Journal of Experimental Social Psychology 95 (2021) 104120

Contents lists available at ScienceDirect

Journal of Experimental Social Psychology

journal homepage: www.elsevier.com/locate/jesp

When and how refusing to help decreases one's influence

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ARTICLE INFO

Editor: Vanessa Bohns

Keywords:
Helping
Cost
Dominance
Prestige
Influence

ABSTRACT

When does saying no to a helping request hurt a person's influence? Across five studies, when someone was asked for help, saying no had two opposing effects on their actual and perceived influence by increasing their dominance, but decreasing their prestige. The cost of providing help moderated these effects. Overall, refusing to help decreased a person's influence when helping cost little time, effort, or money, compared to both agreeing to help and a control condition. This effect was eliminated or reversed with a higher cost of helping. Individuals who refused to provide low-cost help were perceived as less prestigious and influential than those who refused to provide high-cost help, but individuals who agreed to help were perceived similarly regardless of helping's cost. Our research highlights the importance of both prestige and dominance effects for a person's influence, and the cost of helping as a major contextual factor for helping's consequences.

Every day, many times a day, people are asked for help. For example, most help provided by coworkers and managers is initiated by someone seeking help (Burke, Weir, & Duncan, 1976; Kaplan & Cowen, 1981). Consider Rachel, a software engineer. In one typical workday, she is approached by coworkers struggling with coding problems, a supervisor seeking someone to chair a committee, and an administrative assistant asking for contributions to a colleague's farewell gift. Some of this help will require little time, effort, or money to provide, but some of it may involve significant cost to Rachel. When deciding how to respond to these helping requests, Rachel may consider how much other people need this help and what it will cost her to provide it, but she is also likely to consider how others will view her decision, and thus how it might affect her reputation. In particular, she is likely to be concerned about the social costs of saying no (Flynn & Lake, 2008). Such reputational concerns may lead her to say yes even when helping will interfere with her own work, or result in physical or emotional stress (e.g., Bergeron, Shipp, Rosen, & Furst, 2013; Bolino & Turnley, 2005; Flynn, 2003).

But are these concerns warranted? In the present research, we explore whether refusing to help someone hurts a critical part of a person's reputation: their influence on others. People care about being influential (Leary, 1995; Nezlek, Schütz, & Sellin, 2007). It not only helps them achieve their goals through swaying others' opinions or behaviors, but also signals high social standing in a group (Berger, Rosenholtz, & Zelditch Jr, 1980). We focus on how saying no (versus saying yes) to a helping request might affect an individual's perceived influence by, and their actual influence on, third-party observers. The impressions left on third-party observers can be uniquely consequential. Each day, an actor may directly interact with only a small number of people, but many others either observe those interactions or hear about them (Quadflieg & Penton-Voak, 2017). Observers form an impression of the actor based on what they saw or heard and may spread it to other people through gossip (Feinberg, Willer, Stellar, & Keltner, 2012); these impressions can significantly impact not only the actor's future interactions with those observers, but also the actor's reputation in the broader social network (Anderson & Shirako, 2008). In addition, observers likely have different motives and perspectives than help recipients. Past research has argued that helpers gain influence via social exchange: group members reward them because the group benefits from the help (e.g., Flynn, 2003; Willer, 2009). Since third-party observers do not gain or lose from the target's choice of whether to help, they may not be motivated to reward the target for providing help. Thus, relative to agreeing to help, refusing to help may not always lead to less influence on third-party observers.

In addition to gaining influence through others' respect, which has been the focus of much previous helping research (e.g., Flynn, 2003; Flynn, Reagans, Amanatullah, & Ames, 2006), individuals can also gain influence through demonstrating dominance (Cheng, Tracy, Foulsham, Kingstone, & Henrich, 2013). While refusing to help may make a person seem less respectable and thus less influential than agreeing to help, it may also make one appear more dominant and thus more influential. These two opposing effects on a person's influence suggest that under certain circumstances refusing to help may not hurt one's influence

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https://doi.org/10.1016/j.jesp.2021.104120
Received 29 September 2020; Received in revised form 23 February 2021; Accepted 23 February 2021

because the two opposing effects cancel each other out. Indeed, if dominance effects are strong enough, refusing to help may even increase one's influence. In this paper, we examine how refusing to help can decrease and increase one's influence simultaneously, and how the effect of refusing to help on influence varies with the cost of providing help.

1. Influence, dominance, and prestige

Consistent with prior research, we define influence as individuals' ability to modify others' behaviors, thoughts, and feelings (Berger, Cohen, & Zelditch, 1972; French Jr. & Raven, 1959). Both actual influence and perceived influence are important. Actual influence can help individuals achieve their goals through swaying others' opinions or behaviors, whereas perceived influence can be a self-fulfilling prophecy—individuals perceived as low versus high in influence are treated differently by others, and this differential treatment may translate into actual influence (Pelletier & Vallerand, 1996; Snyder & Swann, 1978).

The dominance-prestige account of social rank draws on evolutionary theory to propose that dominance and prestige, conceptualized as a set of cognitive and behavioral strategies, are two paths to gaining influence in a group (Cheng et al., 2013; Cheng & Tracy, 2013; Henrich & Gil-White, 2001; Maner, 2017; Maner & Case, 2016). The paths differ in the means used to gain influence. The dominance path has a long evolutionary history in both human and nonhuman species of individuals rising through group ranks by dominating others physically. In contemporary human societies, the dominance path involves inducing fear in other people through intimidation and force. Dominant individuals are forceful and controlling, and try to get their way regardless of what others want. Others defer to dominant individuals out of fear of physical or psychological harm, such as when employees go along with bosses so as not to be penalized, or victims comply with bullies' demands. The prestige path, in contrast, involves earning respect, and evolved more recently, likely to facilitate learning and cooperation within groups. Prestigious individuals are prosocial and competent. Others freely defer to prestigious individuals out of respect for their resources, abilities, and benevolent intentions, such as when employees follow the advice of a knowledgeable colleague, or individuals agree with the opinion of someone they consider trustworthy. Past research involving both real-world groups (e.g., Cheng, Tracy, & Henrich, 2010) and new groups created in the lab (e.g., Cheng et al., 2013) demonstrated that a person's dominance and prestige, as perceived by their groupmates, independently contribute to the person's influence in the group.

We propose that refusing (versus agreeing) to help others will have opposite effects on these two paths to influence. First, individuals who refuse to help will be seen as less prestigious, and thus less influential, than those who agree to help. As helping others usually requires incurring some cost, agreeing to help indicates that one is willing to sacrifice some self-interest for others' interests. It also indicates that one is capable of providing help. Thus, compared to refusing to help, agreeing to help shows that one is more prosocial and competent, which are both positively related to perceived prestige (Anderson, Brion, Moore, & Kennedy, 2012; Anderson & Kilduff, 2009; Cheng et al., 2010). Indeed, group members who were more helpful to the group during a task were rated as more respected by other members (Flynn et al., 2006). We extend these findings by proposing that those who agree to help are also viewed as more prestigious by observers who do not directly benefit from the help but merely hear about or witness it. Second, individuals who refuse to help will be seen as more dominant, and thus more influential, than those who agree to help. Saying no to a helping request means going against the help-seeker's wishes. In other words, in saying no, a person does what they want regardless of what others want. Such forceful behavior is a classic demonstration of dominance (Ames & Flynn, 2007; Cheng et al., 2013; Henrich & Gil-White, 2001), and people find those who are forceful intimidating. In addition, if observers perceive those who say yes to a helping request as being forced to go along with others' wishes, they will perceive those who agree to help as more submissive, more compliant, and less dominant than those who say no (Cheng et al., 2010).

Therefore, while refusing to help will decrease a person's influence through decreasing their prestige, it will also increase their influence through increasing their dominance. Whether refusing to help someone decreases a person's influence will depend on the relative size of these two indirect effects. In our research, we focus on a factor that should alter the relationship between helping and prestige: the cost of providing help.

2. Cost of helping as a moderator

When deciding whether to help someone, a person must make tradeoffs between their own and others' interests, because helping others requires incurring costs, including time, effort, and money (DePaulo & Fisher, 1980; Flynn, 2003). Refusing to help generally suggests that one values one's own interests more than others'. Refusing to provide low-cost help demonstrates unwillingness to make even a small sacrifice for others' interests and thus should be perceived as more selfish than refusing to provide high-cost help. Similarly, agreeing to help generally suggests that one values others' interests more than one's own. Agreeing to provide high-cost help should be perceived as involving more of a sacrifice and thus as more selfless than agreeing to provide low-cost help.

However, previous research suggests that observers spontaneously think of different magnitudes of selfish acts, but are less likely to do so for selfless acts (Klein & Epley, 2014). For example, imagine Jason can divide $6 between himself and Keith. If Jason keeps $4 and gives Keith $2, observers tend to spontaneously think about how Jason could have been even more selfish and kept all the money. If Jason keeps $2 and gives Keith $4, observers tend not to think about how Jason could have been even more selfless and given Keith all the money. Therefore, observers view increasingly selfish acts more negatively, but view different magnitudes of selfless acts similarly (Klein & Epley, 2014; Klein, Grossman, Uskul, Kraus, & Epley, 2015). In other words, it pays to be nice but does not pay more to be nicer.

Because refusing to help is a more selfish act, and agreeing to help a more selfless act, we predict that when evaluating those who refuse to help, observers will spontaneously think of other costs of helping and thus be sensitive to cost. However, when evaluating those who agree to help, observers will not spontaneously think of other costs of helping and thus be insensitive to cost.

We then hypothesize that individuals who refuse to provide low-cost help will be perceived as more selfish and thus less prestigious than those who refuse to provide high-cost help. Meanwhile, individuals who agree to provide low-cost help and those who agree to provide high-cost help will have similar levels of prestige because observers are insensitive to cost when evaluating those who agree to help. Thus, the cost of helping will moderate the effect of refusing to help on perceived prestige such that the size of the negative effect of refusing to help on perceived prestige will decrease as the cost of helping increases.

Hypothesis 1. (a) Individuals who refuse to help will be perceived as less prestigious than those who agree to help, but the size of the negative effect of refusing to help on perceived prestige will decrease as the cost of helping increases. (b) Cost of helping will have a larger effect on the perceived prestige of those who refuse to help than the perceived prestige of those who agree to help.

For dominance, because observers are insensitive to the cost when evaluating those who agree to help, we hypothesize that individuals who agree to provide low-cost versus high-cost help will have similar levels of dominance. But the cost of helping may also have little effect on the perceived dominance of individuals who refuse to help. The perceived dominance of those who refuse to help should depend on the strength of

the helper-seekers' wishes they go against: the stronger the wishes are, the more forceful those who refuse to help will seem to be. The strength of a help-seeker's wish for help may depend more on how much they would benefit from the help, and less on how much it would cost others to provide the help. For example, a person's desire to be introduced to an important client will depend largely on how important it is for them to get the introduction, rather than how difficult it would be for someone to introduce them. Thus, while we expect that refusing to help will make the target person appear more dominant than agreeing to help, the cost of helping may have little effect on the perceived dominance of the target person.

Hypothesis 2. Individuals who refuse to help will be perceived as more dominant than those who agree to help.

In summary, we predict that both prestige and dominance will mediate the effect of refusing to help on influence: refusing to help will decrease influence through prestige but increase influence through dominance. Because the size of the negative effect of refusing to help on perceived prestige decreases as the cost of helping increases, the size of the negative indirect effect through prestige should also decrease.

Hypothesis 3. (a) Perceived dominance and perceived prestige will mediate the effect of refusing to help on influence. (b) The mediation through prestige will be moderated by the cost of providing help such that the size of the indirect effect will decrease as the cost of helping increases.

Finally, because the size of the negative indirect effect through prestige decreases when the cost of helping increases, the overall effect of refusing to help on influence is less likely to be negative and more likely to be positive as the cost of helping increases (Fig. 1).

Hypothesis 4. The cost of helping will moderate the effect of refusing to help on a person's influence: as the cost of helping increases, refusing to help becomes less likely to decrease a person's influence, and more likely to increase a person's influence, relative to refusing to help.

3. Overview of studies

In five studies, we explored how refusing versus agreeing to help affect a person's influence, the moderating role of the cost involved in helping, and the mediating roles of dominance and prestige. In our basic paradigm, participants learned about a dyadic interaction in which one person asked for help from a target person, and the target either agreed or refused to help. Participants learned about this interaction by either reading a summary of it (Studies 2, 4, & 5), or witnessing the interaction via reading messages (Study 1) or email exchanges (Study 3). We examined the target person's actual influence on participants' decisions (Studies 1–2), as well as their perceived influence (Studies 3–5). Study 5 included a control condition in which participants did not know the target's response, to determine whether our effects were truly driven by the targets who refused to help. Across studies, we varied whether other people could provide help, what type of cost was involved, and who was asked for help, to test the robustness of our effects.

For all studies, we report all manipulations and exclusions, as well as all measures of our main dependent variables. Results for all additional measures are reported in the supplemental materials. No data were analyzed prior to completion of data collection.

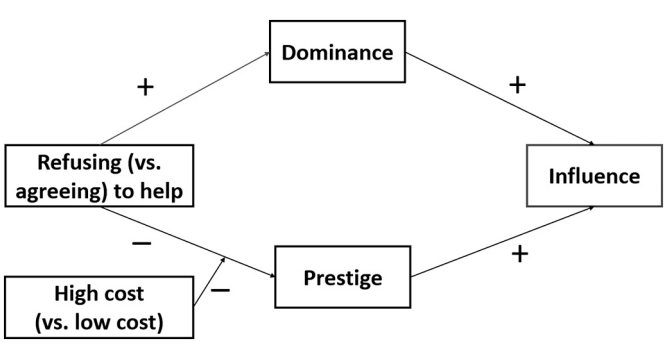

Fig. 1. Summarizes our theoretical model.
Note. Refusing to help (vs. agreeing to help) increases a person's dominance and decreases a person's prestige. The size of the negative effect of refusing to help on perceived prestige is reduced when the cost is high (versus low). Both dominance and prestige increase influence.

4. Study 1

Study 1 examined the effects of refusing versus agreeing to provide low- versus high-cost help on actual influence (Hypothesis 4). We did not include measures of dominance and prestige in this initial study to ensure any effects we found were not driven by participants being explicitly asked to form an impression of the target person.

Participants believed they were part of a group who would play a game together. Participants read a chat supposedly between two other participants in their group (actually scripted). In this chat, one person (the help-seeker) asked another (the target person) to stay after class to share their lecture notes, and the target person said either yes or no. The cost of the requested help was manipulated via inconvenience: the target either was free after class (low-cost) or had another class immediately afterwards (high-cost). Next, participants worked with the target person on a checkerboard task, as a measure of the target's influence (Willer, 2009). Participants expected to meet with the target in person after the task to review the answers. During the task, the target told participants their preferred answers. When the teammate gave a different answer than the participant, the participant could change their answer. The teammate was considered more influential the more often the participant changed their answer to match the teammate's.

4.1. Method

4.1.1. Participants

The study was run in a research lab at a public university for a week, with the goal of having 256 participants, a sample large enough to detect an effect size of $\eta_p^2 = 0.03$ (the effect size of the Cost × Target Behavior interaction on perceived influence in a pilot study) at $\alpha = 0.05$ (two-tailed) with 80% power. By the end of the week, 314 undergraduate students completed the study for course credit. Of these, 91 did not pass the attention checks and therefore were excluded from data analyses, leaving 223 participants[1] ($M_{age} = 21.42$ years, $SD_{age} = 2.31$; 83 women, 123 men, 17 did not report gender; 51% Asian, 23% White, 11% Hispanic, 5% other, 1% Black, 8% multiracial). A sensitivity analysis (α =

[1] In Study 1, the attention check failure rate was 28.9%. This failure rate is high but understandable given the setup of this study. After participants received information about the target person, they completed a task that lasted about 20 min to measure actual influence before answering attention check questions to test whether they remembered the information. The long delay between receiving information about the target and being tested on it, rather than inattention during the study, might explain why so many participants failed to answer the attention check questions correctly. Furthermore, the results hold if we include all participants in the analyses. Participants might have formed an initial impression of the target person and been affected by this impression while doing the main task, even though some of them could not recall specific details of the experimental conditions at the end of the study. Studies 2–4 had lower attention check failure rates (18.7%, 6%, and 12%, respectively), likely due to shorter delays. However, the attention check failure rate in Study 5 was 25.2%. We believe this high failure rate was mainly caused by the distractions of the Covid-19 pandemic occurring during this study. However, the results of Study 5 hold if we include all participants in the analyses. See the supplemental material for the results on dominance, prestige, and influence when all participants are included for all studies.

0.05; ANOVA: Fixed effects, special, main effects and interactions) using G*Power indicated that the sample size of 223 gave us 80% power to detect an effect size of $\eta^2 = 0.03$.

4.1.2. Design and procedure

The study was a 2 (Cost of Helping: low vs. high) × 2 (Target Behavior: refusing vs. agreeing to help) between-subjects design. First participants were told they would play an online game in a group with three other participants and would begin by chatting online with the group members to get to know each other. Purportedly to save time, they would first chat in pairs, and then each pair would read the other pair's chat transcript. In reality, each participant was randomly assigned to chat with one other participant, and then read a scripted chat. Participants were given color names (e.g., Red, Blue) to use instead of their real names. In the scripted chat, the two people discovered they were both taking the same class. One person (i.e., Blue, the help-seeker) stated they could not make it to the next class and asked the other person (i.e., Red, the target person) if they had time after that class. Red indicated they either were free (low-cost condition) or had another class immediately afterwards (high-cost condition). Next, Blue asked Red if Red could stay 5 min after the next class to share their notes. The chat ended with Red saying yes or no to this request.[2]

Next, participants were told that their four-person group would be divided into 2 two-person teams to compete against each other in a checkerboard game, and team members would meet in person to review their answers and the correct answers after the game. The team score would be the sum of the two individual scores in each team, and the team with the higher score would win.

Participants were always assigned to the same team as Red (i.e., the person who had been asked for help). The game consisted of 20 trials. In each trial, a pair of checkerboards was presented for 2 s, and then participants indicated which checkerboard contained more white squares. Participants thought their teammate saw the same checkerboard pairs at the same time. The checkerboards in each pair were designed so it was difficult to determine the correct answer. Next, the teammate appeared to send the participant a message indicating the answer they preferred (e.g., "let's choose the left one," "I think it's the right one"). The teammate's answer differed from the participant's answer in 16 out of 20 trials. In those 16 trials, participants were then given the opportunity to change their answer.

After the checkerboard game, participants answered attention check questions to test whether they correctly remembered the names of their teammate, the help-seeker, and target person; whether the target person had time after class; and whether the target person agreed to help. We report the exact wording of attention check questions for this and subsequent studies in the supplemental materials. Those who answered these questions incorrectly did not pass the attention checks and were excluded from analyses. Finally, participants were debriefed.

4.2. Results

Table 1 lists the means and standard deviations of the influence measure for this and subsequent studies. Influence was measured by how many times participants changed their answer to match their teammate's answer. We analyzed this influence measure with a two-way ANOVA, with target behavior and cost of helping as between-subjects factors. The main effects of target behavior, $F(1, 219) = 0.85$, $p = .36$, $\eta_p^2 = 0.004$, and cost, $F(1, 219) = 0.15$, $p = .70$, $\eta_p^2 < 0.001$, were not significant. There was a Cost × Target Behavior interaction (see Fig. 2), $F(1, 219) = 4.90$, $p = .028$, $\eta_p^2 = 0.02$. In line with Hypothesis 4, refusing (vs. agreeing) to help another person decreased the teammate's influence on participants' decisions when the teammate had been asked to provide low-cost help, $t(91) = -2.30$, $p = .02$, $d = 0.49$, but refusing to help and agreeing to help led to similar levels of influence when the cost of helping was high, $t(128) = 0.69$, $p = .49$, $d = 0.12$. The teammate was less influential when they had said no to a low-cost (versus high-cost) request, $t(101) = -2.00$, $p = .04$, $d = 0.42$, but the cost of helping had no effect on the influence of the teammate who had agreed to help, $t(118) = 1.13$, $p = .26$, $d = 0.21$.

Table 1
Means and standard deviations of prestige, dominance, and influence in studies 1–4.

	Prestige		Dominance		Influence	
	Refuse	Agree	Refuse	Agree	Refuse	Agree
Study 1						
Low cost	–	–	–	–	7.23 (4.32)	9.40 (4.42)
High cost	–	–	–	–	8.99 (4.17)	8.45 (4.70)
Study 2						
Low cost	4.30 (1.16)	4.94 (1.25)	4.26 (1.23)	3.92 (1.11)	6.60 (2.63)	7.60 (2.31)
High cost	4.97 (1.39)	4.76 (1.23)	4.53 (1.14)	3.98 (0.76)	7.42 (2.13)	7.22 (1.68)
Study 3						
Low cost	3.76 (1.18)	4.86 (0.91)	3.67 (1.20)	2.92 (1.16)	3.38 (1.01)	4.27 (0.83)
High cost	4.14 (1.20)	4.85 (1.24)	3.87 (1.47)	3.01 (1.44)	4.18 (1.17)	4.17 (1.24)
Study 4						
Low cost	3.18 (1.12)	5.06 (0.97)	3.87 (1.13)	2.41 (1.27)	3.90 (1.29)	4.31 (0.88)
High cost	4.12 (1.08)	5.28 (1.00)	3.51 (1.28)	2.16 (1.07)	4.46 (1.05)	4.30 (1.01)
Very high cost	4.43 (0.99)	5.11 (1.34)	3.16 (1.23)	2.30 (1.13)	4.54 (0.93)	4.06 (1.12)

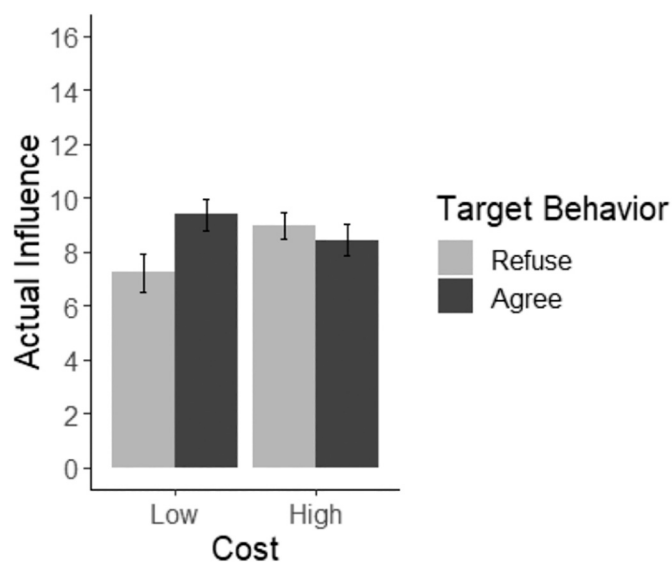

Fig. 2. Actual influence in Study 1.
Note. Actual influence was measured as the number of times participants changed their answer in a checkerboard task to match that of the teammate. Error bars are ±1 standard error.

4.3. Discussion

Using a measure of behavioral influence, Study 1 provided evidence for Hypothesis 4. Participants were less likely to change their responses

[2] See supplemental materials for the full text of manipulations in this and all subsequent studies.

to match those of their teammate when they had read about that teammate refusing (vs. agreeing) to help someone else—but only if that help was relatively easy to provide. When the help would have been inconvenient to provide, that negative effect of refusing to help on the teammate's influence was eliminated. In addition, the teammate was less influential when the help they refused to provide was lower in cost, but the teammate did not gain additional influence when they agreed to provide higher-cost help.

One limitation of this study is that the help-seeker asked for help after the target person indicated whether they had time after class. The help-seeker may have seemed odd and pushy asking for help right after finding out the target person did not really have time to help, so participants' evaluations of the target may have been driven partially by dislike of the help-seeker. To address this limitation, in subsequent studies we made the cost of helping an inherent part of the helping request.

5. Study 2

In Study 2, we aimed to replicate the findings in Study 1 using a different helping request manipulation and examine the mechanisms of dominance and prestige. Participants played, with a teammate, a trivia game with a similar structure to the checkboard task in Study 1. Again, the teammate's influence was measured by how often the participant changed their answer to match the teammate's. We expected that the teammate's influence would be affected by 1) how much participants perceived the teammate to be prestigious (and thus deferred willingly), and 2) how much they perceived the teammate to be dominant (and thus deferred out of concern they would otherwise be treated badly by the teammate when they met in person).

5.1. Method

5.1.1. Participants

Because Study 2 was conducted after Studies 1 and 3, we used $\eta_p^2 = 0.02$ (the effect size of the Cost × Target Behavior interaction on influence from Studies 1 and 3 and two pilot studies) and $\alpha = 0.05$ (two tailed) in a power analysis, finding we needed 387 participants to achieve 80% power. We ran the study in the research lab at a large public university for a week, and 412 undergraduate students participated for course credit. Of these, 77 did not pass the attention checks and therefore were excluded from analyses, leaving 335 participants (M_{age} = 20.93 years, SD_{age} = 4.77; 197 women, 138 men; 59% Asian, 20% White, 8% Hispanic, 2% other, 1% Black, 9% multiracial). A sensitivity analysis ($\alpha = 0.05$; ANOVA: Fixed effects, special, main effects and interactions) using G*Power indicated that the sample size of 335 gave us 80% power to detect an effect size of $\eta^2 = 0.02$.

5.1.2. Design and procedure

The study was a 2 (Cost of Helping: low vs. high) × 2 (Target Behavior: refusing vs. agreeing to help) between-subjects design. Participants were told that they had been paired with another participant. They chatted for 1 min with another actual participant, whom they believed would be their teammate in a trivia game.

Next, participants were told that in the trivia game, they and their teammate would answer the same set of 15 binary-choice questions while communicating virtually. The team in the session with the highest score would be the winner. Before the game, the teammate was first asked if they would help another participant with her honors thesis by completing an additional 3-min study on students with different majors. The teammate had to respond to this request first supposedly because it determined which room the team would use to meet in person to go over the answers after the trivia game. Only the teammate was asked for help because more data were needed specifically from people with the teammate's major. In the low-cost condition, the teammate would do the additional study right after the trivia game study and leave the lab on time. In the high-cost condition, due to space limitations the teammate would have to wait for about 12 min after the trivia game study before they could do the additional task, and therefore would need to stay in the lab for an extra 15 min past the usual session time. (We made clear to participants that the teammate would do the additional study only after they finished all their tasks with the participant, so the participant would never have to wait for the teammate or otherwise be inconvenienced by the teammate's decision.) Participants learned that their teammate either said yes or no to the helping request.

After this, participants rated their teammate on 9-point scales (0 = *not at all*, 8 = *very much*). Based on previous research on trait correlates of peer-rated dominance and prestige (Cheng et al., 2010), we used three trait items to measure dominance ($\alpha = 0.63$: *submissive* (reverse-coded), *dominant, assertive*) and four trait items to measure prestige ($\alpha = 0.88$: *competent, knowledgeable, prosocial, trustworthy*).[3]

Then participants completed the trivia game, purportedly with their teammate. For each question (e.g., which animal sleeps more, goats or sheep?), participants first indicated their answer. The teammate appeared to send the participant a message indicating the answer they preferred (e.g., "let's choose sheep," "I think its sheep"). The teammate's answer differed from the participant's answer in 10 out of 15 trials. In those 10 trials, participants had the opportunity to change their answer. As a cost manipulation check, participants indicated on a 9-point scale (0 = *not at all*, 8 = *very much*) how costly it would be to help with the additional study. Finally, participants were debriefed.

5.2. Results

We analyzed participants' ratings and the influence measure with two-way ANOVAs, with target behavior and cost of helping as between subjects factors. Table 1 lists the means and standard deviations for the measures of influence, prestige, and dominance for this and subsequent studies.

5.2.1. Manipulation checks

The cost of helping was rated higher in the high-cost condition (M = 4.32, SD = 2.14) than the low-cost condition (M = 2.74, SD = 2.16), $F(1,331) = 45.29$, $p < .001$, $\eta_p^2 = 0.12$, confirming that our cost manipulation was successful. The cost of helping was also rated higher when the teammate refused to help (M = 3.77, SD = 2.27) than when the teammate agreed to help (M = 3.14, SD = 2.27), $F(1, 331) = 7.02$, $p = .008$, $\eta_p^2 = 0.02$. The interaction between the cost and target behavior manipulations was not significant, $F(1, 331) = 0.55$, $p = .46$, $\eta_p^2 = 0.002$.

5.2.2. Correlations

Dominance and prestige were positively correlated, $r(333) = 0.20$, $p < .001$. Because dominance and prestige were sometimes significantly correlated in this and subsequent studies, we always control for one construct when presenting the correlation between the other construct and influence, to show the latter construct's unique effect. Influence was positively correlated with dominance (after controlling for prestige, $r(332) = 0.12$, $p = .025$) and prestige (after controlling for dominance, $r(332) = 0.14$, $p = .009$).

5.2.3. Influence

Influence was measured by how many times participants changed their answer to match their teammate's answer. The main effect of target behavior was marginally significant, $F(1, 331) = 3.26$, $p = .07$, $\eta_p^2 = 0.01$, and the main effect of cost was non-significant, $F(1, 331) = 0.89$, $p = .34$, $\eta_p^2 = 0.003$. Replicating Study 1 and in line with Hypothesis 4, the Cost × Target Behavior interaction was significant (see Fig. 3), $F(1, 331) = 6.00$, $p = .015$, $\eta_p^2 = 0.02$. Refusing (vs. agreeing) to help another person

[3] See the supplemental material for the confirmatory factor analysis of the measurement items in Studies 2–5.

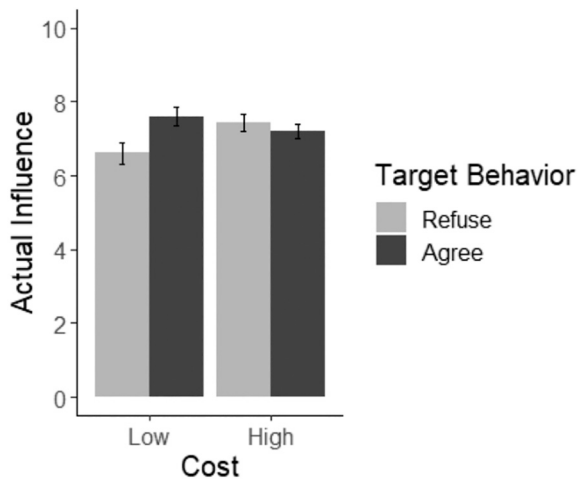

Fig. 3. Actual influence in Study 2.
Note. Actual influence was measured as the number of times participants changed their answer in a trivia game to match that of the teammate. Error bars are ±1 standard error.

decreased the teammate's influence on participants' decisions when the teammate had been asked to provide low-cost help, $t(179) = -2.70$, $p = .007$, $d = 0.40$, but refusing to help and agreeing to help led to similar levels of influence when the cost of helping was high, $t(152) = 0.32$, $p = .50$, $d = 0.11$. The teammate was less influential when they had said no to a low-cost (versus high-cost) request, $t(169) = -2.22$, $p = .028$, $d = 0.34$, but the cost of helping had no effect on the influence of the teammate who had agreed to help, $t(162) = 1.19$, $p = .24$, $d = 0.19$.

5.2.4. Perceived prestige

The main effect of target behavior was marginally significant, $F(1, 331) = 3.34$, $p = .068$, $\eta_p^2 = 0.01$, and the main effect of cost was marginally significant, $F(1, 331) = 3.31$, $p = .07$, $\eta_p^2 = 0.01$. There was a Cost × Target Behavior interaction (see Fig. 4), $F(1, 331) = 9.37$, $p = .002$, $\eta_p^2 = 0.03$. In line with Hypothesis 1a, when the cost of helping was low, refusing to help made the teammate appear less prestigious than agreeing to help, $t(179) = -3.56$, $p < .001$, $d = 0.53$, but when the cost was high, the effect of agreeing to help was reduced to non-significance: the teammate who refused to help was considered as prestigious as the teammate who agreed to help, $t(152) = 0.97$, $p = .34$, $d = 0.16$. In line with Hypothesis 1b, the teammate appeared less prestigious when they refused to provide low-cost (versus high cost) help, $t(169) = -3.40$, $p < .001$, $d = 0.52$, but cost of helping had no effect on the perceived prestige of the teammate who had agreed to help, $t(162) = 0.93$, $p = .35$, $d = 0.15$.

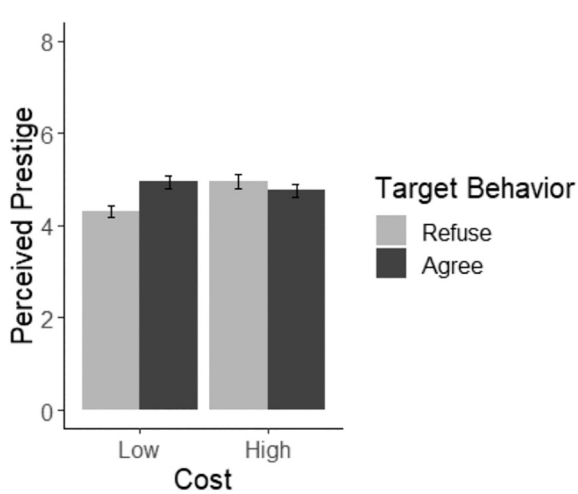

Fig. 4. Perceived prestige in Study 2.
Note. Error bars are ±1 standard error.

5.2.5. Perceived dominance

In line with Hypothesis 2, refusing to help ($M = 4.38$, $SD = 1.20$) made the teammate appear more dominant than agreeing to help ($M = 3.95$, $SD = 0.96$), $F(1, 331) = 13.25$, $p < .001$, $\eta_p^2 = 0.04$. Neither the main effect of cost, $F(1, 331) = 1.91$, $p = .17$, $\eta_p^2 = 0.006$, nor the Cost × Target Behavior interaction, $F(1, 331) = 0.74$, $p = .39$, $\eta_p^2 = 0.002$, was significant.

5.2.6. Mediation analyses

We predicted that dominance and prestige would mediate the effect of target behavior on influence, and the mediation by prestige would be moderated by cost (Hypothesis 3). To test the moderated mediation model in this and all subsequent studies with a similar design, we conducted bootstrapped moderated mediation analyses (with 5000 resamples) using SPSS packages developed by Hayes (2013; model 7). Target behavior (agreeing to help = 0, refusing to help = 1) was the independent variable, prestige and dominance the mediators, cost (low cost = 0, high cost = 1) the moderator, and influence the dependent variable.[4]

The mediation results supported Hypothesis 3. As shown in Table 2, the mediation by dominance was positive and not moderated by the cost of helping (moderated mediation index = 0.06, SE = 0.09, 95% CI [−0.06, 0.30]). The mediation by prestige was moderated by the cost of helping (moderated mediation index = 0.19, SE = 0.12, 95% CI [0.02, 0.49]). The indirect effect through prestige was negative when the cost of helping was low, but insignificant when the cost of helping was high. The mediation results indicate that refusing to help had a positive effect on influence through dominance regardless of the cost of helping, and the negative effect of refusing to help on influence through prestige was reduced as the cost of helping increased. As a result, refusing to help decreased a target's influence when the cost of helping was low, but had no effect on influence when the cost was high.

Table 2
Indirect effects of target behavior moderated by cost, studies 2–4.

	Dominance			Prestige		
	Indirect effect	SE	95% CI	Indirect effect	SE	95% CI
Study 2						
Low cost	0.10	0.06	[0.01, 0.25]	−0.14	0.08	[−0.36, −0.02]
High cost	0.16	0.08	[0.04, 0.37]	0.05	0.06	[−0.03, 0.21]
Study 3						
Low cost	0.26	0.07	[0.14, 0.41]	−0.61	0.10	[−0.81, −0.43]
High cost	0.30	0.08	[0.15, 0.46]	−0.39	0.10	[−0.61, −0.19]
Study 4						
Low cost	0.41	0.07	[0.27, 0.56]	−0.89	0.10	[−1.11, −0.69]
High cost	0.38	0.07	[0.25, 0.54]	−0.55	0.08	[−0.71, −0.39]
Very high cost	0.24	0.06	[0.14, 0.37]	−0.32	0.08	[−0.49, −0.16]

[4] Direct effects in the mediation analyses for Studies 2–5 were presented in the supplemental material.

5.3. Discussion

Using a new helping task and a new cost manipulation, we replicated the key finding in Study 1: refusing to help decreased a target person's influence on participants' decisions relative to agreeing to help only when the cost of helping was low. We further found that participants' perceptions of the target person's dominance and prestige mediated this effect.

In Study 2, while the target person lost influence and prestige when they refused to provide low- versus high-cost help, they did not gain additional influence by agreeing to provide high- versus low-cost help. We proposed that increasing the cost of helping does not increase the prestige of those who agree to help because observers fail to make spontaneous comparisons between different costs of helping. However, in Studies 1–2, an alternative explanation is that observers might have perceived individuals who agreed to provide more time- and effort-intensive help as less prestigious because they seemed to have lower opportunity costs (Bellezza, Paharia, & Keinan, 2016). In other words, reduced prestige from having more time to spare might have offset increased prestige from being willing to incur a higher cost. To address this possibility, we examined monetary costs in Study 3. Being able to spend more money to help others should, if anything, increase helpers' prestige, as having money is usually a sign of competence (Cheng & Tracy, 2013). If the alternative explanation is true, participants should perceive individuals who agree to spend more money to help others as more prestigious and influential. However, if our original hypotheses are true, participants should perceive individuals who agree to spend money to help others similarly regardless of the amount involved.

6. Study 3

In Studies 1–2, the benefits received by the help-seeker were the same regardless of the cost involved in helping. Observers may be more sensitive to an increased cost of helping if it is accompanied by increased benefits to the help recipients. To test this possibility, in Study 3 participants read an email exchange where one colleague asked another to make either a small or large donation to a charity fundraising campaign. Thus, when helping involved greater cost, it also involved greater benefits.

In Studies 1–2, we examined how refusing to help affected a person's actual influence on others' decisions in a group task. In Studies 3–5, we examined another type of influence: perceived influence in the target's relationships with others. Perceived influence can translate into actual influence because people pay more attention and defer more often to individuals whom they perceive as influential and high in social rank (Fiske, 2010; Magee & Galinsky, 2008; Pelletier & Vallerand, 1996; Snyder & Swann, 1978).

6.1. Method

6.1.1. Participants

A power analysis using $\eta_p^2 = 0.02$ (the average effect size of Cost × Target Behavior interaction in Study 1 and two pilot studies), $\alpha = 0.05$ (two-tailed), indicated that 387 participants were needed to achieve 80% power. A study seeking 400 US residents was posted on Amazon Mechanical Turk, and 410 participants completed it. Of these, 25 did not pass the attention checks and therefore were excluded from data analyses, leaving 385 participants ($M_{age} = 34.77$ years, $SD_{age} = 11.80$; 211 women, 174 men; 73% White, 7% Asian, 7% Black, 5% Hispanic, 2% other, 5% multiracial). A sensitivity analysis ($\alpha = 0.05$; ANOVA: Fixed effects, special, main effects and interactions) using G*Power indicated that the sample size of 385 gave us 80% power to detect an effect size of $\eta^2 = 0.02$.

6.1.2. Design and procedure

The study was a 2 (Cost of Helping: low vs. high) × 2 (Target Behavior: refusing vs. agreeing to help) between-subjects design. Participants imagined that they, David, and John were colleagues working in a company's marketing department. They read an email exchange between David and John. David asked John if he would be willing to buy either 1 box of cookies for $6 (low-cost condition), or 10 boxes for $60 (high-cost condition), for David's charity fundraising campaign. John replied either yes or no. For this and subsequent studies, to ensure participants remembered which person responded to the helping request, after reading the scenario participants had to indicate which person in the scenario asked for help. Participants had to read the scenario again if they answered incorrectly.

Participants rated their agreement with statements about what Brandon is like in his relationships with others on 7-point scales[5] (1 = *strongly disagree*, 7 = *strongly agree*). Items that specifically tapped fear and respect were adapted from the Dominance and Prestige Peer Rating Scales (Cheng et al., 2010) to measure dominance ($\alpha = 0.86$; "others are afraid of John," "others see John as intimidating") and prestige ($\alpha = 0.88$; "John is respected by others," "John is held in high esteem by others"), respectively. Perceived influence was measured with items about how much influence the target person had in their relationship with others. Three items from the Personal Sense of Power scale (Anderson, John, & Keltner, 2012) were adapted to measure influence ($\alpha = 0.84$; "John can get others to listen to what he says," "John can get others to do what he wants," "John has a great deal of power"). The seven items above were presented in random order.

As a cost manipulation check, participants indicated on 9-point scales (0 = *not at all*, 8 = *very much*) how costly and how much of a burden it would be to help David ($\alpha = 0.88$). As a check of whether increased costs for John were seen as bringing increased benefits to David, participants indicated on the same scale how beneficial it would be for David to receive the help and how much David would benefit from receiving the help from John ($\alpha = 0.74$).

6.2. Results

We analyzed participants' ratings and the influence measure with two-way ANOVAs, with target behavior and cost of helping as between subjects factors.

6.2.1. Manipulation check

The cost of helping was rated higher in the high-cost condition ($M = 4.63$, $SD = 1.88$) than the low-cost condition ($M = 1.67$, $SD = 1.54$), $F(1, 380) = 254.12$, $p < .001$, $\eta_p^2 = 0.40$, confirming our cost manipulation was successful. The cost of helping was also rated higher when John refused to help ($M = 3.41$, $SD = 2.35$) than when he agreed to help ($M = 2.82$, $SD = 2.15$), $F(1, 380) = 4.33$, $p = .038$, $\eta_p^2 = 0.01$. The interaction between the cost and target behavior manipulations was marginally significant, $F(1, 380) = 3.72$, $p = .054$, $\eta_p^2 = 0.01$. The effect of our cost manipulation on the perceived cost of helping was larger when John refused to help ($M_{high\ cost} = 4.80$, $SD_{high\ cost} = 1.86$; $M_{low\ cost} = 1.78$, $SD_{low\ cost} = 1.47$), $t(193) = -12.55$, $p < .001$, $d = 1.80$, than when he agreed to help ($M_{high\ cost} = 4.15$, $SD_{high\ cost} = 1.95$; $M_{low\ cost} = 1.74$, $SD_{low\ cost} = 1.32$), $t(188) = -10.05$, $p < .001$, $d = 1.46$. In the low-cost condition, the cost of helping was perceived to be similar when John refused to help and when he agreed to help, $t(196) = 0.18$, $p = .86$, $d = 0.03$. In the high-cost condition, the cost of helping was perceived to be higher when John refused to help than when he agreed to help, $t(185) = 2.33$, $p = .021$, $d = 0.34$.

[5] In Study 3, participants also rated the target's traits and their own feelings about working with the target. Because we were particularly concerned with participants' perceptions of the target's reputation in their broader social network, we report the results of trait perceptions and participants' own feelings in the supplemental material.

6.2.2. Benefits to help recipient

David was seen to benefit more from receiving help in the high-cost condition ($M = 6.01$, $SD = 1.75$) than the low-cost condition ($M = 5.64$, $SD = 1.79$), $F(1, 380) = 18.42$, $p < .001$, $\eta_p^2 = 0.05$. Thus, our cost manipulation also manipulated the perceived benefits to the help recipient. The main effect of target behavior, $F(1, 380) = 2.32$, $p = .13$, $\eta_p^2 = 0.006$, and the Cost × Target Behavior interaction, $F(1, 380) = 1.06$, $p = .30$, $\eta_p^2 = 0.003$, were not significant.

6.2.3. Correlations

Dominance and prestige were negatively correlated, $r(383) = -0.11$, $p = .036$. Perceived influence was positively correlated with dominance (controlling for prestige, $r(382) = 0.55$, $p < .001$) and prestige (controlling for dominance, $r(382) = 0.68$, $p < .001$).

6.2.4. Perceived influence

The main effect of target behavior was significant, $F(1, 380) = 3.92$, $p = .048$, $\eta_p^2 = 0.01$, but the main effect of cost was not, $F(1, 380) = 1.41$, $p = .24$, $\eta_p^2 = 0.004$. As in Studies 1–2 and in line with Hypothesis 4, the Cost × Target Behavior interaction was significant (see Fig. 5), $F(1, 380) = 4.47$, $p = .035$, $\eta_p^2 = 0.01$. When the cost of helping was low, John was seen as less influential when he refused to help than when he agreed to help, $t(196) = 3.33$, $p = .001$, $d = 0.47$, but this effect of target behavior was not significant when the cost was high, $t(185) = 0.002$, $p = .998$, $d = 0$. John appeared less influential when he refused to provide low-cost (vs. high-cost) help, $t(193) = 2.26$, $p = .025$, $d = 0.32$, but cost of helping had no effect on his perceived influence when he agreed to help, $t(188) = 0.54$, $p = .59$, $d = 0.08$.

6.2.5. Perceived prestige

The main effect of target behavior was significant, $F(1, 380) = 61.06$, $p < .001$, $\eta_p^2 = 0.14$, but the main effect of cost was not significant, $F(1, 380) = 2.50$, $p = .11$, $\eta_p^2 = 0.006$. The Cost × Target Behavior interaction was marginally significant (see Fig. 6), $F(1, 380) = 3.15$, $p = .07$, $\eta_p^2 = 0.008$. In line with Hypothesis 1a, when the cost of helping was low, John was perceived as less prestigious when he refused to help than when he agreed to help, $t(196) = 7.39$, $p < .001$, $d = 1.05$, but this difference was smaller when the cost was high, $t(185) = 3.95$, $p < .001$, $d = 0.58$. In line with Hypothesis 1b, John appeared less prestigious when he refused to provide low-cost (versus high-cost) help, $t(193) = 2.26$, $p = .025$, $d = 0.32$, but cost of helping had no effect on his perceived prestige when he agreed to help, $t(188) = 0.10$, $p = .92$, $d = 0.01$.

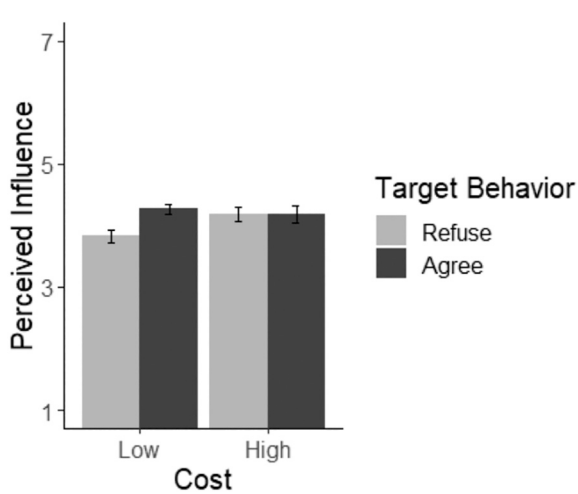

Fig. 5. Perceived influence in Study 3.
Note. Error bars are ±1 standard error.

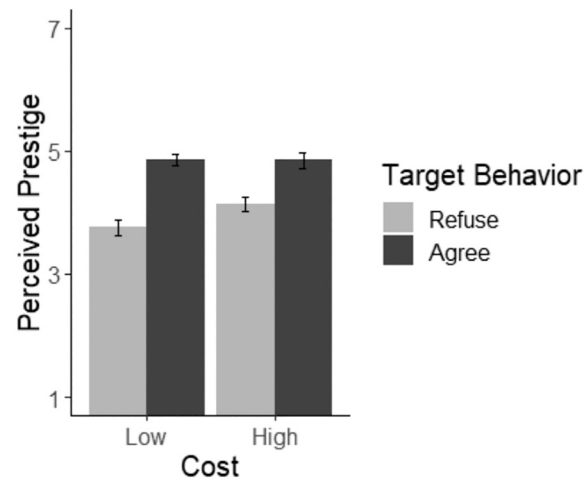

Fig. 6. Perceived prestige in Study 3.
Note. Error bars are ±1 standard error.

6.2.6. Perceived dominance

Replicating Study 2 and in line with Hypothesis 2, John was perceived as more dominant when he refused to help ($M = 3.77$, $SD = 1.34$) than when he agreed to help ($M = 2.96$, $SD = 1.30$), $F(1, 380) = 37.10$, $p < .001$, $\eta_p^2 = 0.09$. The main effect of cost, $F(1, 380) = 0.92$, $p = .34$, $\eta_p^2 = 0.002$, and the Cost × Target Behavior interaction, $F(1, 380) = 0.31$, $p = .58$, $\eta_p^2 < 0.001$, were not significant.

6.2.7. Mediation analyses

We conducted the same bootstrapped moderated mediation analyses as in Study 2 and found similar results. As shown in Table 2, the mediation by dominance was positive and not moderated by the cost of helping (moderated mediation index = 0.04, SE = 0.10, 95% CI [−0.15, 0.22]). The mediation by prestige was negative and not moderated by the cost of helping (moderated mediation index = 0.22, SE = 0.13, 95% CI [−0.03, 0.48]). Although the moderated mediation through prestige was nonsignificant (presumably due to the marginal interaction of target behavior and cost on perceived prestige), directionally the indirect effect through prestige was weaker when the cost was high versus low.

6.3. Discussion

Even when high-cost help also provided greater benefits to others than low-cost help, and cost was itself a sign of prestige, we still found that the cost of helping moderated the effect of refusing to help on influence. When David asked John to buy $6 worth of cookies for a charity fundraiser, saying no made John seem less influential than saying yes, but this effect vanished when helping involved buying $60 worth of cookies. These results were mediated by perceived prestige and dominance. In line with our predictions, when John refused to help, he was seen as less prestigious when the cost of helping was low (versus high), but the cost of helping had no effect on perceptions of John when he agreed to help.

In Study 3 the manipulation check indicated the cost manipulation was perceived as marginally weaker when John agreed to help versus refused to help. However, this cannot explain why perceptions of those who agreed to help were not influenced by the cost of helping, as high-cost help was still clearly seen as involving more cost than low-cost help ($d = 1.46$).

We proposed that the insensitivity to the cost of helping when evaluating individuals who agree to help is due to observers failing to make spontaneous comparisons between different costs of helping. To test this explanation, in a study reported in the supplemental material (Supplemental Study 1), we made the comparison explicit by showing participants multiple target people at the same time, each being asked

for help involving different costs. We adapted the email exchange from Study 3 so that participants saw David separately asking two different individuals for different-sized donations to his charity fundraiser. Though the costs varied, the individuals gave the same answer: either both said yes, or both said no. We found that when participants knew about both low- and high-cost helping requests, they perceived individuals to be more prestigious and influential when the cost of helping was high versus low, regardless of whether the individuals refused or agreed to help. These results support our argument that observers' perceptions of individuals who agreed to help were insensitive to the cost of helping because they did not spontaneously make comparisons that would highlight the amount of cost involved.

7. Study 4

Study 4 had two aims. First, helpful individuals are generally more likeable (Berman, Levine, Barasch, & Small, 2015), and people are more likely to be influenced by individuals that are more likeable (e.g., Chaiken, 1980). Thus, targets who refused to help may have been less influential, and seen as such, because of their likability, rather than their perceived dominance and prestige. To address this explanation, in Study 4 we measured participants' liking for the target.

Second, in Studies 1–3 refusing to help never increased a person's influence relative to agreeing to help, even when the cost of helping was high. In fact, in all these studies the target person had the least influence when they refused to provide low-cost help, but had a similar level of influence in the other three conditions. Thus, instead of using the full dominance-prestige framework to explain our results, a simpler explanation is that participants did not respect the person who refused to provide low-cost help. In Study 4, we aimed to test the critical role dominance played in driving perception of influence, by increasing the cost of helping even further. Given our previous findings, we predicted that in this very-high-cost situation, refusing to help should only lead to a small decrease in prestige relative to agreeing to help. As refusing to help would still also lead to an increase in dominance, and both dominance and prestige lead to influence, it is possible that refusing (vs. agreeing) to provide very-high-cost help would increase a person's influence. Such a pattern would not be predicted by focusing on prestige alone. We manipulated the cost of helping through the amount of extra time it would take the target person to drive a friend home: 1 min (low cost), 40 min (high cost), or 1.5 h (very high cost).

Finally, in our previous studies, either the help-seeker knew the cost of helping before seeking help (Studies 1 and 3), or it was unclear whether the help-seeker knew the cost of helping (Study 2). Participants may have drawn inferences about the target because of the kind of help they were asked for. For example, they might have assumed a help-seeker would only ask a target for costly help if the target was known to be generous. To address this concern, in Study 4 we specified that the help-seeker did not realize the cost involved when asking the target for help.

7.1. Method

7.1.1. Participants

A power analysis using $\eta_p^2 = 0.015$ (the average effect size of Cost × Target Behavior interaction on influence in Studies 1–3 and a pilot study), $\alpha = 0.05$ (two-tailed), indicated that 636 participants were needed to achieve 80% power. A study seeking 700 US residents was posted on Amazon Mechanical Turk, and 706 participants completed it. Of these, 88 did not pass the attention checks and therefore were excluded from data analyses, leaving 618 participants ($M_{age} = 38.80$ years, $SD_{age} = 12.31$; 299 women, 319 men; 69% White, 11% Asian, 9% Black, 4% Hispanic, 1% other, 5% multiracial). A sensitivity analysis ($\alpha = 0.05$; ANOVA: Fixed effects, special, main effects and interactions) using G*Power indicated that the sample size of 618 gave us 80% power to detect an effect size of $\eta^2 = 0.01$.

7.1.2. Design and procedure

The study was a 3 (Cost of Helping: low vs. high vs. very high) × 2 (Target Behavior: refusing vs. agreeing to help) between-subjects design. Participants imagined that they, Sally, and Laura were friends attending a social gathering, and they overheard Sally asking Laura if Laura could give her a ride home after the gathering. Participants were told that Sally could take a cab but it would cost $20, and that Sally did not know where Laura lived when she asked Laura for help. In the low-cost condition, Sally's home and Laura's home were in the same direction and driving Sally home would take Laura an extra minute. In the high-cost condition, Sally's home and Laura's home were still in the same direction but driving Sally home would take Laura an extra 40 min. In the very-high-cost condition, Sally's home and Laura's home were in opposite directions, and driving Sally home would take Laura an extra 1.5 h. Laura either agreed or did not agree to help Sally.

We added one additional item each to the measures of dominance ($\alpha = 0.92$) and prestige ($\alpha = 0.93$) used in Study 3: "others are afraid of disagreeing with Laura" and "others admire Laura," respectively. The six items measuring dominance and prestige were presented in random order. After rating Laura's dominance and prestige, participants rated Laura's influence ($\alpha = 0.89$), using the same three items as in Study 3, presented in random order. Participants also rated how much they liked Laura on a 9-point scale (0 = *not at all*, 8 = *very much*). Finally, as a cost manipulation check, participants rated how costly it was for Laura to provide the help.[6]

7.2. Results

7.2.1. Manipulation check

The main effect of cost on the rated cost of helping was significant, $F(2, 612) = 428.71$, $p < .001$, $\eta_p^2 = 0.58$. Planned contrasts showed that the cost of helping was rated as higher in the very-high-cost condition ($M = 5.68$, $SD = 1.61$) than the high-cost ($M = 4.42$, $SD = 1.89$), $t(615) = 7.70$, $p < .001$, $d = 0.71$, or low-cost conditions ($M = 1.06$, $SD = 1.41$), $t(615) = 28.08$, $p < .001$, $d = 3.06$; the cost of helping was also rated higher in the high-cost condition than the low-cost condition, $t(615) = 20.90$, $p < .001$, $d = 2.01$. Thus, our cost manipulation was successful. There was also a marginal main effect of target behavior, $F(1, 612) = 3.18$, $p = .08$, $\eta_p^2 = 0.005$. Participants tended to perceive the cost to be greater when Laura agreed to help ($M = 3.79$, $SD = 2.57$) than when she did not ($M = 3.58$, $SD = 2.52$). The interaction between the cost and target behavior manipulations was not significant, $F(2, 612) = 1.22$, $p = .30$, $\eta_p^2 = 0.004$.

7.2.2. Correlations

Dominance and prestige were negatively correlated, $r(616) = -0.31$, $p < .001$. Perceived influence was positively correlated with dominance (controlling for prestige, $r(615) = 0.42$, $p < .001$) and prestige (controlling for dominance, $r(615) = 0.51$, $p < .001$).

7.2.3. Perceived influence

The main effect of target behavior was not significant, $F(1, 612) = 0.57$, $p = .45$, $\eta_p^2 < 0.001$. The main effect of cost was significant, $F(2, 612) = 3.67$, $p = .026$, $\eta_p^2 = 0.01$. The Cost × Target Behavior interaction was also significant (see Fig. 7), in line with Hypothesis 4, $F(2, 612) = 9.41$, $p < .001$, $\eta_p^2 = 0.03$. Replicating our previous studies, when the cost of helping was low, Laura was seen as less influential when she refused to help than when she agreed to help, $t(206) = -2.74$, $p = .007$, $d = 0.38$, but this effect of target behavior was not significant when the cost was high, $t(212) = 1.09$, $p = .28$, $d = 0.15$. Furthermore, as predicted, the effect of target behavior turned positive when the cost of helping was

[6] In Study 4, we also measured participants' perception of the relationship between the cost of helping and its benefits for the recipient as an exploratory measure. The results are reported in the supplemental material.

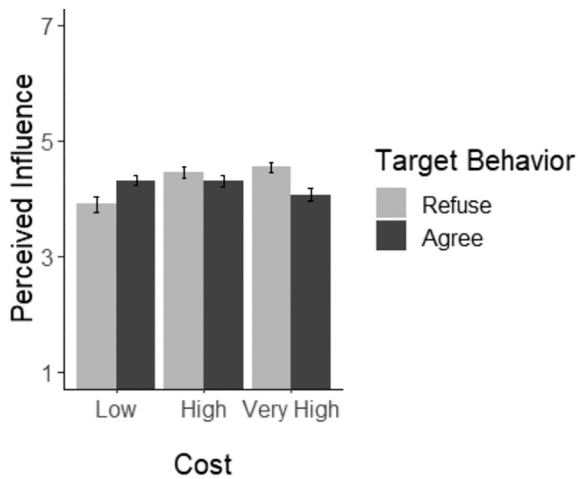

Fig. 7. Perceived influence in Study 4.
Note. Error bars are ±1 standard error.

very high: Laura was seen as more influential when she refused to provide very-high-cost help than when she agreed to provide this help, $t(194) = 3.25$, $p = .001$, $d = 0.46$.

When Laura refused to help, the cost of helping significantly affected her perceived influence, $F(2, 305) = 10.27$, $p < .001$, $\eta_p^2 = 0.06$; planned contrasts showed that she appeared less influential when the requested help involved low cost than when it involved high cost, $t(305) = 3.71$, $p < .001$, $d = 0.48$, or very high cost, $t(305) = 4.12$, $p < .001$, $d = 0.57$, but there was no significant difference between the high-cost and very-high-cost conditions, $t(305) = 0.52$, $p = .60$, $d = 0.08$. However, when Laura agreed to help, the cost of helping did not affect her perceived influence, $F(2, 307) = 2.06$, $p = .13$, $\eta_p^2 = 0.01$.

7.2.4. Perceived prestige

The main effects of target behavior, $F(1, 612) = 203.49$, $p < .001$, $\eta_p^2 = 0.25$, and cost, $F(2, 612) = 21.40$, $p < .001$, $\eta_p^2 = 0.06$, were significant. The Cost × Target Behavior interaction was also significant (see Fig. 8), $F(2, 612) = 15.57$, $p < .001$, $\eta_p^2 = 0.05$. In line with Hypothesis 1a, when the cost of helping was low, Laura was perceived as less prestigious when she refused to help than when she agreed to help, $t(206) = 12.92$, $p < .001$, $d = 1.79$, but this difference was smaller when the cost was high, $t(212) = 8.13$, $p < .001$, $d = 1.11$, and even smaller when the cost was very high, $t(194) = 4.05$, $p < .001$, $d = 0.58$. In line with Hypothesis 1b, when Laura refused to help, the cost of helping significantly affected her perceived prestige, $F(2, 305) = 37.32$, $p < .001$, $\eta_p^2 = 0.20$; planned contrasts showed that she appeared least prestigious when the requested help involved low cost and most prestigious when the requested help involved very high cost (comparisons: low vs. high, $t(305) = 6.41$, $p < .001$, $d = 0.86$; low vs. very high, $t(305) = 8.22$, $p < .001$, $d = 1.18$; high vs. very high, $t(305) = 2.02$, $p = .04$, $d = 0.29$). However, when Laura agreed to help, the cost of helping did not affect her perceived prestige, $F(2, 307) = 1.14$, $p = .32$, $\eta_p^2 = 0.007$.

7.2.5. Perceived dominance

The main effects of target behavior, $F(1, 612) = 164.21$, $p < .001$, $\eta_p^2 = 0.21$, and cost, $F(2, 612) = 6.37$, $p = .002$, $\eta_p^2 = 0.02$, were significant, in line with Hypothesis 2. Unlike previous studies, the Cost × Target Behavior interaction was also significant (see Fig. 9), $F(2, 612) = 3.67$, $p = .02$, $\eta_p^2 = 0.01$. When the cost of helping was low, Laura was perceived as more dominant when she refused to help than when she agreed to help, $t(206) = 8.70$, $p < .001$, $d = 1.21$, and this difference did not change when the cost was high, $t(212) = 8.33$, $p < .001$, $d = 1.14$, but it decreased when the cost was very high, $t(194) = 5.06$, $p < .001$, $d = 0.72$. When Laura refused to help, the cost of helping significantly affected her perceived dominance, $F(2, 305) = 8.47$, $p < .001$, $\eta_p^2 = 0.05$; planned contrasts showed that she appeared less dominant as the cost of the requested help increased (comparisons: low vs. high, $t(305) = 2.10$, $p = .03$, $d = 0.29$; low vs. very high, $t(305) = 4.12$, $p < .001$, $d = 0.60$; high vs. very high, $t(305) = 2.11$, $p = .04$, $d = 0.28$). However, when Laura agreed to help, the cost of helping did not affect her perceived dominance, $F(2, 307) = 1.23$, $p = .29$, $\eta_p^2 = 0.008$.

7.2.6. Liking

Liking for Laura was positively correlated with her perceived prestige, $r(616) = 0.69$, $p < .001$, and negatively correlated with perceived dominance, $r(616) = -0.48$, $p < .001$.

The main effects of target behavior, $F(1, 612) = 476.82$, $p < .001$, $\eta_p^2 = 0.44$, and cost, $F(2, 612) = 32.38$, $p < .001$, $\eta_p^2 = 0.10$, on liking were significant. The Cost × Target Behavior interaction was also significant (see Fig. 10), $F(2, 612) = 18.57$, $p < .001$, $\eta_p^2 = 0.06$. When the cost of helping was low, Laura was liked less when she refused to help ($M = 5.94$, $SD = 1.40$) than when she agreed to help ($M = 2.18$, $SD = 1.69$), $t(206) = 17.53$, $p < .001$, $d = 2.43$, but this difference was smaller when the cost was high, $t(212) = 11.96$, $p < .001$, $d = 1.64$, and even smaller when the cost was very high, $t(194) = 8.43$, $p < .001$, $d = 1.20$. When Laura refused to help, the cost of helping significantly affected participants' liking for her, $F(2, 305) = 42.66$, $p < .001$, $\eta_p^2 = 0.22$; planned contrasts indicated that she was liked less when the requested help involved low versus high cost, $t(305) = 7.06$, $p < .001$, $d = 1.00$, or very high cost, $t(305) = 8.58$, $p < .001$, $d = 1.22$. There was no difference in

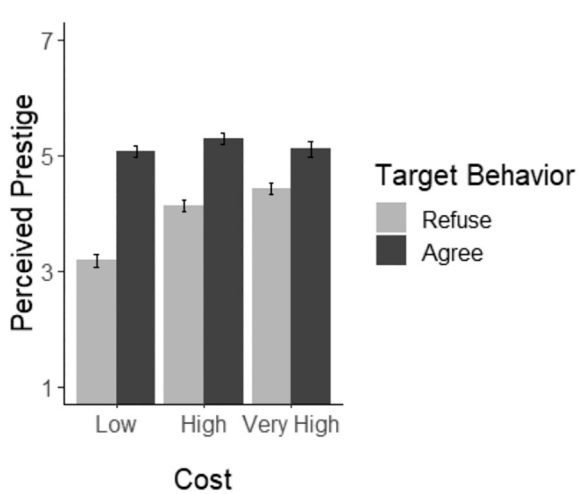

Fig. 8. Perceived prestige in Study 4.
Note. Error bars are ±1 standard error.

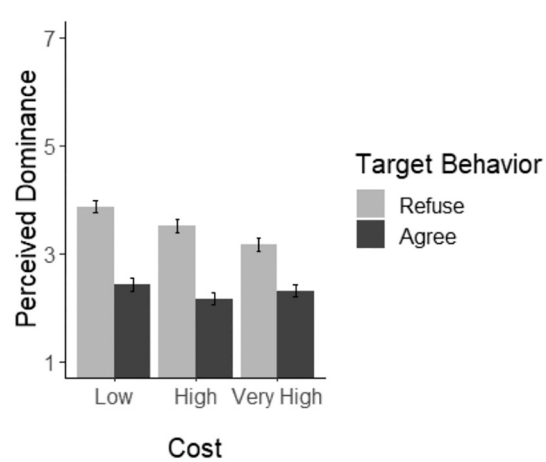

Fig. 9. Perceived dominance in Study 4.
Note. Error bars are ±1 standard error.

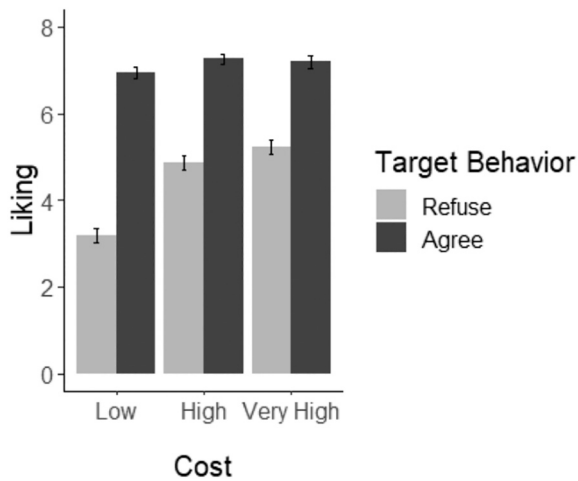

Fig. 10. Liking for Laura in Study 4.
Note. Error bars are ±1 standard error.

liking between the high- and very-high-cost conditions, $t(305) = 1.55$, $p = .12$, $d = 0.22$. However, when Laura agreed to help, the cost of helping did not affect participants' liking for her, $F(2, 307) = 1.43$, $p = .24$, $\eta_p^2 = 0.009$.

7.2.7. Mediation analyses

As in Studies 2–3, we conducted bootstrapped moderated mediation analyses, with three levels for cost. Table 2 shows the indirect effects through dominance and prestige.

The mediation by dominance was positive and moderated by the cost of helping (moderated mediation index: low cost vs. high cost = −0.03, SE = 0.06, 95% CI [−0.15, 0.10]; low cost vs. very high cost = −0.17, SE = 0.07, 95% CI [−0.31, −0.03]; high cost vs. very high cost = −0.14, SE = 0.07, 95% CI [−0.29, −0.01]). The indirect effect through dominance was of similar size when the cost was low versus high, but it was weaker when the cost was very high.

The mediation by prestige was negative and moderated by the cost of helping (moderated mediation index: low cost vs. high cost = 0.34, SE = 0.10, 95% CI [0.15, 0.55]; low cost vs. very high cost = 0.57, SE = 0.12, 95% CI [0.33, 0.81]; high cost vs. very high cost = 0.22, SE = 0.10, 95% CI [0.02, 0.44]). The indirect effect through prestige was weaker when the cost was high versus low, and it was even weaker when the cost was very high.

To examine whether dominance and prestige explained the effect of refusing to help above and beyond liking, we added liking as an additional mediator to prestige and dominance. Table 3 shows the indirect effects through dominance, prestige, and liking. The mediation by liking was nonsignificant and not moderated by the cost of helping. The mediations by dominance and prestige remained significant and moderated by the cost of helping (see the supplemental material for the full results). Therefore, prestige and dominance explained the effect of refusing to help on influence above and beyond simple liking, but liking did not explain the effect of refusing to help on influence above and beyond prestige and dominance.

7.3. Discussion

In Studies 1–3 refusing (vs. agreeing) to help decreased the target's influence when the cost of helping was low, but had no effect on their influence when the cost of helping was high. Using a new helping task and a new cost manipulation, Study 4 replicated these effects and further showed that refusing to help could increase a target's influence relative to agreeing to help when the cost became very high. When the cost of helping was low, targets who refused to help were seen as much less prestigious, and only moderately more dominant, than those who agreed to help. As the cost of helping increased, the difference in prestige between those who refused to help and those who agreed shrank significantly, but the difference in dominance less so. Thus, once the cost of helping was high enough, refusing to help actually increased the target's influence relative to agreeing.

Study 4 also addressed the alternative explanation that a target's influence was driven simply by whether they were likeable, not by their perceived dominance and prestige. Critically, when the helping involved very high cost, refusing to help increased the target's influence but still decreased the target's likeability, relative to agreeing to help. Thus, liking alone did not explain the effects of refusing to help on the target person's influence.

When Laura said no to the helping request, her prestige decreased as the help she refused to provide involved lower cost, replicating Studies 2–3, but her dominance increased, different from Studies 2–3. Future research is needed to understand what affects the perceived dominance of individuals who refuse versus agree to help. Nevertheless, the change in prestige was larger than the change in dominance; overall Laura was still less influential when she refused to provide low-cost (vs. high cost) help. The cost of helping again had no effect on perceptions of Laura when she agreed to help.

8. Study 5

Study 5 had several aims. First, in Studies 1–4, help-seekers asked the target person for assistance that likely could have been provided by other people (e.g., other classmates in Study 1). However, an observer should find it harder to excuse saying no to a helping request if the target person is one of only a few people who could help. To test whether our previous findings would replicate in such a situation, in Study 5 we indicated that the target person was one of only a few people who could provide the requested help.

In this study we tested whether our previous results were driven by refusing to help hurting a target's influence, agreeing to help increasing their influence, or both. We added a control condition where the target person was asked for help but the target's response was not provided. Since in all cases the target person received the same helping request, in this way we could isolate the separate effects of refusing and agreeing to help on the target's influence.

Study 5 also examined whether the target person's gender moderated our previous effects. Because prescriptive stereotypes dictate that women should be communal (e.g., Eagly & Mladinic, 1989; Eagly & Steffen, 1984), there may be a greater expectation that women (versus men) will agree to provide help, even when the cost of helping is high (Babcock, Recalde, & Vesterlund, 2017). Further, because women gain less status when displaying dominance than men (Brescoll & Uhlmann, 2008; Rudman & Glick, 2001; Williams & Tiedens, 2016), women may

Table 3
Indirect effects through dominance, prestige, and liking in study 4.

	Dominance			Prestige			Liking		
	Indirect effect	SE	95% CI	Indirect effect	SE	95% CI	Indirect effect	SE	95% CI
Low cost	0.42	0.07	[0.29, 0.58]	−0.84	0.11	[−1.08, −0.63]	−0.12	0.12	[−0.37, 0.13]
High cost	0.39	0.08	[0.26, 0.55]	−0.52	0.08	[−0.69, −0.37]	−0.08	0.08	[−0.23, 0.08]
Very high cost	0.25	0.06	[0.14, 0.37]	−0.30	0.08	[−0.47, −0.15]	−0.06	0.06	[−0.20, 0.07]

suffer a greater loss in influence for refusing to help than men.

Finally, helpful individuals are perceived to be warmer, meaning they are more sociable and extroverted (Goodwin, Piazza, & Rozin, 2014; Klein & Epley, 2014). Given that more extroverted people are more likely to gain influence (Anderson, John, Keltner, & Kring, 2001), targets who refused to help may have been less influential because of their perceived lack of sociability, rather than their perceived dominance and prestige. To address this possibility, in Study 5 we measured the target's perceived sociability.

8.1. Method

The methods and analyses for this study were pre-registered at https://aspredicted.org/nu63u.pdf.

8.1.1. Participants

Because the effect size of gender was unknown, in keeping with the sample size in previous studies, we aimed for 100 participants per cell for the 2 × 3 × 2 design, for a total of 1200 participants. A study seeking 1200 US residents was posted on Amazon Mechanical Turk and 1211 participants completed it. Of these, 305 did not pass the attention checks and therefore were excluded from data analyses, leaving 906 participants (M_{age} = 38.55 years, SD_{age} = 11.60; 455 women, 451 men; 70% White, 9% Asian, 9% Black, 5% Hispanic, 2% other, 4% multiracial). A sensitivity analysis (α = 0.05; ANOVA: Fixed effects, special, main effects and interactions) using G*Power indicated that the sample size of 906 gave us 80% power to detect an effect size of $\eta^2 = 0.01$.

8.1.2. Design and procedure

The study was a 2 (Cost of Helping: low vs. high) × 3 (Target Behavior: refusing to help vs. agreeing to help vs. no information) × 2 (Target Gender: male vs. female) between-subjects design. Participants read a summary of an interaction between Ann and either Brandon (male target condition) or Hannah (female target condition). Ann asked Brandon/Hannah to introduce her to an important client. The target person (i.e., Brandon or Hannah) was said to be one of a few people in the company that had worked with and had a great connection with this client. Cost was manipulated through the effort involved in getting to the meeting place: a 5-min drive in light traffic (low cost) or an hour drive in heavy traffic (high cost). The target either did or did not agree to help.[7]

Next, participants rated the target person on the same items measuring dominance (α = 0.92) and prestige (α = 0.89) as in Study 4. The target's likeability was measured using the item "to what extent is [target name] likeable"; the target's sociability was measured using the items "to what extent is [target name] extroverted," and "to what extent is [target name] sociable" (α = 0.86). Then participants rated the target on the same items measuring influence (α = 0.86) as in Study 4. Finally, as a cost manipulation check, participants rated on a 9-point scale (0 = *not at all*, 8 = *very much*) how costly it would be to help Ann.

8.2. Results

We analyzed participants' ratings with three-way ANOVAs, with cost of helping, target behavior, and target gender as between subjects factors. Table 4 lists the means and standard deviations for the measures of influence, prestige, dominance, likeability, and sociability.

8.2.1. Manipulation checks

The cost of helping was rated higher in the high-cost condition (M = 4.65, SD = 2.03) than the low-cost condition (M = 2.53, SD = 2.40), $F(1, 894) = 208.64$, $p < .001$, $\eta_p^2 = 0.19$, confirming that our cost manipulation was successful. The main effect of target behavior was significant, $F(2, 894) = 7.69$, $p < .001$, $\eta_p^2 = 0.02$. Planned contrasts showed that the cost of helping was perceived to be smaller when the target person refused to help (M = 3.18, SD = 2.35), than when the target agreed to help (M = 3.82, SD = 2.43), $t(903) = 3.14$, $p = .002$, $d = 0.26$, and when there was no information about helping (M = 3.87, SD = 2.50), $t(903) = 3.42$, $p < .001$, $d = 0.28$,[8] with the latter two conditions not differing, $t(903) = 0.27$, $p = .78$, $d = 0.02$.

The main effect of gender and all other interactions were not significant, $Fs < 3.34$, $ps > 0.08$.[9]

Table 4
Means and standard deviations of influence, prestige, dominance, likeability, and sociability in study 5.

		Low cost	High cost
Influence	Refuse	4.39 (1.15)	4.92 (0.95)
	No helping information	5.25 (0.96)	5.14 (0.83)
	Agree	5.09 (0.84)	5.10 (1.03)
Prestige	Refuse	4.16 (1.34)	4.74 (1.12)
	No helping information	5.59 (0.86)	5.44 (0.93)
	Agree	5.53 (0.83)	5.66 (0.80)
Dominance	Refuse	3.71 (1.32)	3.42 (1.27)
	No helping information	3.29 (1.62)	3.38 (1.60)
	Agree	2.79 (1.59)	3.03 (1.69)
Likeability	Refuse	3.30 (1.93)	4.45 (1.94)
	No helping information	6.28 (1.35)	6.18 (1.27)
	Agree	6.57 (1.12)	6.48 (1.25)
Sociability	Refuse	3.45 (1.87)	4.61 (1.59)
	No helping information	6.04 (1.25)	5.79 (1.31)
	Agree	6.09 (1.15)	6.26 (1.12)

8.2.2. Correlations

Dominance and prestige were negatively correlated, $r(904) = -0.14$, $p < .001$. Perceived influence was positively correlated with dominance (controlling for prestige, $r(903) = 0.33$, $p < .001$) and prestige (controlling for dominance, $r(903) = 0.63$, $p < .001$).

8.2.3. Perceived influence

The main effect of gender was marginally significant, $F(1, 894) = 3.20$, $p = .07$, $\eta_p^2 = 0.003$: the male target (M = 5.04, SD = 0.97) was seen as more influential than the female target (M = 4.96, SD = 1.02). The main effect of target behavior was significant, $F(2, 894) = 23.89$, $p < .001$, $\eta_p^2 = 0.05$. The main effect of cost manipulation was marginally significant, $F(1, 894) = 3.56$, $p = .06$, $\eta_p^2 = 0.004$. Replicating our previous studies and in line with Hypothesis 4, the Cost × Target Behavior interaction was also significant (see Fig. 11), $F(2, 894) = 9.29$, $p < .001$, $\eta_p^2 = 0.02$. When the cost of helping was low, target behavior had a significant effect on perceived influence, $F(2, 426) = 29.15$, $p < .001$, $\eta_p^2 = 0.12$: the target was seen as less influential when they refused to help, than when they agreed to help, $t(426) = 5.90$, $p < .001$, $d = 0.69$, and when there was no helping information, $t(426) = 7.26$, $p < .001$, $d = 0.81$, with the latter two conditions not differing, $t(426) = 1.39$, $p = .17$, $d = 0.18$. When the cost of helping was high, target behavior had a non-significant effect on perceived influence, $F(2, 474) = 2.33$, $p = .10$, $\eta_p^2 = 0.01$: the target's perceived influence was similar when they refused to help, when they agreed to help, and when there was no helping

[7] This study was conducted during the Covid-19 pandemic. We specifically told participants that the scenario happened before the pandemic to ensure social distancing was not a concern.

[8] In Studies 2–3, the cost of helping was perceived to be higher when the target refused (vs. agreed) to help. In Studies 4–5, the cost of helping was perceived to be higher when the target agreed (vs. refused) to help. This variation suggests that the effect of target behavior on the perception of the cost of helping cannot explain our consistent results on influence across studies. In addition, the main effect of target behavior on the perception of cost could not explain the interaction effect of target behavior and cost on the target's influence.

[9] See the supplemental material for full statistics.

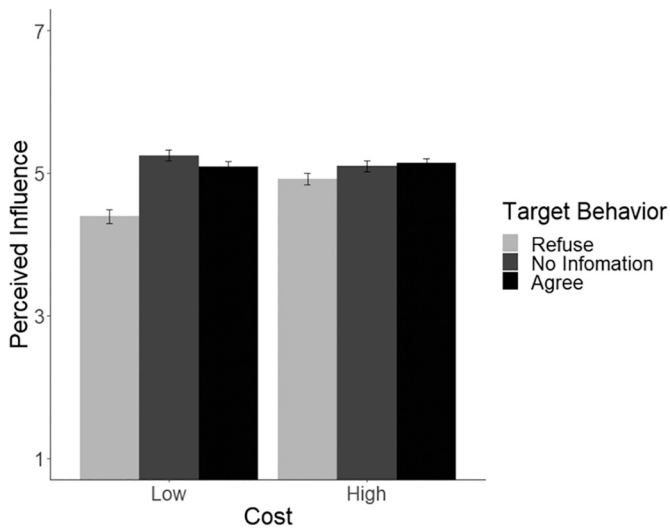

Fig. 11. Perceived influence in Study 5.
Note. Error bars are ±1 standard error.

information.

Replicating our previous studies, the target person was perceived to be less influential when they refused to provide low-cost help than high-cost help, $t(266) = 4.07$, $p < .001$, $d = 0.50$. The cost of helping had non-significant effects on the target's perceived influence when the target person agreed to help, $t(311) = 0.49$, $p = .62$, $d = 0.06$, and when there was no helping information, $t(323) = 1.37$, $p = .17$, $d = 0.15$.

All other interactions were not significant, $Fs < 1.76$, $ps > 0.16$.

8.2.4. Perceived prestige

The main effect of gender was marginally significant, $F(1, 894) = 3.47$, $p = .06$, $\eta_p^2 = 0.004$: the male target ($M = 5.27$, $SD = 1.09$) was seen as more prestigious than the female target ($M = 5.20$, $SD = 1.34$). The main effects of target behavior, $F(2, 894) = 117.53$, $p < .001$, $\eta_p^2 = 0.21$, and cost, $F(1, 894) = 6.66$, $p = .01$, $\eta_p^2 = 0.007$, were significant. The Cost × Target Behavior interaction was also significant (see Fig. 12), $F(2, 894) = 10.47$, $p < .001$, $\eta_p^2 = 0.02$. When the cost of helping was low, target behavior had a significant effect on perceived prestige, $F(2, 426) = 85.30$, $p < .001$, $\eta_p^2 = 0.28$: the target was seen as less prestigious when they refused to help, than when they agreed to help, $t(426) = 11.18$, $p < .001$, $d = 1.23$, and when there was no helping information, $t(426) = 11.70$, $p < .001$, $d = 1.27$, with the latter two conditions not differing, $t(426) = 0.50$, $p = .62$, $d = 0.07$. When the cost of helping was high, target behavior had a significant effect on perceived prestige, $F(2, 474) = 37.72$, $p < .001$, $\eta_p^2 = 0.14$: the target was still seen as less prestigious when they refused to help, than when they agreed to help, $t(474) = 8.39$, $p < .001$, $d = 0.94$, and when there was no helping information, $t(474) = 6.48$, $p < .001$, $d = 0.68$, but these effects were smaller than when the cost of helping was low; the target person was also seen as less prestigious when there was no helping information than when they agreed to help, $t(474) = 2.11$, $p = .036$, $d = 0.25$.

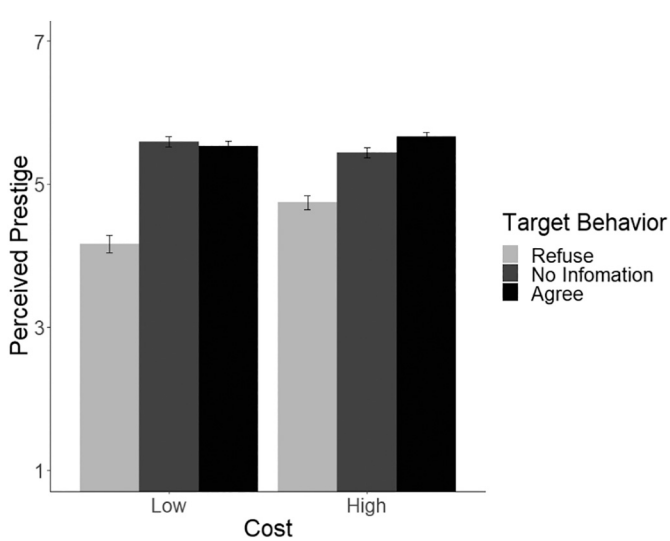

Fig. 12. Perceived prestige in Study 5.
Note. Error bars are ±1 standard error.

Replicating our previous studies and in line with Hypothesis 1, the target person was perceived as less prestigious when they refused to provide low-cost help than high-cost help, $t(266) = 3.84$, $p < .001$, $d = 0.47$. The cost of helping had non-significant effects on the target's perceived prestige when the target person agreed to help, $t(311) = 1.39$, $p = .16$, $d = 0.16$, and when there was no helping information, $t(323) = 1.49$, $p = .14$, $d = 0.17$.

All other interactions were not significant, $Fs < 1.44$, $ps > 0.23$.

8.2.5. Perceived dominance

There was a significant main effect of target behavior, $F(2, 894) = 13.62$, $p < .001$, $\eta_p^2 = 0.03$. The target person was perceived as more dominant when they refused to help ($M = 3.56$, $SD = 1.30$), than when they agreed to help, ($M = 2.92$, $SD = 1.64$) $t(903) = 5.00$, $p < .001$, $d = 0.43$, and when there was no helping information ($M = 3.34$, $SD = 1.61$), $t(903) = 1.72$, $p = .08$, $d = 0.15$. The target person as also perceived as less dominant when they agreed to help than when there was no helping information, $t(903) = 3.47$, $p < .001$, $d = 0.26$.

There was also a significant interaction between cost of helping and target's gender, $F(1, 894) = 6.64$, $p = .01$, $\eta_p^2 = 0.007$. When the cost of helping was low, the female target ($M = 3.46$, $SD = 1.55$) was perceived to be more dominant than the male target ($M = 3.05$, $SD = 1.56$), $t(427) = 2.71$, $p = .007$, $d = 0.26$; when the cost of helping was high, the female target ($M = 3.23$, $SD = 1.50$) was perceived to be as dominant as the male target ($M = 3.31$, $SD = 1.61$), $t(475) = 0.56$, $p = .58$, $d = 0.05$. The male target was perceived to be marginally more dominant when he was asked for high-cost (versus low-cost) help, $t(449) = 1.77$, $p = .08$, $d = 0.17$, but perceived dominance of the female target was not affected by the cost of helping, $t(453) = 1.56$, $p = .12$, $d = 0.15$.

The main effect of gender and all other interactions were not significant, $Fs < 2.49$, $ps > 0.08$.

8.2.6. Likeability

Likeability was positively correlated with perceived prestige, $r(904) = 0.72$, $p < .001$, and negatively correlated with perceived dominance, $r(904) = -0.16$, $p < .001$.

The main effect of target gender was significant, $F(1, 894) = 5.46$, $p = .02$, $\eta_p^2 = 0.006$: the male target ($M = 5.70$, $SD = 1.91$) was more likeable than the female target ($M = 5.58$, $SD = 1.88$). The main effects of target behavior, $F(2, 894) = 267.09$, $p < .001$, $\eta_p^2 = 0.37$, and cost, $F(1, 894) = 8.26$, $p = .004$, $\eta_p^2 = 0.01$, were significant, as was the Cost × Target Behavior interaction (see Fig. 13), $F(2, 894) = 17.29$, $p < .001$, $\eta_p^2 = 0.04$. When the cost of helping was low, target behavior had a significant effect on target's likeability, $F(2, 426) = 202.11$, $p < .001$, $\eta_p^2 = 0.49$: the target was less likeable when they refused to help, than when they agreed to help, $t(426) = 18.35$, $p < .001$, $d = 2.07$, and when there was no helping information, $t(426) = 16.80$, $p < .001$, $d = 1.79$, with the latter two conditions not differing, $t(426) = 1.67$, $p = .09$, $d = 0.23$. When the cost of helping was high, target behavior had a significant effect on likeability, $F(2, 474) = 79.90$, $p < .001$, $\eta_p^2 = 0.25$: the target was still less likeable when they refused to help, than when they agreed to help, $t(474) = 11.82$, $p < .001$, $d = 1.25$, and when there was no helping information, $t(474) = 10.22$, $p < .001$, $d = 1.06$, but these effects were smaller than when the cost of helping was low; the target person was also seen as marginally less likeable when there was no helping

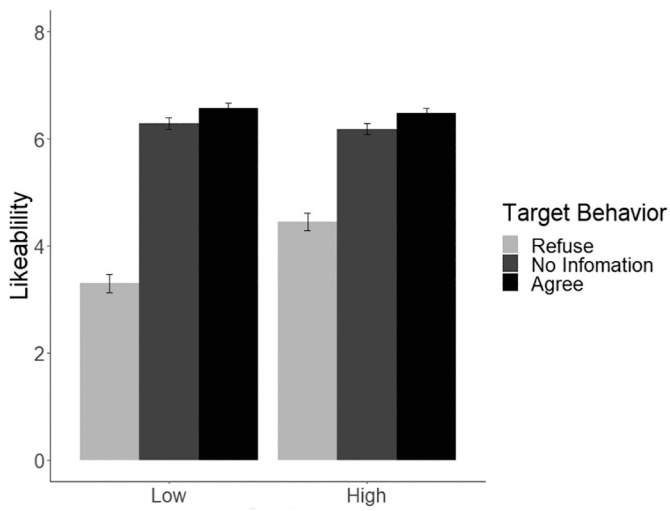

Fig. 13. Likeability in Study 5.
Note. Error bars are ±1 standard error.

information than when they agreed to help, $t(474) = 1.84$, $p = .07$, $d = 0.24$.

The target person was perceived to be less likeable when they refused to provide low-cost help than high-cost help, $t(266) = 4.87$, $p < .001$, $d = 0.60$. The cost of helping had non-significant effects on the target's likeability when the target person agreed to help, $t(311) = 0.66$, $p = .51$, $d = 0.08$, and when there was no helping information, $t(323) = 0.69$, $p = .49$, $d = 0.08$.

All other interactions were not significant, $Fs < 0.73$, $ps > 0.39$.

8.2.7. Perceived sociability

Perceived sociability was positively correlated with perceived prestige, $r(904) = 0.67$, $p < .001$, and only marginally with perceived dominance, $r(904) = -0.06$, $p = .06$.

The main effect of gender was marginally significant, $F(1, 894) = 3.81$, $p = .05$, $\eta_p^2 = 0.004$: the male target ($M = 5.49$, $SD = 1.67$) was seen as more sociable than the female target ($M = 5.41$, $SD = 1.71$). The main effects of target behavior, $F(2, 894) = 197.32$, $p < .001$, $\eta_p^2 = 0.31$, and cost, $F(1, 894) = 11.92$, $p < .001$, $\eta_p^2 = 0.01$, were significant, as was the Cost × Target Behavior interaction (see Fig. 14), $F(2, 894) = 20.27$ $p < .001$, $\eta_p^2 = 0.04$. When the cost of helping was low, target behavior had a significant effect on target's perceived sociability, $F(2, 426) = 150.00$, $p < .001$, $\eta_p^2 = 0.41$: the target was less sociable when they refused to help, than when they agreed to help, $t(426) = 15.28$, $p < .001$, $d = 1.70$, and when there was no helping information, $t(426) = 15.05$, $p < .001$, $d = 1.63$, with the latter two conditions not differing, $t(426) = 0.29$, $p = .77$, $d = 0.04$. When the cost of helping was high, target behavior had a significant effect on sociability, $F(2, 474) = 59.27$, $p < .001$, $\eta_p^2 = 0.20$: the target was still less sociable when they refused to help, than when they agreed to help, $t(474) = 10.65$, $p < .001$, $d = 1.20$, and when there was no helping information, $t(474) = 7.72$, $p < .001$, $d = 0.81$, but these effects were smaller than when the cost of helping was low; the target person was also seen as less sociable when there was no helping information than when they agreed to help, $t(474) = 3.21$, $p = .001$, $d = 0.38$.

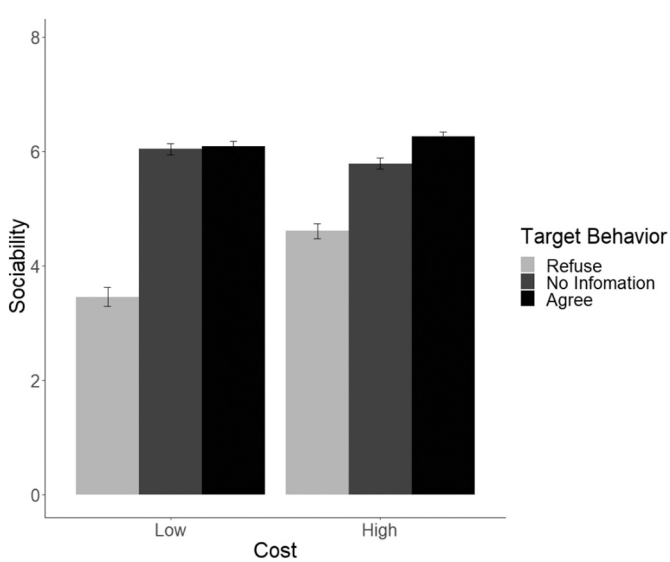

Fig. 14. Perceived sociability in Study 5.
Note. Error bars are ±1 standard error.

The target person was perceived to less sociable when they refused to provide low-cost help than high-cost help, $t(266) = 5.46$, $p < .001$, $d = 0.67$. When there was no helping information, the target person was perceived as marginally less sociable if they were asked to provide high-cost help than low-cost help, $t(323) = 4.87$, $p = .08$, $d = 0.20$. The cost of helping had a non-significant effect on the target's sociability when the target person agreed to help, $t(311) = 1.32$, $p = .19$, $d = 0.15$.

All other interactions were not significant, $Fs < 0.97$, $ps > 0.37$.

8.2.8. Mediation analyses

As in previous studies, we conducted moderated mediation analyses. Table 5 shows the indirect effects through dominance and prestige. Because we used three different target behavior manipulations in this study, we set the target behavior as a multicategorical independent variable in PROCESS (Hayes, 2013) and coded the variable using the indicator approach.

First, refusing to help was compared to agreeing to help (refusing to help = 1, agreeing to help = 0), as in our previous studies. The mediation by dominance was positive, and the indirect effect was weaker when the cost was high (versus low) (moderated mediation index = −0.09, SE = 0.04, 95% CI [−0.18, −0.01]), similar to Study 4 but different from Hypothesis 3. The mediation by prestige was negative, and the indirect effect was weaker when the cost was high (versus low) (moderated mediation index = 0.23, SE = 0.10, 95% CI [0.05, 0.44]), replicating Studies 2–4 and supporting Hypothesis 3b.

Next we conducted exploratory mediation analyses comparing the no-helping-information condition with the agreeing-to-help condition and the refusing-to-help condition.

When the agreeing-to-help condition was compared to the no-helping-information condition (agreeing to help = 1, no helping information = 0), the mediation by dominance was negative and not moderated by the cost of helping (moderated mediation index = 0.03, SE = 0.05, 95% CI [−0.06, 0.12]. The mediation by prestige was non-significant in the low-cost condition but positive in the high-cost condition (moderated mediation index = 0.17, SE = 0.08, 95% CI [0.004, 0.34]). In sum, the difference between the agreeing-to-help condition and no-helping-information condition was driven by both dominance and prestige in the high-cost condition, but only dominance in the low-cost condition.

When the refusing-to-help condition was compared to the no-helping-information condition (refusing to help = 1, no helping information = 0), the mediation by dominance was positive and not moderated by the cost of helping (the moderated mediation index = 0.06, SE = 0.04, 95% CI [−0.01, 0.13]). The mediation by prestige was negative and the indirect effect was weaker when the cost was high (versus low) (moderated mediation index = 0.43, SE = 0.12, 95% CI [0.21, 0.67]). In sum, the difference between refusing-to-help condition and no-helping-information condition was driven by both dominance and prestige, but the effect through prestige was weaker in the high-cost (vs. low-cost) condition.

Finally, to test whether prestige and dominance explained the effects above and beyond likeability and sociability, we added likeability and

Table 5
Indirect effects through dominance and prestige in study 5.

		Dominance			Prestige		
		Index	SE	95% CI	Index	SE	95% CI
Refuse to help (1) vs. Agree to help (0)	Low cost	0.16	0.04	[0.09, 0.23]	−0.7	0.1	[−0.91, −0.51]
	High cost	0.07	0.03	[0.01, 0.13]	−0.47	0.06	[−0.60, −0.35]
Refuse to help (1) vs. No helping information (0)	Low cost	0.06	0.03	[0.01, 0.12]	−0.85	0.1	[−1.06, −0.65]
	High cost	0.005	0.02	[−0.04, 0.06]	−0.42	0.07	[−0.56, −0.28]
Agree to help (1) vs. No helping information (0)	Low cost	−0.09	0.04	[−0.16, −0.02]	−0.04	0.06	[−0.15, 0.08]
	High cost	−0.06	0.03	[−0.13, −0.001]	0.13	0.06	[0.02, 0.26]

sociability as additional mediators and reran the above analyses. Table 6 shows the indirect effects through dominance, prestige, likeability, and sociability. The patterns of the mediations by dominance and prestige did not change. The pattern of mediation through perceived sociability was similar to that through perceived prestige. The mediation through likeability was non-significant except when comparing the agreeing-to-help condition with the no-helping-information condition.

8.3. Discussion

In a new context where few people other than the target person could provide the requested help, we again found the cost of helping moderated the effect of refusing to help on perceived influence. With the addition of the no-helping-information condition, we were able to separate the effects of refusing versus agreeing to help on the target's influence. The findings indicated that though refusing to help hurt a person's influence when the cost of helping was low, agreeing to help did not increase their influence. The target's gender did not moderate the effects of refusing to help, perhaps because the expectation of agreeing to provide low-cost help was strong for all targets. Thus, Study 5 replicated our previous finding that refusing to help decreased influence only when the cost of helping was low, but did not find evidence that this effect was moderated by the target's gender.

Although there was no significant interaction between the cost of helping and target behavior on perceived dominance, when comparing refusing to help with agreeing to help, the indirect effect through dominance was weaker when the cost was high (versus low), different from Hypothesis 3 but similar to Study 4. Nevertheless, the moderating effect of cost on the indirect effect was much weaker for dominance than for prestige, so we still found that those who refused to provide low-cost help appeared less influential than everyone else.

Finally, mediation analyses showed that the effect of refusing to help on influence was mediated by perceived sociability, as well as dominance and prestige, but not liking. Dominance and prestige explained the effects of refusing to help on influence above and beyond both perceived sociability and liking.

9. General discussion

When and how does saying no to a helping request make someone appear less influential and have less actual influence than saying no? Applying a dominance-prestige framework, we sought to answer this question by examining the effect of a person's response to a helping request on their influence, and whether this was mediated by that person's perceived prestige and dominance and moderated by the cost of providing help. In line with Hypothesis 4, refusing to help decreased a person's influence relative to agreeing to help when helping cost little time, effort, or money, but the negative effect of refusing to help on influence was eliminated (Studies 1–5) or even reversed (Study 4) when the requested help was costly to provide. In short, it hurts to be unhelpful, but only if the helping would have been easy. We found these effects with both actual and perceived influence under a variety of circumstances: in situations where participants witnessed real interactions in the lab as well as read a summary of interactions in organizational contexts, in perceptions of fellow students as well as colleagues or friends, when the cost involved effort and time as well as money, when increased cost also came with increased benefits for others, when the help-seeker was either aware or unaware of the cost of helping for the person they were asking, when there were many others as well as few others who could provide the help, and when the target person's gender was male as well as female. Finally, Study 5 found that these effects were driven more by refusing to provide help hurting a person's influence than agreeing to help increasing their influence.

In line with Hypothesis 3, perceived dominance and prestige mediated the effect of agreeing to help on influence, and the mediation through prestige was moderated by the cost of helping. We note that our mediation analyses were based on solid theoretical grounds, namely the dominance-prestige theory (Cheng & Tracy, 2014), and the results were consistent with our proposed model. However, such analyses cannot establish causation; future research could use experiments to seek better evidence for the causal relationships in the model. In addition, dominance and prestige are not the only two processes through which refusing to help affects a person's influence. We examined both likeability and sociability as additional mechanisms. Likeability did not explain the effects above and beyond dominance and prestige (Studies

Table 6
Indirect effects through dominance, prestige, liking, and sociability in study 5.

		Dominance			Prestige			Likeability			Sociability		
		Index	SE	95% CI	Index	SE	95% CI	Index	SE	95% CI	Index	SE	95% CI
Refuse to help (1) vs. Agree to help (0)	Low cost	0.16	0.04	[0.09, 0.24]	−0.54	0.1	[−0.74, −0.36]	−0.08	0.13	[−0.33, 0.17]	−0.3	0.11	[−0.53, −0.07]
	High cost	0.07	0.03	[0.01, 0.13]	−0.36	0.06	[−0.49, −0.24]	−0.05	0.08	[−0.20, 0.11]	−0.18	0.07	[−0.33, −0.05]
Refuse to help (1) vs. No helping information (0)	Low cost	0.06	0.03	[0.01, 0.11]	−0.67	0.1	[−0.88, −0.48]	−0.11	0.12	[−0.34, 0.13]	−0.27	0.11	[−0.51, −0.06]
	High cost	0.005	0.02	[−0.04, 0.05]	−0.33	0.06	[−0.46, −0.21]	−0.06	0.07	[−0.20, 0.08]	−0.12	0.05	[−0.24, −0.02]
Agree to help (1) vs. No helping information (0)	Low cost	−0.09	0.03	[−0.16, −0.02]	−0.02	0.04	[−0.11, 0.06]	0.04	0.02	[0.0002, 0.09]	0.005	0.02	[−0.03, 0.04]
	High cost	−0.06	0.03	[−0.13, −0.001]	0.09	0.04	[0.01, 0.18]	0.04	0.02	[0.003, 0.10]	0.05	0.02	[0.01, 0.10]

4–5); Study 5 identified perceived sociability as another mechanism, and we suspect there are others.

Refusing to help decreased a person's prestige, relative to agreeing, but this effect shrank as the cost of helping increased, supporting Hypothesis 1. The reduction in the negative effect of refusing to help on perceived prestige was due to cost having differential effects on those who refused to help and those who agreed to help. Whereas those who refused to help appeared less prestigious when they refused low-cost (vs. high-cost) help, the cost of helping had no effect on the perceived prestige of those who agreed to help. In line with Hypothesis 2, refusing to help increased a person's dominance. The cost of helping did not affect the target person's dominance in almost all our studies; even when there was an effect in Study 4, the effect size was relatively small. Future work might explore what influences how dominant people who agree versus refuse to help are perceived to be. As previously discussed, the perceived dominance of individuals who agree to help is likely to be influenced by perceptions of how much they are forced to help. The perceived dominance of those who refuse to help is likely to be influenced by perceptions of how much they are going against others' wishes.

9.1. Practical implications

Our work has several practical implications. First, people may not be well-calibrated as to how being helpful affects their ability to influence others, and our findings provide relevant guidance. Some individuals may believe that saying no to helping requests will always hurt their reputation and thus agree to provide high-cost help even though it could cause them physical and psychological stress (e.g., Bolino & Turnley, 2005), but our research demonstrates that saying no to providing high-cost help does minimal harm to one's prestige and influence. Thus, our findings could relieve individuals of the burden of saying yes to costly helping requests.

Other individuals may believe that providing small favors does not affect their reputation because they are small, and thus are reluctant to provide low-cost help, but our research demonstrates that saying no to low-cost requests leads to sizable decreases in one's prestige and influence. Thus, our findings could encourage individuals who care about their prestige and influence to help others when providing help is not very costly.

Second, our research showed that observers do not perceive those who agree to provide high-cost help as more respectable than those who agree to provide low-cost help. However, helpers are likely to expect others to give them more credit when they incur a higher cost to help others. This mismatch between observers' perceptions and helpers' expectations may make helpers feel unrecognized and discouraged from providing help in the future (Grant & Gino, 2010). Observers need to be aware of their insensitivity to the cost of helping, put the cost of helping in context, and give the helpers the credit they deserve. This is particularly important for observers higher in the hierarchy, whose perceptions and decisions have greater consequences for the helper.

Third, our findings highlight how a person's influence is driven by both how much others respect them and how much others fear them, and that these represent two unique sources of influence. In our research, the relationship between perceived dominance and perceived prestige varied across studies: they were positively correlated in one study, negatively correlated in three studies, and uncorrelated in one study. Other research on prestige and dominance has also found a range of correlations. While Cheng et al. (2010), Cheng et al. (2013) found that peer-rated dominance and prestige were uncorrelated, peer-rated dominance and prestige have been negatively correlated in other studies (Halevy, Chou, Cohen, & Livingston, 2012; Halevy, Halali, & Cohen, 2020). This means that individuals need to consider an action's separate effects on prestige and dominance when deciding whether it will increase their influence in the workplace. For instance, giving accurate feedback can increase one's prestige through increasing one's perceived competence. However, its effect on dominance may depend on whether the feedback is positive or negative. Giving negative feedback may make one appear more threatening and forceful and thus be more likely to increase one's perceived dominance than giving positive feedback (Chou, 2018).

9.2. Theoretical contributions

Our findings contribute in several ways to our understanding of prosocial behavior. First, it adds to a growing body of research on helping requests: what leads people to ask for help (Bohns, 2016; Flynn & Lake, 2008; Nadler & Halabi, 2006), and what leads people who are asked for help to say yes (Converse, Risen, & Carter, 2012; Cunningham, Steinberg, & Grev, 1980; Graziano, Habashi, Sheese, & Tobin, 2007; Romer, Gruder, & Lizzadro, 1986; Shnabel & Nadler, 2008).

Second, in most research on perceptions of helping (Hardy & Van Vugt, 2006; Willer, 2009), participants were directly affected by the target person's choice to help or not, so their evaluations of the target could have been a form of direct reciprocity (e.g., Ouyang, Xu, Huang, Liu, & Tang, 2018; Trivers, 1971). In our studies, participants were third parties who were not directly affected by any helping or lack thereof, and therefore may not have felt obligated to reward the helper with more influence. Indeed, refusing to help did not always lead to less influence on third parties, particularly when the helping was costly to provide. Our research also provides evidence that third-party observers' impressions of the target person can significantly impact the target's interaction with these observers, as shown in Studies 1 and 2. Future research could explore the downstream consequences of observers' impressions for the target's broader social relations, including their ability to influence a wider audience.

Third, while past research has focused on the effect of helping on prestige (Hardy & Van Vugt, 2006; Willer, 2009), our research sheds light on the negative effect of helping on dominance and how this alters helping's effects on a person's influence. Future research on the reputational consequences of helping needs to consider the role of dominance. For example, because not contributing to the common good violates the social norm of cooperation (Pillutla & Chen, 1999), contributing in a public goods dilemma may make a person appear less dominant than not contributing. Thus, contributing in a public goods dilemma may have opposite effects on a person's influence through increasing prestige and decreasing dominance. This opens up opportunities for future research to explore moderators in public goods dilemmas that might alter the relative sizes of these two opposing forces and therefore the effect of contributing to public goods on one's influence. However, providing help should not always decrease one's dominance. For example, if there is no explicit request for help, not offering to help may not be seen as going against others' wishes, and spontaneously offering help may not be seen as being forced to provide help. Thus, helping that is offered spontaneously, without a helping request, may not decrease a person's dominance, relative to not offering to help.

The present research provides strong support for the dominance-prestige account of social rank. Our research demonstrated that refusing to help affects dominance and prestige in opposite ways, and both dominance and prestige mediate the effect of refusing to help on perceived influence. This model particularly illustrates why refusing to help in response to a request had a negative effect on perceived influence when the cost of that help was low, but the effect diminished or even reversed when the cost was high. As such, our research highlights that the dominance-prestige model is a useful framework for studying how various factors affect a person's influence. For instance, for factors affecting dominance and prestige in the same direction (e.g., wealth; Cheng & Tracy, 2013), the prediction would be a consistent main effect. For factors affecting dominance and prestige in opposite directions (e.g., lying), the predicted indirect effects through dominance and through prestige would be in opposite directions. Thus, whether a change in this factor will increase or decrease influence overall should depend on the

relative size of these two indirect effects.

Finally, our research has implications for the costly signaling of prosociality. We found that observers were not sensitive to the cost of the help individuals agreed to provide unless they were provided with information that explicitly provided comparison standards (e.g., helping requests involving different levels of cost). This finding seems to contradict costly signaling theory (Smith & Bird, 2000), which posits that individuals who engage in more costly behaviors are perceived to possess more of desirable qualities such as prosociality, strength, and access to valuable resources (e.g., McAndrew, 2002; Smith & Bird, 2000). It also seems inconsistent with previous findings that group members that contribute more in a public goods game are rewarded with higher status (e.g., Hardy & Van Vugt, 2006; Willer, 2009). However, we argued that the insensitivity found in our studies was not because observers did not value agreeing to high-cost help more than agreeing to low-cost help, but rather because observers did not spontaneously compare high-cost help with low-cost help. Indeed, once observers were aware of both high-cost and low-cost helping requests, they evaluated agreeing to high-cost help more positively than agreeing to low-cost help (Supplemental Study 1). In a classic example of costly signaling, Meriam men who hunt turtles for public feasting events in the non-nesting season are perceived to be stronger and more generous than those who collect turtle in the nesting season, which is relatively easier (Smith & Bird, 2000). Presumably Meriam locals are familiar with the costs involved in different ways of obtaining turtle meat and can readily compare one cost against another. Similarly, in prior work participants received information about several fellow group members who each incurred different costs to help their group, which made comparisons between different costs explicit (Hardy & Van Vugt, 2006; Willer, 2009). Our finding suggests that individuals who want to send a stronger signal of their prosociality by providing high-cost help need to highlight this high cost by making salient other low-cost help.

9.3. Limitations and future directions

In most of our studies, we manipulated the cost of providing help for the target while holding constant the benefits for the recipient of receiving such help. In Study 5, we manipulated the cost of providing help for the target and the benefits for the recipient of receiving this help in parallel, so that high costs meant greater benefits. However, since cost and benefits were confounded in these studies, these results do not speak to the role of benefits in isolation. For a thorough understanding of the role of the benefits gained by others from a target's help, or the benefits lost due to a target's choice of not to help, in observers' perceptions of the target, future research should vary the costs and benefits of providing help orthogonally (e.g., Zhang & Epley, 2009). In addition to having its own effect, benefit of helping may also affect perceived cost of helping. What constitutes very high cost in observers' eyes may depend on the benefit that comes with the help. Driving 1.5 h is a very high cost when it saves $20, but a moderate cost when it saves $200, and even a low cost when it saves a life.

Considering the costs and benefits of helping separately would shed light on how our results might extend to helping situations different from the ordinary helping we studied, such as extraordinary helping involving life and death (Burnstein, Crandall, & Kitayama, 1994; Graziano et al., 2007; Vekaria, Brethel-Haurwitz, Cardinale, Stoycos, & Marsh, 2017). Extraordinary helping differs from ordinary helping in the size of both the benefit to the recipient and the cost for the helper. It is possible that if the benefit to others is large enough (e.g., a life saved), refusing to provide help when the cost of helping was moderately high would still seem extremely selfish and thus would still result in a huge hit to the person's prestige and influence. Additionally, when helping involves extraordinary costs (e.g., sacrificing one's life), observers may not need a comparison standard to be aware of its extreme level of selflessness. Individuals who agree to incur extraordinary costs should then be more prestigious and influential than those who agree to incur relatively low costs.

Future research should also consider other factors that may moderate the relationship between refusing to help and one's influence. For example, the hierarchical relationship between the help-seeker and the target person may alter the effects of refusing to help on perceived dominance and prestige. Individuals are more likely to be seen as being forced to help or driven by ingratiation motives when the help-seeker has more (versus less) power than the target person (Inesi, Gruenfeld, & Galinsky, 2012; Kunstman, Fitzpatrick, & Smith, 2018). As such, refusing to help may have a smaller effect on perceived prestige and a larger effect on perceived dominance, and thus be less likely to decrease one's influence, when a high-power person requests help from someone below them than vice versa. The target person's gender may also moderate the effect of refusing to help on influence, particularly in situations where one gender would be expected to help more, such as with gender stereotypical helping tasks. For example, refusing to help others carry heavy items may hurt men's influence more than women's, whereas refusing to help others care for a pet may hurt women's influence more than men's.

10. Conclusion

Do individuals lose influence by saying no to others' helping requests? We sought to answer this question by studying the impressions third-party observers formed of individuals who agreed or refused to help. Considering both dominance and prestige as pathways to influence, we found that the answer varied depending on whether the help was costly to provide. Refusing a helping request (versus agreeing) made an individual less influential when it cost little time, effort, or money to provide the help. However, this effect was eliminated or even reversed when providing the help was more costly.

11. Open practices

All data and survey materials can be found on Open Science Framework using the following link: https://osf.io/3nbq7/?view_only=a5891b2d4dd940a59f3c9bedce0352ff.

Appendix A. Supplementary data

Supplementary data to this article can be found online at https://doi.org/10.1016/j.jesp.2021.104120.

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