3), they may signal that the compliment's target is not a typical group member. This could serve as a threat to their gender group membership and therefore paradoxically discourage the complimented behaviour, as people generally want to fit in with their gender group to maintain a sense of belonging (Baumeister & Leary, 1995; Vandello et al., 2008). Studies 3 and 4 therefore examine the influence of the compliment on perceptions of the target's (wo)manhood as well as their gender belonging. We hypothesize that compliments (vs. neutral responses) lead to reduced perceived (wo)manhood in terms of warmth and competence ratings (H5a) and reduced perceived gender belonging (H5b) of the target. Lastly, we explored whether a compliment would increase perceptions of the target's doubt or guilt about their decision, and
whether compliments have downstream consequences for targets (in terms of (wo)manhood, decision doubt, and maternal guilt) through their effect on proximal norms inferred from conversations (mediation effect).

For all studies, we preregistered hypotheses, manipulation content, measures and planned analyses on OSF (https://osf.io/5bcdq/?view_only=8de8e3f7c834474d8fab5fc5dc5da2a6 and https://osf.io/6hd7t/?view_only=949c5f23273446a8b83ea57eafcd6c6e). All studies were approved by the Ethical Committee of the second author's institution. An overview of all measures, deviations from the preregistrations and results of additional exploratory analyses are described in the Supplementary Materials.

**STUDY 1**

Study 1 examines the perceived likelihood of positive, neutral or negative responses to men or women reducing their work hours upon becoming a parent (H1a-c).

**Methods**

**Sample**

Using a Prolific Academic sample, 136 participants living in the Netherlands and fluent in Dutch were assigned to a 2 (male condition vs. female condition; between subjects) × 3 (response valence: compliment, neutral, negative; within subjects) design. Two participants who did not pass the attention check (“If you read this, please select answer six”) were excluded. The final sample (N = 134) consisted of 64 female, 69 male, and one non-binary participant (M_age = 27.14, SD = 7.98). Sample characteristics for each study are summarized in Table 1. Sensitivity analysis was based on the effect size Cohen's $\omega$ for the change in $\chi^2$ when adding the condition by valence interaction to the model with main effects. Using the CHISQ_POWER function in Excel, a post-hoc power calculation revealed that a mixed-models analyses with 1608 measurements (i.e., 134 participants * 12 responses), with $\alpha = .05$, $df = 2$, yielded 96% power to detect a small effect ($\omega = 0.1$) and >99% power to detect a medium-sized effect ($\omega = 0.3$).
Design

Participants read a description of a conversation between two old acquaintances who meet each other after years. Both acquaintances are men in the male condition and women in the female condition (and this is the only difference between both conditions). In this conversation, one person indicates he/she will become a parent and has decided to reduce working hours to 60% once the baby is born to take up childcare responsibilities.

Participants are then asked to read 12 different potential responses: four compliments (e.g., ‘Wow, great that you are doing this!’), four neutral responses (e.g., ‘When do you expect your child?’) and four negative responses (e.g., ‘Why would you do that?’). For each response, they rate (1) the likelihood that each response were given by themselves and (2) by the acquaintance (7-point scales 1 = Very unlikely to 7 = Very likely), and (3) the perceived valence of each response (7-point scale, 1 = Very negative to 7 = Very positive).

Results

Valence manipulation check

We ran a mixed-model analysis with a random intercept, and response valence as a fixed within-subject factor (−1 = negative, 0 = neutral, 1 = compliment) predicting perceived valence of the 12 responses, nested within participants. The manipulation worked as intended: compliments were rated as significantly more positive ($M = 6.55$, 95% CI [6.44; 6.66]) than neutral responses (6.06, 95% CI [5.95; 6.17]), mean difference ($\Delta M$) = 0.49, SE = 0.07, $p < .001$, which were significantly more positive than negative responses ($M = 2.61$, 95% CI [2.50; 2.72]), $\Delta M = 3.45$, SE = 0.07, $p < .001$.

Hypotheses testing

Means and confidence intervals per condition are displayed in Figure 1.2 We conducted mixed-model analyses with responses nested within participants to predict the perceived likelihood of a response by participants or by the acquaintance. We included a random intercept, and fixed factors for condition (1 = female, 2 = male; between-subject), response valence (−1 = negative, 0 = neutral, 1 = compliment; within-subject) and their cross-level interaction.

Likelihood of own response

The perceived likelihood of participants’ own responses was significantly affected by response valence: $F(2,1474) = 637.38$, $p < .001$, and not by condition, $F(1,134) = 2.48$, $p = .117$. Pairwise comparisons indicate that participants perceived themselves more likely to give neutral responses than compliments ($\Delta M = 1.37$, SE = 0.10, $p < .001$), and more likely to give compliments than negative responses to both men and women ($\Delta M = 2.12$, SE = 0.10, $p < .001$). In addition to this main effect, the hypothesized response valence by condition interaction was found, $F(2,1474) = 7.48$, $p < .001$, Cohens’ $W' = 0.10$. Pairwise comparisons with Bonferroni correction for multiple comparisons show that participants

1A full list of responses can be found in Table S2.

2Exact statistics can be found in Table S3.

3Degrees of freedom are calculated by the number of total measurements (1608) minus the 134 DFs needed for modelling the random intercepts per participant.
perceived themselves to be more likely to compliment a male than a female target, $\Delta M_{(m-f)} = 0.58$, 95% CI [0.26; 0.89], $p < .001$, confirming Hypothesis 1a. No significant difference was found for neutral or negative responses.

Likelihood of acquaintance response

Similar patterns were obtained for perceived likelihood of the acquaintance’s response, which was again significantly affected by response valence, $F(2,1474) = 669.60$, $p < .001$, but not by condition, $F(1,134) = 0.84$, $p = .360$. Similar to participants’ own responses, pairwise comparisons indicate that participants expected the acquaintance to be more likely to give neutral responses than compliments ($\Delta M = 0.88$, SE = 0.09, $p < .001$), and more likely to give compliments than negative responses ($\Delta M = 2.25$, SE = 0.09, $p < .001$). In addition to this main effect, we found the hypothesized response valence by condition interaction, $F(2,1474) = 4.11$, $p = .017$, Cohens’ $W^2 = 0.08$. Estimated marginal means reveal the predicted pattern, but the pairwise comparisons with Bonferroni correction for multiple comparisons show that mean differences between the target genders per valence condition are not significant (compliments: $\Delta M_{(m-f)} = 0.21$, 95% CI $[-0.07; 0.49]$, $p = .139$, negative response:

![Figure 1](https://example.com/figure1.png)

**Figure 1** Study 1 Perceived response likelihood of participant (a) and acquaintance (b) by condition. Error bars represent 95% confidence intervals
\[ \Delta M_{(m-f)} = 0.26, \text{95\% CI } [-0.02; 0.54], p = .065, \text{neutral response: } \Delta M_{(m-f)} = -0.20, \text{95\% CI } [-0.48; 0.08], p = .157. \] Hypotheses 1a–c were thus not confirmed for expected responses by the acquaintance.

**Discussion**

Study 1 demonstrated that as expected, participants reported a higher likelihood that they would compliment men indicating to reduce work hours for childcare compared to women indicating the same (though this pattern was not significant for expected acquaintance responses). We did not find evidence for our predictions that men would receive more negative responses and less neutral responses than women when reducing work hours for childcare. Following up on the finding that men may be more likely than women to receive compliments for reducing work hours, our next study tested the potential normative inferences of such a compliment to men.

**STUDY 2**

In Study 2, we investigated how compliments (vs. neutral and negative responses) to men reducing work hours for childcare affect perceptions of prescriptive and descriptive norms (H2–H4).

**Methods**

**Sample**

A sample of 338 participants on Prolific Academic fluent in Dutch and living in the Netherlands completed the online experiment. After excluding 25 participants who did not pass the attention checks, the final sample consists of 313 participants with an average age of 27.6 years (SD = 9.18, 93 female, 93 male, sample characteristics in Table 1). A priori power analyses in G²power revealed we needed 337 participants to detect a small to medium effect \( f = .17 \) at 80\% power.

**Design**

Participants were randomly distributed across three valence conditions. They read a conversation between two men in which Mark tells Tom that he will become a father and plans to reduce work hours to take care of his child. Depending on the condition, Tom compliments this (‘Wow, great that you are doing this!’), responds neutrally (‘What kind of work do you do?’) or responds negatively (‘Why would you do that?’). Data from Study 1 demonstrated that these responses were respectively positive, neutral and negative.

Participants then completed measures assessing their norm perceptions on a scale from 1 = completely disagree, to 7 = completely agree. We assessed perceived prescriptive and descriptive norms for men to work part-time in order to take care of their child (three item scales), both as held by Tom (proximal norm) and in the Netherlands more generally (societal norm). For proximal prescriptive norms, participants indicated their agreement with ‘Tom thinks it is desirable/appropriate for Mark to/Mark ought to work less to take care of his baby’ (\( \alpha = .90 \)). For proximal descriptive norms, participants indicated their agreement with ‘Tom thinks it is normal/conventional/standard for Mark to work less to take care of his baby’ (\( \alpha = .92 \)). The same items were adapted to measure societal prescriptive and descriptive norms (e.g., ‘In the Netherlands it is conventional for men to work part-time to take care of the children.’) (\( \alpha_{\text{prescriptive}} = .78 \), \( \alpha_{\text{descriptive}} = .82 \)).
Results

All condition means and confidence intervals are shown in Figure 2. Hypotheses were tested using ANOVA models with condition as a predictor and norm perceptions as the dependent variable.

Prescriptive norms

We found a significant condition effect for proximal prescriptive norms, $F(2,310) = 153.74, p < .001, \eta^2 = .50$. Pairwise comparisons per condition revealed that, unsurprisingly, participants in the negative condition rated the behaviour as less prescriptively normative than those in the neutral condition ($\Delta M = -1.88 [-2.17; -1.58], p < .001$) or compliment condition ($\Delta M = -2.50 [-2.79; -2.20], p < .001$). Furthermore, supporting H2, participants in the compliment condition rated the behaviour as more prescriptively normative than those in the neutral condition, $\Delta M = 0.62 [0.32; 0.92], p < .001$, Cohen's $d = .56$. Thus, participants inferred from the compliment (vs. neutral response) that Tom sees it as desirable that Mark reduces work hours to care for his child. No between-condition differences were found on societal prescriptive norms, $F(2,310) = 1.02, p = .361, \eta^2 = .01$.

Descriptive norms

Significant condition effects were also present for proximal descriptive norms, $F(2,310) = 135.77, p < .001, \eta^2 = .47$. Participants in the negative condition rated the behaviour as less descriptively normative than participants in the neutral condition ($\Delta M = -2.50 [-2.82; -2.18], p < .001$) or compliment condition ($\Delta M = -2.08 [-2.39; -1.76], p < .001$). Moreover, supporting H3, proximal descriptive norms were lower in the compliment condition than in the neutral response condition, $\Delta M = -0.42 [0.10; 0.75], p = .100$, Cohen's $d = .32$. Thus, participants inferred from the compliment (vs. neutral response) that Tom thinks Mark’s decision to reduce work hours to care for his child is unconventional. No between-condition differences were found on societal descriptive norms, $F(2,310) = 0.46, p = .631, \eta^2 = .00$.

*Exact statistics can be found in Table S4.*
Indirect effects

Mediation analyses using the process macro for indirect effects (Hayes, 2013, Model 4) assessed whether changes in proximal prescriptive and descriptive norms, instigated by compliments (vs. neutral responses), had downstream consequences for societal norms (H4). Results are summarized in Figure 3. Bootstrapped 95% confidence intervals around the indirect effects showed that compliments (vs. neutral responses) reduced proximal descriptive norms, which predicted reduced societal descriptive norms. Furthermore, compliments (vs. neutral responses) increased proximal prescriptive norms, which predicted increased societal prescriptive norms. Proximal descriptive norms did not mediate the relation with societal prescriptive norms, nor did proximal prescriptive norms mediate the relation with societal descriptive norms.

Discussion

Study 2 shows that while negative responses consistently undermine prescriptive and descriptive norms, compliments (vs. neutral responses) imply a behaviour is in accordance with prescriptive norms, but not with descriptive norms, confirming Hypotheses 2 and 3. This effect was only found for inferences about proximal norms; we found no evidence for direct effects on societal norms. However, confirming Hypothesis 4, our manipulation indirectly affected societal norms, through changes in proximal norms.

A potential shortcoming of Study 2 was that we measured proximal norms as inferences of normative beliefs held by a single compliment-giver. We cannot be sure that this person was perceived as a representative, or, put differently, as someone who defines the norms in that context. In Study 3, we therefore included more compliment-givers (vs. neutral responders), and broadened our measure of proximal norms, to ensure that the response was normative in that particular social environment. We no longer examined negative responses in Study 3.

STUDY 3

Study 3 aims to replicate the effects of compliments (vs. neutral responses) on normative inferences (H2–4). Additionally, it studies the influence of compliments on perceptions of the target's manhood (in terms of warmth and competence as well as gender belonging; H5a-b). We also explored the compliment's effect on perceived target doubt about his decision, and the indirect effect of compliments on target outcomes through proximal norms.
Methods

Sample

Participants from Prolific Academic living in the Netherlands and fluent in Dutch were divided over two online experimental conditions. Based on a priori power analysis in G*power with an effect size of $d = .32$ for the difference in proximal descriptive norms between the neutral and compliments condition (from Study 2), we needed 240 participants to obtain 80% power. We collected data until we reached 240 participants (120 female and 120 male), excluding and hence replacing 45 participants who did not pass the attention checks. Participants’ mean age was 27.70 ($SD = 8.29$).

Design

Participants read a vignette of a man who engages in two short conversations, one with an old friend and one with a colleague. In each of these conversations, he indicates he will become a father and will reduce his working hours to 60% to take up childcare responsibilities. Both conversation partners then respond either positively (‘Wow, great that you are doing this!’ and ‘Wonderful that you make this decision as a father!’; compliment condition) or neutrally (‘What kind of work do you do?’ and ‘Do you already know on which days you will work?’; neutral condition). Participants then complete measures (all 7-point scales) of proximal norms ($\alpha$prescriptive = .70 and $\alpha$descriptive = .86) and societal norms ($\alpha$prescriptive = .72 and $\alpha$descriptive = .83). The measures were similar to Study 2, but the proximal norms items were slightly reworded to refer to ‘the people in Mark’s environment’, rather than to a single compliment-giver.

Moreover, participants were asked to put themselves in Mark’s situation to complete measures of perceived target manhood: (a) They were asked to rate to what extent Mark would feel like the people in his environment ascribe competence (4 items, $\alpha = .60$) and warmth (4 items, $\alpha = .67$) to him on a scale from 1 = Not at all to 7 = Completely (items selected from Hentschel et al., 2019). (b) Perceived gender belonging of the target was measured using three items from Leach et al. (2008) using a scale from 1 = completely disagree to 7 = completely agree (e.g., ‘After these conversations, Mark feels like he has a lot in common with the average man’, $\alpha = .83$). Lastly, participants rated perceived doubt of target’s decision to work part-time on a scale from 1 = Not at all to 7 = Completely (e.g., ‘After these conversations, Mark doubts his decision to work part-time’, three items, $\alpha = .81$).

Results

All condition means, confidence intervals and test results are reported in Table 2.

Norm perceptions

ANOVAs with condition (0 = neutral, 1 = compliment) as a predictor were conducted. No support was found for H2: there was no significant between-condition difference in proximal or societal prescriptive norms. Supporting H3, a large effect showed that compliments to a man deciding to work part-time imply that his environment perceives this behaviour less normative among men (proximal descriptive norm) than neutral responses, $F(1,238) = 98.38, p < .001, \eta^2 = .29$. This effect was echoed on societal descriptive norms: a small effect showed that participants also felt that society at large perceived the decision to work part-time less in normative in the compliment (vs. neutral) condition, $F(1,238) = 3.87, p = .050, \eta^2 = .02$. 
A COMPLIMENT’S COST

Target manhood

No significant between-condition differences were found for perceptions of target manhood in terms of competence or warmth (as predicted by H5a). A large effect supporting H5b was found: participants expected that the target would experience lower gender belonging after receiving compliments than after neutral responses, $F(1,238) = 60.38$, $p < .001$, $\eta^2 = .19$.

Doubt

Explorations of the condition effect on target’s doubt about his decision to work part-time revealed no significant between-condition differences.

Indirect effects

We again used mediation analyses to assess whether changes in proximal prescriptive and descriptive norms, instigated by compliments (vs. neutral responses), had downstream consequences on the individual (warmth, competence, gender belonging, and doubt) or societal norms (H4). Results are summarized in Figure 4. Bootstrapped 95% confidence intervals around the indirect effects showed that compliments (vs. neutral responses) reduced proximal descriptive norms, which predicted reduced societal descriptive norms, reduced gender belonging, and increased decision doubt. Societal prescriptive norms, and perceptions of warmth and competence were not affected. Proximal prescriptive norms did not mediate the effects on any of the variables.

Discussion

Study 3 replicated the finding of Study 2 that compliments (vs. neutral responses) signal that a behaviour is not normative (proximal and societal descriptive norms). Additionally, this study is the first to evidence perceived consequences for the compliment target, with compliments decreasing target gender belonging and, indirectly through proximal descriptive norms, increasing decision doubt.
So far, we studied effects of compliments given to men reducing work hours to care for their child. Study 4 investigates whether these effects extend to another group: women with young children deciding to apply for a job higher up with more responsibilities. Just like men reducing work hours for childcare is a non-traditional behaviour, it is also non-traditional for women (especially mothers) to strongly pursue a career (Haines & Stroessner, 2019; Morgenroth & Heilman, 2017). Thus, this study aims to test whether the normative inferences of compliments we found in Studies 2 and 3 replicate to a different pioneering behaviour.

**Methods**

**Sample**

A Prolific Academic sample of participants living in the UK and fluent in English was randomly divided across two online experimental conditions. Based on an a priori power analysis in G*power with an effect size of $d = .44$ (based on Studies 2–3), we required 226 participants to test the effect of condition with 95% power. After removing 23 participants who did not pass the attention checks, the final sample included 241 (124 female and 116 male) participants ($M_{age} = 36.28, SD = 13.65$).

**Design**

Participants read a vignette of a woman with young children who engage in two short conversations, one with an old friend and one with a colleague. In each of these conversations, she indicates she has applied for a job higher up in the company. Both conversation partners then respond either positively (‘Amazing that you choose for your career!’), and ‘Wow, so great that you decide to move up in this life
A COMPLIMENT’S COST

Participants then complete the same measures as in Study 3: proximal prescriptive (α = .76) and descriptive (α = .85) norms and societal prescriptive (α = .71) and descriptive norms (α = .89) about women deciding to move up in their career; perceived womanhood of the target with competence (α = .84), warmth (α = .84), and gender group belonging (α = .80); and doubt about her decision (α = .85).

Maternal guilt with a single item (Aarntzen et al., 2019; ‘To what extent do you think, after these conversations, [target] feels guilty about spending less time with her family because of her choice to move up?’ 7-point scale from 1 = Not at all, to 7 = Completely).

Results

All condition means, confidence intervals and test results are reported in Table 3.

Norm perceptions

ANOVA with condition (0 = neutral, 1 = compliment) as a predictor were conducted for each of the dependent variables. No support was found for H2: there was no significant effect on proximal or societal prescriptive norms.

A large effect supported H3, showing that participants who read complimenting (vs. neutral) responses to a woman deciding to pursue a job higher up, inferred that her environment considered this behaviour less normative among women (proximal descriptive norm), $F(1,239) = 18.33, p < .001$, $\eta^2_p = .07$. No effect was found on societal descriptive norms.

Womanhood

We found no support for H5a and H5b: Condition did not affect womanhood of the target in terms of competence or warmth, nor did it affect perceived gender belonging of the target.
Doubts and maternal guilt

Explorations of the effect on doubt and maternal guilt about the decision to pursue a position higher up revealed no significant between-condition differences.

Indirect effects

We modelled the indirect effects of condition to assess the downstream consequences of changes in proximal norms (prescriptive and descriptive) for individuals (in terms of perceived womanhood, decision doubt and maternal guilt) and societal norms (H4). Estimations of all indirect effects are displayed in Figure 5. Confidence intervals around the indirect effects showed that compliments (vs. neutral responses) reduced proximal descriptive norms for women deciding to move up, which predicted reduced societal descriptive norms and gender belonging, and increased decision doubt and maternal guilt. Societal prescriptive norms, and perceptions of warmth and competence were not affected. Proximal prescriptive norms did not mediate the effects on any of the variables.

Discussion

Replicating Studies 2 and 3 with a different pioneering behaviour, Study 4 demonstrates that compliments have normative consequences as they signal a behaviour is perceived to be uncommon. This effect on proximal descriptive norms had perceived downstream consequences for the compliment target (decreasing perceived gender belonging and increasing perceived decision doubt and guilt) and for societal descriptive norms.
To examine the size of the effects on proximal norms across Studies 2, 3, and 4, we conducted two meta-analyses (see Figure 6a,b) specifying Random-Effects Models using the Metafor package in R. For proximal prescriptive norms, the estimated effect size was Cohen's $d = -0.17$, SE = 0.20, $Z = -0.85$, $p = .394$, 95% CI $[-0.56; 0.22]$. That is, the data across studies suggested the effect was not reliably different from 0. For proximal descriptive norms, the estimated effect size was medium to large and reliable across studies: Cohen's $d = 0.71$, SE = 0.29, $Z = 2.48$, $p = .013$, 95% CI $[0.15; 1.28]$. Thus, across our studies, compliments do not affect proximal prescriptive norms (H2), yet they do affect proximal descriptive norms (H3) signalling that the complimented behaviour is unconventional and descriptively non-normative.

**GENERAL DISCUSSION**

In times of societal change, like changes in gender roles, one may compliment men deciding to spend more time on childcare, or women pursuing a job higher up, to support their pioneering behaviour. In this paper, we looked into (the effects of) such compliments given to people showing pioneering gender behaviours. First, we found that pioneering gender behaviour is more likely to be complimented than normative behaviour: Study 1 showed that men deciding to reduce working hours for childcare are more likely to receive compliments for this decision than women. This finding is in line with earlier qualitative work showing that men more often than women reported getting praised for their parental involvement (Deutsch & Saxon, 1998). Our quantitative work shows
that this difference still holds almost 25 years later. The finding that men are more likely praised than women for the same parental choice also supports the shifting standards model (Biernat, 2012; Biernat & Manis, 1994), as it suggests that fathers are compared to a stereotypically lower parenting standard than mothers.

Studies 2–4 then zoomed in on the normative effects of such compliments. While previous studies on compliments mostly focused on prescriptive norm inferences, arguing that compliments underline socially and culturally appropriate behaviour (Manes, 1983; Rees-Miller, 2011; Wolfson, 1983), an internal meta-analysis revealed no effect of compliments on prescriptive norms in our studies. Adding to this work by investigating descriptive norm inferences; however, we found that complimenting men on their decision to reduce work hours, or complimenting women on their decision to step up in their career, increased the perception that this behaviour is unconventional and thus descriptively non-normative. A meta-analysis revealed a medium to large effect of compliments on inferences of descriptive norms in one's direct environment. These findings are in line with literature on grounding processes in conversations, arguing that a response that interrupts the flow of a conversation may signal that the decision responded to is not taken for granted or ‘normal’ (Koudenburg et al., 2020).

Studies 2–4 further showed that these descriptive norm inferences have downstream consequences at the societal level: changing perceptions about what is common in one's direct environment indirectly affects perceptions of how most men or women in society act. Proximal social norms inferred from daily interactions may thus be generalized to perceptions of broader societal norms. Perceived downstream consequences for the individual also appeared: by decreasing the perceived normativeness of the behaviour, a compliment indirectly decreased perceptions of the target's belonging to their gender group, while increasing perceived doubt about their decision, and, in the case of mothers, increasing perceived maternal guilt. These findings are in line with earlier work showing that when prescriptive and descriptive norms are conflicting, behavioural change is less likely to occur (Smith et al., 2012; Staunton et al., 2014) – and our work adds to this research by showing that such conflicting normative messages may be inferred from compliments.

Limitations and further research

Of course, our research is not without limitations. First, we measured participants' perceptions of target doubt, gender belonging and maternal guilt, but from these data, we cannot conclude that the people who actually make such decisions would experience a compliment the same way. Future research could investigate how compliments (vs. neutral reactions) are experienced by the people receiving them. Still, the current findings are important as compliments given to pioneers will often be heard by bystanders of the conversation, in a similar way as participants did in our studies. The normative inferences they make from hearing the compliment may then also influence their own considerations in making similar decisions and thus stagnate further change towards gender equality.

Second, we note that the described perceived downstream consequences of compliments should be interpreted with some caution, given the absence of convincing evidence for any direct effects on descriptive societal norms or consequences for the individual target. However, this pattern of results, with significant indirect effects in the absence of direct effects, may point to the existence of a suppression variable (a variable affected by the compliment, that poses an opposing—positive—force on societal norms and individual consequences) that conceals the total effect (e.g., Rucker et al., 2011). In the case of compliments, a first such variable would be prescriptive norms. While our studies (except for Study 2) did not find convincing evidence for this, previous theorizing in sociolinguistics (Manes, 1983; Wolfson, 1983) outlined the reinforcing power of compliments for prescriptive social norms. Other potential suppression variables could be positive emotions or the experience of validation that arise from receiving a compliment, or a sense of connection with the compliment-giver (e.g., Holmes, 2003). Follow-up research could look into this combination of positive and negative effects of a compliment further and study the weight of these different effects in the mixed message a compliment may send.
Future research could also replicate our findings in different age groups, as we used convenience samples largely consisting of young adults. Yet, we believe this is a highly relevant sample as these are people making the very family and career decisions we studied.

In our research, we demonstrated the potential normative cost of a compliment for two different behaviours: men reducing work hours to care for their child and women applying for a job higher up with more responsibilities. This replication suggests that the paradoxical effects of a compliment may generalize to a large range of pioneering behaviours. It would thus be interesting to test our reasoning for different behaviours where such effects of compliments could be relevant, such as complimenting people on health or pro-environmental behaviours.

Implications

Whether someone who transgresses gender norms is rejected for being a deviant, or considered a pioneer to a transformed society is mainly negotiated within interactions (Koudenburg et al., 2017, 2020). Our studies show that while a compliment-giver may hope to support gender equality when complimenting someone’s decision to breach gender norms, they may unintentionally undermine equality by communicating that we are far from reaching it. Since descriptive norms affect people’s decisions (Cialdini & Trost, 1998), complimenting a behaviour may indirectly discourage this very behaviour and stagnate change towards gender equality (note that complimenting gender-traditional behaviours may have similar unintended costs, see Kahalon et al., 2018). So how can one support change? Our findings suggest that pioneering behaviour is most likely to be considered normative if one accepts the statement implicitly (valence ratings in Study 1 indicate this is still seen as quite a positive response), and builds upon the newly developed common ground in further conversation. In other words, while a compliment suggests a behaviour is something that requires evaluation, and therefore not normal (yet); taking the behaviour for granted and building from there may inform one that this behaviour is, in fact, the new normal.

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CONFLICT OF INTEREST

All authors declare no conflict of interest.

AUTHOR CONTRIBUTION

Loes Meeussen: Conceptualization; Data curation; Formal analysis; Funding acquisition; Investigation; Methodology; Project administration; Resources; Software; Supervision; Validation; Visualization; Writing – original draft; Writing – review & editing. Namkje Koudenburg: Conceptualization; Data curation; Formal analysis; Funding acquisition; Investigation; Methodology; Project administration; Resources; Software; Supervision; Validation; Visualization; Writing – original draft; Writing – review & editing.

OPEN RESEARCH BADGES

This article has been awarded Open Materials, Open Data, Preregistered Research Designs Badges. All materials and data are publicly accessible via the Open Science Framework at https://osf.io/hmg2x/?view_only=c7589501f10e4663959528e91c27ae05, https://osf.io/wcksa/?view_only=b2213f8014e04240b47eb16c07d2bad, https://osf.io/5bcdq/?view_only=8de8c3f7c834474d8f9b5f65c5da2a6 and https://osf.io/6hd7t/?view_only=949e5f2327344648b83ea57eafcd6c6e.
DATA AVAILABILITY STATEMENT
Data and code will be made available upon publication at the OSF repository of this project.

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