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Pressure to Support Meritocracy vs. Nepotism

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PRESSURE TO SUPPORT MERITOCRACY VS. NEPOTISM

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Abstract

Elite universities in the United States aim to admit the most qualified and competent students (*meritocratic* recruitment), but also prioritize admitting children of alumni via legacy programs (*nepotistic* recruitment). These two approaches to admissions are often at odds because the children of alumni might not be the most qualified applicants. What happens when people are forced to support an applicant who is meritocratic, nepotistic, both meritocratic and nepotistic, or neither? To examine this question, I had participants assume the role of an admissions counselor in an admissions committee tasked with picking one top student to admit. I predicted that without pressure to agree on supporting an applicant, participants would support the meritocratic applicant over the nepotistic applicants and perceive the meritocratic applicant to be more qualified than the nepotistic applicant. However, if there is pressure to agree to support a particular applicant, participants would publicly support the favored applicant but privately resent doing so. Results provided mixed support: Although pressure did not directly influence public and private endorsement, there was an indirect of pressure on endorsement measures via reactance. Pressure elicited the same psychological mechanisms (reactance and informational contamination) that help explain why people tend to favor meritocratic applicants but disfavor nepotistic applicants. I close with discussing implications of these two recruitment methods.

A lot of people think big business in America is a bad thing. I think it's a really good thing. Most people in business are ethical, hard-working, good people. And it's a meritocracy.

-Steve Jobs

The world is not a meritocracy, as much as we may like to pretend that it is. And we have a really long way to go before we really reward people based on their own merit.

-Malcolm Gladwell

Pressure to Support Meritocracy vs. Nepotism

When businesses recruit new employees, when schools recruit new students, and when sports team recruit new players, recruitment practices often focus on hiring individuals who are most competent (Petersen, Saporta, & Seidel, 2000). Recruiting the most qualified and competent people is known as meritocracy. Meritocratic recruitment aims recruit to the most talented group of people from a given population to maximize competency and productivity. For instance, Olympic teams recruit the best athletes in each country. Top technology companies such as Google, Facebook, and Amazon actively recruit the most qualified applicants, which in turn maximizes the productivity of those companies (Tobak, 2017).

Nonetheless, as the opening quotations denote, some people believe that the world is meritocracy, while others do not. Given recent events that sparked moral outrage such as the 2019 college admissions bribery scandal (Kates, 2019), which involved cheating in standardized tests (Hartocollis & Engelmayer,

2019) and faking extra-curricular credentials (Levitz & Korn, 2019), it is important to understand how people perceive meritocracy and nepotism as recruitment methods in elite U.S. universities. In this project, I will examine how participants perceive a university applicant's competency when an authority figure forces the participant to support the applicant. In doing so, I will examine how the psychology of forced consensus influences how people perceive the competency of meritocratic and non-meritocratic applicants.

Below, I first discuss the merits and drawbacks of meritocracy and nepotism, the possible conflict between meritocracy and nepotism, predicted outcomes of what will likely happen if one is forced to support a meritocratic or nepotistic applicant, followed by two psychological mechanisms of forced consensus. In particular, I discuss how a forced consensus may work to instill public agreement, but how reactance and informational contamination may undermine its effectiveness for private agreement.

Meritocracy and Nepotism

Since meritocratic organizations bring together the most capable individuals and finding the best person can be highly rewarding for both the organization and the individual, competition to join meritocratic organizations is sure to follow (Ledgerwood, Mandisodza, Jost, & Pohl, 2011). Individuals who know they are not the most qualified for the position may compensate by increasing their competency. But they may also use methods that in one way or another circumvents meritocracy. They may use blatant disingenuous methods, such as trying to appear more competent than they are (e.g. exaggerating their

resume). Alternatively, persons may use personal connections of some kind to land a job or gain admissions to a university, even if their skills would suggest they are not qualified.

One form this reliance on personal connections takes is nepotism. Nepotism is the practice of favoring those in one's in-group (e.g. family members) above other factors (Firfiray, Cruz, Neacsu, & Gomez-Mejia, 2018). Nepotism occurs in universities (e.g., legacy programs), in the workplace (e.g., family businesses), in Hollywood, and also in politics (Robertson-Snape, 1999; Fanning, Howard, & O'Boyle, 2010).

In the current research, we examine the conflict between meritocracy vs. nepotism in the context of admissions to elite universities in the United States. While elite universities aspire to recruit the best and brightest students, they also consistently recruit children of alumni (i.e., legacy programs) who may not be the most qualified applicants (Nisen, 2013). Although supporters of meritocratic recruitment argue against these legacy programs because being related to alumni provides applicants an unfair advantage, those who support nepotistic recruitment argue that legacy programs instill continuity as alumni will actively stay involved with the university, provide networking opportunities, and that children of alumni are often highly successful.

As this paper explores key factors that make people more or less likely to endorse meritocratic or nepotistic applicants, I will first discuss common reasons why each system is endorsed, as well as pertinent issues with each system.

The Benefits and Drawbacks of Meritocracy

In theory, meritocracy maximizes competency and garners the most talent and quality. The top business firms, law firms, and technology firms hire the most competent employees to keep themselves ahead of their competition. Elite universities aim to recruit the most competent students so their graduating classes would perform well in the “real world”.

Generally speaking, meritocracy is the default method in hiring/admission practices because it recruits the best possible applicants and presumably provides the organization with the most gain (Littler, 2018). However, meritocracy faces a handful of crucial issues that may reduce its effectiveness (Littler, 2018). Hiring via meritocracy can 1) be tedious and costly, 2) be highly difficult to measure, and 3) assume talent and intelligence are innate (see Heine, 2018, for a discussion).

These issues in meritocracy apply in the context of admissions to elite university programs, which often draw in thousands of applications every year. Since each application contains many components (i.e. Grade point average, standardized test scores, recommendation letters, personal statements, etc.), going through every application thoroughly consumes thousands of hours that admission committees might not have. As such, admission committees often narrow down the application pool via arbitrary cut-off scores of some given quantitative values such as percentiles in grade point average and standardized test scores (e.g., GRE, MCAT, LSAT, GMAT). This practice indeed narrows down the applicant pool, but the cut-off scores often assume that standardized tests accurately measure intelligence. However, this is not necessarily the case;

even the most robust standardized tests, such as Raven's Progressive Matrices, are entangled in culture and biased against some groups of people (Nisbett, 2009; Heine, 2018).

Even if we assume standardized test scores genuinely capture intelligence, cut-off scores may overlook vital non-cognitive measures and unrealized talent that could predict high performance in university contexts. Applicants who have subpar SAT scores may have personality traits that predict strong performance in university. High trait conscientiousness, for instance, is associated with high GPA scores (Noftle & Robins, 2007). Conscientiousness is overlooked in standardized tests but is instead conveyed via other means such as recommendation letters or personal statements. Yet, the value of non-cognitive measures conveyed via recommendation letters and personal statements face the issue of a ceiling effect (i.e. recommendation letters almost always praise the student) or manipulation (e.g. personal statements can be written by a group of people that exaggerates the student's achievements and appropriate fit for the university program).

Lastly, meritocracy assumes that talent and intelligence are innate which, in turn, can create arbitrary social divisions by implying that people who are born intelligent are fit for success while those born with subpar intelligence are not (Haier, 2017). Indeed, merit-based beliefs open doors for prejudice against the less educated (Kuppens et al., 2018), and priming merit-based beliefs can lead people to justify inequality due to perceived differences in talent (McCoy & Major, 2007). But not all talent is necessarily inherited as the heritability of talent and IQ

can be highly variable (Heine, 2018). IQ heritability could be lower in wealthier populations partly because children who live in rich environments have access opportunities for intellectual engagement, whereas children who live in poor environments could face more fluctuation as to how much their environments provide intellectual development (Nisbett, 2009; Heine, 2018). Nonetheless, there are people who believe that intelligence is innate and that genetic predispositions can play a role in excluding certain groups from the meritocracy pool.

The Benefits and Drawbacks of Nepotism

While recruiting via meritocracy aims to maximize competency, recruiting via nepotism prioritizes in-group members, particularly family members (Riggio & Saggi, 2015). While in Western contexts “nepotism” has a negative valence, there are in fact many arguments both for and against nepotism. On one hand, opponents of nepotism argue that placing family members ahead of the competition is unfair because prioritizing one’s family could potentially exclude more competent people who are in the outgroup. Those born in a family with meaningful connections may be given more opportunities without considering one’s ability. As such, people often believe that when nepotism is involved, the beneficiary of nepotism is unqualified (Padgett & Morris, 2005).

In the context of elite universities, nepotism favors children of alumni, professors, or those with authority (e.g. Deans). Research has found that nepotism occurs in U.S. universities at substantial rates (Golden, 2003), the probability of admitting a legacy student in many selective U.S. universities can

be at least three times greater than admitting a non-legacy student (Espenshade, Chung, & Walling, 2004; Hurwitz 2011), and that legacy students do, on average, have lower GPAs than students admitted via meritocratic means (Massey & Mooney, 2007). Because of these findings, students who get admitted via legacy programs may be perceived as having unwarranted and undeserved acceptance to a top school.

On the other hand, proponents of nepotism argue that people understand in-group members (i.e. family members or close friends) well and having a preexisting relationship is highly beneficial when it comes to working together. Indeed, some research suggests that merit-based recruitment in sports teams can, after a certain point, hinder team performance due to the lack of intrateam coordination (Swaab, et al., 2014). This suggests that despite the potential drawback of compromising talent, recruiting from within the family (or other ingroups) can increase coordination if viewpoints and beliefs are aligned. Trust, for instance, is often a competitive advantage within family businesses because employers can assume loyalty, and by extension, a lower likelihood of betrayal from their fellow family employees (Sundaramurthy, 2008).

What Influences the Psychology of Meritocratic vs. Nepotistic Applicants?

Meritocracy and nepotism are often at odds since someone familiar (e.g. close friend or family member) is not necessarily the most competent. Recruiting via meritocracy and nepotism is an issue that has been debated for years (Espenshade & Chung, 2005) and this debate stems from the perceived unfairness of nepotism. Specifically, nepotism is thought to be unfair when the

person chosen for the position is not qualified or not competent, thereby going against the goal of meritocracy. Notably, nepotism can occur without the presence of the ingroup connection. Simply knowing that someone is favored because of one's connections is sufficient to elicit perceptions of nepotistic favoritism and unfairness (Padgett & Morris, 2005). That being said, admitting children of those who graduated or currently work in a university might not recruit the most qualified students, but it does strengthen ties between the family and the university.

On an individual level, those who believe in school meritocracy will be reluctant to support a nepotistic applicant, and may even refuse when pressured to do so. Conversely, those who do not believe in school meritocracy will be more accepting of supporting a nepotistic applicant (Wiederkehr, Bonnot, Krauth-Gruber, & Darnon, 2015). In this study, a scale to measure belief in school meritocracy (Wiederkehr et al., 2015) was included to use as a moderator for auxiliary analyses.

On a broader level, people tend to value meritocracy over nepotism overall, but value nepotism higher an in-group is involved. Given the differential pros and cons of meritocracy and nepotism, it is worth considering *when are* people more or less likely to support merit-based versus nepotistic-based applicants? What factors influence people's support for meritocratic applicants? And to what degree might people perceive others' competence differently if they discover nepotism is involved?

Enforced Consensus: Implications for Top-Down Agreement

What happens when a group of people feel forced to support an applicant? Research on the psychology of forced consensus shows that when there is public pressure to agree (i.e. top-down pressure), it works in the short-term publicly but can create divisiveness privately and ultimately backfire. In other words, leaving no room for negotiation works on the surface, but does not reflect a genuine consensus (and is often recognized as such by observers). For instance, Conway and Schaller (2005) had participants imagine they were in an important committee tasked with making a decision for a company. Notably, there was either pressure by the president to agree or there was not. Results show that when participants believed the whole committee was pressured to agree, this pressure for agreement backfired and they were *less* likely to support the President's decision. Participants who were not pressured, however, were more likely to agree with the President. In another study (Conway et al., 2009), participants were asked to write about a fraternity, but a member of the fraternity was either present or absent. Because participants were pressured to communicate positively about the fraternity when the member was present (as opposed to absent), participants publicly praised the fraternity in that context but spoke negatively about the fraternity in a different context. These two studies suggest that public pressure for agreement, which was intended to create a consensus, can ironically backfire and cause deviance instead. In the short-term, pressure for agreement can create artificial consensus; but in the long-term, it tends to backfire.

Why does forced consensus backfire? Mediation analyses suggest that the backfiring occurs due to both *reactance* (emotional component) and *informational contamination* (cognitive component; see Conway & Schaller, 2005; Conway et al., 2009; Conway et al., 2017; Conway & Repke, 2019). When people's freedom is threatened or removed, reactance occurs and people are motivated to restore their freedom by acting against the perceived pressure (Silvia, 2006). Examples of reactance include controlling parenting (e.g., the use of coercion and punishment), which backfires as it often causes children to want more autonomy. Similarly, movie ratings that limit adolescents from viewing adult movies backfire, as those movie ratings attract adolescents to these movies because of reactance (Varava & Quick, 2015). Thus, in line with prior research on forced consensus, when participants were forced to agree with the President or to speak highly of the fraternity, part of the backfiring occurs because they want to do the opposite to reassert their freedom (Conway & Schaller, 2005; Conway et al., 2009).

Apart from reactance, informational contamination also explains why forced consensus backfires (Conway & Schaller, 2005; Conway et al., 2009; Conway et al., 2017; Conway & Repke, 2019). The context behind how information is communicated influences how we evaluate the veracity of other's opinions (Newtson & Czerlinsky, 1974), such that the information presented is discounted if the audience perceives the information as inauthentic, believe the consensus is artificially created, or that the consensus is reflective of some political agenda (Conway et al., 2017). As an example, consumers of science

may find research conducted by liberals specious if it seems reflective of some leftist agenda (see Chan et al., 2018). For example, conservatives tend to ignore or downplay research that suggests that disruptive patterns of climate change are due to human activity (see Campbell & Kay, 2014) and awareness of top-down pressures can cause people on both sides of the political spectrum to oppose ecologically-friendly policies they might otherwise have supported (Conway & Repke, 2019). In contrast, liberals may deny psychology research findings that go against their core values (e.g. egalitarianism, social justice) if they think the scientific findings (e.g. findings from evolutionary psychology) can be used for political agendas against their interests (Chan et al., 2018). It may be for these reasons that, at a large level, data reveals that governmental autocracies interfere with the connection between cultural variables such as collectivism and the laws that govern society (Chan & Conway, 2018).

Taken together, both reactance and informational contamination help explain the irony in perceived pressures; metaphorically bludgeoning people with psychological force often works in the short term but fails in the long term. Because of this, pressure to agree should be used cautiously because of the potentially backfiring and divisive effects. One way to think of pressure is like a potent drug that successfully eradicates a disease but brings about aversive long-term side effects.

This has two related consequences directly related to applicants for a university. (1) Pressure to support an applicant by powerful sources may cause short-term public agreement, but this consensus crumbles in the long-term

because it creates private disagreement. (2) Nepotistic applicants in general may cause a feeling of forced consensus, which might make them especially prone to backfiring effects.

Forced Consensus and Support for College Applicants: Eliciting Reactance and Informational Contamination

Specifically how might the psychology of forced consensus affect support for nepotistic versus meritocratic applicants? While reactance and informational contamination are both elicited through forced consensus and they often predict similar backfiring effects, the two components differ quite significantly as well (see Chan & Conway, under review; Conway et al., 2017).

Informational Contamination

Informational contamination occurs when an emerging or existing consensus is perceived to be artificial or fake. As such, informational contamination will likely be elicited when the consensus seems to be constructed by any top-down pressure (such as an authority figure's command) instead of reflecting the genuine beliefs of the persons comprising the consensus. All else being equal, perceiving that a consensus exists (e.g., the consensus for a committee to admit an applicant) will make other people believe that consensus is good or right (e.g., Conway et al., 2005; Conway et al., 2009; Conway et al., 2017; Conway & Repke, 2019). Informational contamination is the process by which that belief in the "goodness" of the consensus is eroded. Since informational contamination only occurs when group consensus is present (and does not operate for private communications directed only at an individual),

participants may publicly support an applicant when pressured to, but that same pressure may cause them to privately perceive the applicant as incompetent because they discount the emerging consensus as artificial.

While many are under the impression that students who attend a top school are admitted through stellar qualifications, students who are admitted via personal connections are often thought to be unfit because the image of meritocracy is contaminated: people will discount any consensus related to meritocracy when nepotism is also involved, as evidenced by the college admissions bribery scandal. Indeed, it is likely for this reason that students admitted via legacy programs may avoid divulging how they got the position (Harris, 2012). Thus, awareness that an applicant was admitted due to nepotism may create informational contamination of any emergent consensus. And this may be especially so if an authority figure in a university (e.g. President, provost, dean, department chair) wants to recruit his or her child into the same university and specifically orders people to accept that student. Pointing out the nepotistic connection may privately backfire (even if it causes public compliance) because the admissions staff may think the admissions "consensus" only reflects the nepotistic order and not the child's competence.

Reactance

While both reactance and informational contamination can operate on a group level, reactance can occur regardless of what the group believes in. Individuals should experience reactance when they are forced to support any applicant, regardless if the applicant is meritocratic or nepotistic. When people

are forced to support any applicant, they may – even if they still publicly support the applicant – privately refuse to reassert their freedom. As such, pressure to publicly support any applicant should elicit reactance, which in turn decreases *private* endorsement of that applicant.

Informational Contamination Versus Reactance in Admissions

Given these differences between reactance and informational contamination, pressure to support any applicant should elicit reactance regardless of what the group believes in because one's choice to support (or not support) the applicant is taken away. By extension, no pressure to agree would likely result in no reactance. As such, nepotism by itself does not elicit reactance when there is no pressure to support that applicant.

Like reactance, informational contamination will also be affected by pressure. However, unlike reactance, informational contamination should be elicited when the group supports a nepotistic applicant (as opposed to supporting a meritocratic applicant). Nepotistic applicants elicit informational contamination, which in turn drives down public and private support for the applicant when there is no pressure. This is because individual admission counselors presumably want to recruit the most qualified applicants, so seeing the group support an applicant that is not the most qualified contaminates this goal. This contamination is exacerbated if there is explicit pressure to support a nepotistic applicant. When there is pressure, people would publicly support the nepotistic applicant, but privately resent doing so.

When there is top-down pressure to support a nepotistic applicant, the consensus will likely be perceived as inauthentic and elicit informational contamination on a group level. This top-down pressure also elicits reactance on an individual level as one's freedom to support the applicant is removed. Consequently, both informational contamination and reactance would push participants to publicly endorse the nepotistic applicant because of the pressure to agree, but privately not support the applicant.

The Current Research

Previous research has found that a third party (i.e. someone who does not know the applicant) would likely to support meritocracy over nepotism as the default method of recruitment. However, no research has, to my knowledge, examined how forced consensus affects the perception of meritocratic and nepotistic applicants. Specifically, no research has experimentally tested if explicit pressure to support a nepotistic applicant may backfire. This study aims to fill that gap by examining the potential irony where people want to recruit their family or friends, but pressuring others to do so may backfire. Thus, it may be wise for those who want to recruit a family member to withhold pressure.

In the present study, we examine how participants – taking the role as an admissions counselor on an admissions committee that decides which students to admit to an elite university in the U.S. – perceive four types of applicants: meritocratic, nepotistic, both meritocratic and nepotistic, and neither meritocratic or nepotistic. Each participant will be randomly assigned to one of four types of applicants. Further, we manipulate whether participants are pressured to support

the applicant, and measure if this pressure backfires via reactance and informational contamination.

Hypotheses

Since I expect a different pattern of results for public and private endorsement measures, I discuss hypotheses for public and private endorsement of the applicant separately.

Hypotheses Related to Public Endorsement.

H1: There will be a main effect of pressure to support the President's favorite applicant, such that it increases public endorsement.

H2: There will be a nepotism x pressure interaction on public endorsement, such that nepotism increases public endorsement if there is pressure, but shows a weaker effect if there is no pressure.

Hypotheses Related to Private Endorsement Ratings

H3: There will be a main effect of pressure to support the President's favorite applicant, such that it decreases private endorsement ratings.

H3a: Pressure to support an applicant will decrease private endorsement (H3) indirectly via reactance for all applicants.

H3b. Pressure to support an applicant will decrease private endorsement ratings (H3) indirectly via information contamination, but only for nepotistic applicants.

H4: There will be a main effect of nepotism on private endorsement ratings, such that nepotistic applicant decrease private endorsement ratings.

H5: There will be a nepotism x pressure interaction on private endorsement ratings, such that nepotistic applicants decrease private endorsement ratings, but this drop will be larger when there is pressure.

Method

Power Estimation

Based on prior research on the use of pressure to create an artificial consensus (Conway & Schaller, 2005; Conway et al., 2009; Conway et al., 2017), we expect moderate effect sizes. Power analyses revealed that an *N* of 126 was required for a projected moderate effect size of $f^2 = .25$ and power = .80.

Participants

205 U.S. participants were recruited via Amazon's Mechanical Turk. We opted for *Mechanical Turk* because of previous validation as a representative sample for research relevant to politics (see e.g., Clifford, Jewell, & Waggoner, 2015; Conway, Houck, Gornick, & Repke, 2017; Conway & McFarland, in press) and because it generally shows similar results as other samples (see, for example, Conway et al., 2017; Houck, Conway, & Repke, 2014). We excluded 31 participants because they did not read the vignettes for at least ten seconds, leaving a total of 174 participants.[1] Despite this reduced sample, there were robust effects. Participants ranged from 18 to 69 years old ($M = 38.9$, $SD = 11.8$). Gender distribution was fairly evenly split (54.2% male, 45.8% female).

Independent Variables

[1] A timer was attached to all eight vignettes on the Qualtrics survey that is linked to Mechanical Turk, which allowed me to see how long each participant read each vignette. Participants did not see this timer.

Each participant read a scenario modeled after previous work on pressured agreement in other domains (Chan & Conway, under review; Conway & Schaller, 2005; Conway et al., 2009; Conway & Repke, 2019). In these scenarios, they were asked to imagine themselves as an admissions staff who works in an admissions committee at an elite university tasked with choosing a ‘Presidential scholar' – one incoming first-year student who will have all tuition and expenses waived. The scenarios varied on three variables.

Pressure to Support Applicant Manipulation. The President of the university either tells the admissions committee who his favorite applicant is and pressures the committee to support the applicant chosen by the President, or the President simply ‘checks in’ on how the committee is doing and tells the committee how the Presidential Scholar is chosen is entirely up to the committee. In this No Pressure condition, he tells the committee he has no favorite applicant and leaves the room. In both conditions, after some deliberation, other members of the committee agree on a chosen applicant.

Meritocratic Manipulation. The applicant is depicted as either being highly qualified or relatively average.

Nepotistic Manipulation. The applicant is depicted as either being the child of the President or another typical student.

All eight versions of the scenarios in this 2 (Pressure) X 2 (Meritocracy) X 2 (Nepotism) design are listed in Appendix A. All vignettes are approximately equal in length and each participant will be randomly assigned to read one version.

Dependent Measures

After participants read their assigned vignette, they were asked to complete the following measures in this order.

Public Endorsement. Public endorsement was measured with the following item adapted from prior work (Conway et al., 2009; 2017): “In the scenario, if I had to publicly voice my opinion of applicant A out loud to everyone on the admissions committee, I would publicly endorse this applicant.” Participants responded on a 7-point scale (1 = strongly disagree, 7 = strongly agree).

Private Endorsement. Private endorsement was measured with the following items adapted from prior work (Conway et al., 2009; 2017). The items read “In the scenario, if my opinions about applicant A were kept only to myself, I would privately endorse applicant A” and “In the scenario, I privately believe that applicant A is highly competent and deserves to be the Presidential scholar – no matter what I might say publicly.” Participants responded on a 7-point scale (1 = strongly disagree, 7 = strongly agree). This scale demonstrated high reliability, $\alpha = .87$.

Proposed Mediators

Informational Contamination. Participants completed a 3-item scale that measures their informational contamination in the context of the scenario (adapted from Conway & Schaller, 2005; Conway et al., 2009; Conway & Repke, 2019). Items were “In the scenario, I believe that support for applicant A is part of a scheme to help the applicant overcome the strenuous admission process”

and “In the scenario, I would distrust support for applicant A because I assume it is reflective of some agenda” and “In the scenario, I would distrust admission procedures created by the President because I assume it is reflective of some agenda.” Participants responded on a 7-point scale (1 = strongly disagree, 7 = strongly agree). This scale demonstrated high reliability, α = .84.

Reactance. Participants completed a 3-item scale that measures their reactance in the context of the scenario (adapted from Conway et al., 2005; Conway et al., 2009; Conway et al., 2017). Items were “In the scenario, I felt that there was pressure to support applicant A, and that aggravated me” and “In the scenario, I felt that there was pressure to support applicant A, which makes me want to not support the applicant” and “In the scenario, expressed support for applicant A makes me feel as if I should not support applicant A – just to show that I have the right to make up my own mind.” Participants responded on a 5-point scale (1 = strongly disagree, 5 = strongly agree). This scale demonstrated high reliability, α = .83.

Proposed Moderator

Belief in school meritocracy scale. Participants completed an 8-item belief in merit scale (Wiederkehr et al., 2015). Sample items were “At school, students who obtain poor grades are those who have not worked enough” and “at school, students who obtain good grades are those who have worked hard.” Participants responded on a 7-point scale (1 = strongly disagree, 5 = strongly agree). This scale demonstrated high reliability, α = .86. The full scale is in Appendix B.

Perceived Scenario Realism

Since this is a scenario study, we included two items that asked participants how real can they imagine the scenario as a proxy for internal validity. Items were “how realistic do you believe the scenario you just read about college admissions was?” (1 = not realistic at all, 9 = very realistic) and “In your own life, how close do you think the scenarios are to your own real-life experiences that you either have had or would be likely to have?” (1 = not close at all, 9 = very close). This scale demonstrated adequate reliability, α = .70.

Results

Primary Analyses

Separate 2 (Pressure to agree: yes vs. no) x 2 (Meritocratic: yes vs. no) x 2 (Nepotistic: yes vs. no) factorial ANOVAs were conducted to examine the effect of the IVs on our two dependent measures: public endorsement and private endorsement.

In terms of public endorsement, there was a main effect of meritocracy, $F(1,165) = 43.98$, $p < .001$, $\eta p^2 = .21$. Meritocracy increased public endorsement (meritocracy $M = 5.35$ vs. no meritocracy $M = 3.62$). There was also a main effect of nepotism, $F(1,165) = 9.11$, $p = .003$, $\eta p^2 = .05$; descriptive results indicated that nepotism decreased public endorsement (nepotistic $M = 4.09$ vs. not nepotistic $M = 4.85$). Inconsistent with H1, there was no main effect of pressure, $F(1,165) = 1.60$, $p = .21$, $\eta p^2 = .01$ (pressure $M = 4.36$ vs. no pressure $M = 4.60$). Inconsistent with H2, there was no pressure x nepotism interaction, $F(1,165) = 1.52$, $p = .22$, $\eta p^2 = 01$. No other interactions reached

significance. Figure 1 displays the means for public endorsement.

For private endorsement, there similarly was a main effect of meritocracy, $F(1, 166) = 110.17$, $p < .001$, $\eta p^2 = .40$. As expected, meritocracy increased private endorsement (meritocracy $M = 5.28$ vs. no meritocracy $M = 2.87$). Consistent with H4, there was also a main effect of nepotism, $F(1,166) = 19.28$, $p < .001$, $\eta p^2 = .10$; descriptive results indicated that nepotism decreased private endorsement (nepotistic $M = 3.56$ vs. not nepotistic $M = 4.55$). Inconsistent with H3, there was no main effect of pressure, $F(1,166) = 1.50$, $p = .23$, $\eta p^2 = .01$ (pressure $M = 4.00$ vs. no pressure $M = 4.12$). Inconsistent with H5, there was no nepotism x pressure interaction, $F(1,166) = .02$, $p = .903$, $\eta p^2 = .00$. No other main effects or interactions reached significance. Figure 2 displays the means for private endorsement.

As suggested above, no main effects or interactions occurred for the pressure manipulation on both dependent variables.

Mean Patterns for Mediators

Although reactance and informational contamination were quite strongly correlated ($r = .64$, $p < .001$), it was expected that reactance and informational contamination would differentially affect meritocratic and nepotistic applicants. As such, separate 2 (Pressure to agree: yes vs. no) x 2 (Meritocratic: yes vs. no) x 2 (Nepotistic: yes vs. no) factorial ANOVAs were conducted with reactance and informational contamination as the DVs.

In line with our predictions, there was a main effect of pressure on reactance, $F(1, 166) = 28.24$, $p < .001$, $\eta p^2 = .15$, such that increased pressure

led to increased reactance. There was main effect of meritocracy, $F(1, 166) = 31.30$, $p < .001$, $\eta p^2 = .16$, such that meritocracy decreased reactance. There was a main effect of nepotism, $F(1, 166) = 24.17$, $p < .001$, $\eta p^2 = .13$, such that nepotism increased reactance. Notably, these main effects were qualified by a pressure x meritocracy interaction, $F(1, 166) = .5.06$, $p = .026$, $\eta p^2 = .03$, that showed although pressure increased reactance, this effect was weaker when the applicant was meritocratic. Additionally, there was a weak but significant meritocracy x nepotism interaction, $F(1, 166) =. 4.20$, $p = .042$, $\eta p^2 = .03$, whereby applicants high in meritocracy showed a weak relationship between reactance and nepotism, but applicants low in meritocracy showed a strong relationship between reactance and nepotism. No other interactions reached significance. Figure 3 displays the means for reactance.

Also consistent with predictions, when informational contamination was the DV, there was main effect of meritocracy, $F(1, 166) = 40.53$, $p < .001$, $\eta p^2 = .20$, such that meritocracy decreased informational contamination. There was also a main effect of nepotism, $F(1, 166) = 11.28$, $p = .001$, $\eta p^2 = .06$, such that nepotism increased informational contamination. No other main effects or interactions reached significance. Figure 4 displays the means for informational contamination.

The effect sizes reported are consistent or even larger when compared to prior work that examined the psychology of forced consensus. For instance, Conway et al. (2017) reported $\eta p^2 = .16$ for reactance, and Conway et al. (2009) reported $\eta p^2 = .02$ for informational contamination.

Mediational Analyses

To examine the hypothesized X→M→Y paths where the mediating variables are reactance and informational contamination, I followed recommended current practices for testing indirect effects. Specifically, I used the PROCESS macro (Hayes, 2018; model 4) to compute both normal tests of indirect effects and bootstrapped confidence intervals (using 5000 samples) for each X → Y indirect effect with reactance or informational contamination as the mediator variable. In total, twelve separate mediation analyses were conducted to examine the effect of the three IVs (X) on the two DVs (Y) via two mediator variables (M). Importantly, the lack of direct X → Y relationships do not invalidate indirect effects (Darlington & Hayes, 2017). It is possible that pressure did not directly influence endorsement, but did elicit reactance that leads to decreased endorsement – both publicly and privately.

H3a was tested by examining indirect effects of pressure on public and private endorsement via reactance. As predicted, pressure significantly increased reactance, which in turn significantly decreased both public endorsement (indirect effect $p < .05$) and private endorsement (indirect effect $p < .05$). H3b was tested by examining indirect effects of pressure on public and private endorsement via informational contamination (additional analyses excluded non-nepotistic applicants; $n = 88$). Contrary to predictions, there were no significant indirect effects between pressure and public endorsement ($p = .50$), and pressure and private endorsement ($p = .49$)

Additional mediation analyses revealed that reactance partially mediated the effect of meritocracy on both public endorsement (indirect effect = .24, *p*'s < .05) and private endorsement (indirect effect = .36, *p*'s < .05). Likewise, reactance partially mediated the effect of nepotism on both public endorsement (indirect effect = -.30, *p*'s < .05) and private endorsement (indirect effect = -.44, *p*'s < .05).

Similarly, informational contamination partially mediated the effect of meritocracy on both public endorsement (indirect effect = .55, *p*'s < .05) and private endorsement (indirect effect = .56, *p*'s < .05). Informational contamination also partially mediated the effect of nepotism on both public endorsement (indirect effect = -.36, *p*'s < .05) and private endorsement (indirect effect = -.42, *p*'s < .05). Tables 1 and 2 reports all mediation analyses.

Moderation Analyses

To analyze whether our effects are stronger for participants high in belief in school meritocracy, moderation analyses were conducted. I followed standard current practices for testing the moderating effect of a continuous variable on the relationship between two other continuous variables via simultaneous regression (Hayes, 2018). Specifically, I used the PROCESS macro (Hayes, 2018; model 1) to examine if pressure and outcome variables (public endorsement and private endorsement) were altered at different levels of belief in school meritocracy. Results revealed null effects, suggesting that our manipulations did not differentially impact those high or low in belief in school meritocracy.

Scenario Realism

Overall, participants rated the scenario to be moderately realistic (*M* = 5.51, *SD* = 1.93). The key patterns and results were essentially identical, both descriptively and inferentially, when analyses were conducted on only participants who reported above the midpoint on scenario realism (4.5 on a 1-9 scale; *n* = 130).

Discussion

As a whole, the results provided mixed support of our hypotheses. Contrary to predictions, the pressure manipulation did not directly (but did indirectly, through reactance) impact public or private endorsement. Below, I discuss some of the key interpretational difficulties posed by these data, as well as implications for these results.

Why Public and Private Endorsement Showed Similar Patterns

I expected private and public endorsement to show different patterns, but this did not occur. Why? Part of the reason might have to do with how pressure affected endorsement for the President's favorite applicant. As a whole (i.e. collapsing across different types of applicants), the presence of reactance suggests that pressure did affect the participant at an individual level, but the relative lack of informational contamination suggests that pressure did not – from the participants' eyes - influence the committee as a whole. As a result, participants may be less influenced by pressure because the committee was also not influenced the President's command. Consequently, participants were not compelled to display a different behavior under pressure because others seem to resist said pressure. Failing to comply with the President's command did not

seem as threatening. This in turn induced participants to endorse the applicants – publicly and privately – in a similar pattern.

Why Pressure Manipulation Showed No Effects: Cognitive Dissonance Theory

Alternatively, the pressure manipulation yielded no direct effects possibly because of cognitive dissonance, which refers to an uncomfortable state of mind that arises when one's actions and beliefs are not aligned (Festinger & Carlsmith, 1959). Past research has found that westerners are motivated to align their actions and beliefs because of high individualism and the desire to have a consistent self-concept across various contexts (Heine & Lehman, 1997; McLeod, 2008). In this case, participants may experience cognitive dissonance when the applicant they are forced to support (i.e. action) is not aligned with their views on the meritocracy and nepotism (i.e. belief).

There is good reason to suggest that the participants' beliefs of meritocracy and nepotism were highly ingrained in their western cultural worldview. Since meritocracy is a core feature of the American Dream, whereby high status reflects hard work and individual merit (McCoy & Major, 2007; Fiske, 2011), people who value meritocracy associate high status with hard work. Therefore, it would be unfair for people to have high status *without* putting in the effort, as reflected in some cases of nepotism.

Given these perceptions, pressure to support a non-meritocratic applicant may fail because of cognitive dissonance (i.e. when actions and beliefs do not align). That is, supporting non-meritocratic applicants (action) directly goes

against the meritocratic ideal (belief). To align this discrepancy in one's action and belief, participants either alter their actions to align with the belief (i.e. support the meritocratic applicant regardless of pressure) or alter their beliefs to align with the action (i.e. support the non-meritocratic applicant because of pressure and tacitly forgo the meritocratic ideal). Our data suggests that participants largely opted for the former option: they supported the meritocratic applicant and rejected the non-meritocratic applicant, even when forcefully urged to do otherwise.

Despite the lack of pressure manipulation working, theoretically meaningful indirect effects of X→Y via M can occur even without direct X→Y relationships. As predicted, pressure did elicit reactance, the same psychological mechanism behind why (as we shall see below) people support meritocracy and oppose nepotism.

Effects of Reactance and Informational Contamination

Pressure manipulation aside, meritocracy was associated with low reactance and low informational contamination. As predicted, low scores on these two variables led to increased endorsement ratings. In contrast, nepotism was associated with high reactance and high informational contamination. As expected, high scores on these two variables led to decreased endorsement ratings. These findings can be explained by the significant indirect effects of meritocracy and nepotism on both public and private endorsement. But what do these indirect relationships, mediated by reactance and informational contamination, suggest on a practical level?

The Tension Between Meritocracy and Nepotism

There are many legitimate benefits of meritocracy (Ledgerwood et al., 2011). Indeed, meritocracy has been shown to increase motivation and hard work and is often rightfully attributed to success and honesty (Dahlström, Lapuente, & Teorell, 2012; Egeberg, Gornitzka, & Trondol, 2017). As such, people may be less susceptible to reactance when supporting a meritocratic applicant since they were presumably going to support that applicant anyway. Additionally, participants likely experience little informational contamination when supporting a meritocratic applicant because meritocracy provides little, if any, cues of some ulterior agenda that discounts the admission committee's consensus. As a result, participants reported high endorsement (both public and private) for the meritocratic applicant.

In contrast, a nepotistic applicant elicits reactance because participants do not want to support someone not worthy of being the Presidential scholar. Indeed, it is possible that nepotistic applicants elicit implicit pressure because there might be negative consequences for not supporting the beneficiary of nepotism. This form of implied pressure also elicits reactance, as participants' freedom to support (or not support) the applicant is implicitly removed. Participants also experience informational contamination because it does not seem fair to support an applicant who has connections but no merit. Thus, it comes as no surprise that the committee's unanimous support for the nepotistic applicant led participants to perceive the support to be reflective of some agenda. As a result, people reported low endorsement (both public and private) for the

nepotistic applicant.

Taken together, people seem to publicly and privately disfavor nepotistic applicants regardless of pressure. As such, people should be aware that nepotistic hiring comes with psychological baggage of reactance and informational contamination. This could theoretically put many people in a tricky spot. People often want to recruit their close ones into their own workplace (e.g. organization, teams, or schools) and fully believe that their close ones are a great fit for the position, but doing so can backfire if others know about the connection. Yet, concealing the connection can also backfire in the long term since it can be perceived as hiding a conflict of interest. One way to solve this issue is to have recruiters (which may include the authority figure) convince people in the organization that the nepotistic applicant was hired not solely due to the connection; the recruiting process was the same for everyone including nepotistic applicant and the connection was merely a means for getting one's 'foot in the door'. Another related way is to highlight nepotistic applicants' merit to offset reactance and informational contamination elicited by nepotism.

Limitations of the Present Work

Like all studies, certain limitations exist in our study. First, we used hypothetical scenarios that asks people to imagine being in an admissions committee and how they felt if they are pressured (or not pressured) to support a particular type of applicant. Though scenario studies are commonly-used for research and have many advantages (e.g., Conway et al., 2005; 2009; Conway & Repke, 2019), picturing a scenario is nonetheless different than the reality of

that scenario. That being said, this study's sample as a whole rated the realism of the scenario to be above average (i.e. above 4.5 on a 1-9 scale), which suggests that they could imagine the scenario relatively well. Secondly, our approach to meritocracy and nepotism was rather simple. We opted for a clear-cut 'yes vs. no' paradigm and only offered participants the choice between applicant A or applicant B for the purposes of experimental manipulation. In reality, an admissions committee may have to narrow down among dozens of finalists without a clear indication of which applicant is the most meritocratic, and there may also be multiple nepotistic applicants. Thirdly, we cannot confidently say that our results would hold across multiple recruitment contexts. This study utilized a U.S. sample, so these effects would not necessarily occur in the same manner in other countries. Further, group dynamics of every admission committee can be highly complex and variations in status and power can influence who gets recruited. Finally, the independent variable of 'pressure' did not work: It had no direct statistically-significant impact on participant public and private endorsement. Pressure was captured in the vignette when the authority figure "forcefully urges the committee to support his chosen applicant" and can be interpreted as too abstract (i.e. no concrete threats or consequences were laid out), such that participants were not compelled to publicly endorse the President's favorite applicant. Alternatively, it is plausible that pressure did not make a difference because of the engrained perceptions of meritocratic and nepotistic applicants.

Future Directions

This study revealed tensions between meritocratic and nepotistic recruitment methods. But there are other approaches to recruitment. Namely, universities (or other entities that recruit) may recruit to increase underrepresented groups (i.e. affirmative action, diversity programs), recruit people with certain skillsets not commonly associated with meritocracy (e.g. student athletes), or even intentionally recruit those with minimal qualifications and experience (e.g. summer internships). These recruitment methods each have their own benefits and drawbacks, so future research could shed light on the tensions between these recruitment methods. It is likely that reactance and informational contamination will be elicited, but these psychological mechanisms should theoretically operate differently within each recruitment method.

Additionally, future research could examine what occurs when there is pressure to *oppose* a specific type of applicant. For instance, pressure (from an authority figure) to oppose a meritocratic applicant may, unlike pressure to *support,* elicit both reactance and informational contamination, since the participant would like to support the meritocratic applicant and seeing the committee oppose the most qualified applicant may be reflective of some agenda. In contrast, pressure to oppose a nepotistic applicant may, unlike the current study, yield little reactance or informational contamination.

Concluding Remarks

Although the present results do not draw a direct relationship between pressure and endorsement, pressure indirectly elicits reactance, the same mechanism that is partly responsible for why people tend to favor meritocratic

applicants but disfavor nepotistic applicants. There may be good reason for nepotistic recruitment, but it comes with the psychological baggage of reactance and informational contamination.

Table 1

The impact of reactance: Simple and indirect effects of pressure, meritocracy, and nepotism on public endorsement and private endorsement

		Indirect Effect Via Reactance		
	Simple Effect	Indirect Effect	Indirect Lower CI	Indirect Upper CI
Pressure/Public Endorse	.14	-.37*	.16	.70
Pressure/Private Endorse	.43	-.55*	.27	.91
Meritocracy on public endorsement	1.48*	.24*	-.54	-.05
Meritocracy on private endorsement	2.06*	.36*	-.64	-.17
Nepotism on public endorsement	-.46*	-.30*	.11	.61
Nepotism private endorsement	-.55*	-.44*	.20	.77

Note: $N = 174$ *$p < .05$; Confidence intervals based on 5000 bootstrapped samples.

Table 2

The impact of informational contamination: Simple and indirect effects of pressure, meritocracy, and nepotism on public endorsement and private endorsement

	Indirect Effect Via Information Contamination			
	Simple Effect	Indirect Effect	Indirect Lower CI	Indirect Upper CI
Pressure/Public Endorse (whole)	-.23	-.17	-.08	-.46
Pressure/Private Endorse (whole)	-.13	-.20	-.10	-.54
Pressure/Public Endorse (half)^	-.53	-.15	-.67	-.50
Pressure/Private Endorse (half)^	-.09	-.17	-.69	-.49
Meritocracy on public endorsement	.1.18*	.55*	-.95	-.25
Meritocracy on private endorsement	1.86*	.56*	-.93	-.28
Nepotism on public endorsement	-.40*	-.36*	.11	.72
Nepotism on private endorsement	-.58*	-.42*	.14	.76

Note: N = 174, ^n = 88 (analyses excluded non-nepotistic applicants) *p < .05;

Confidence intervals based on 5000 bootstrapped samples.

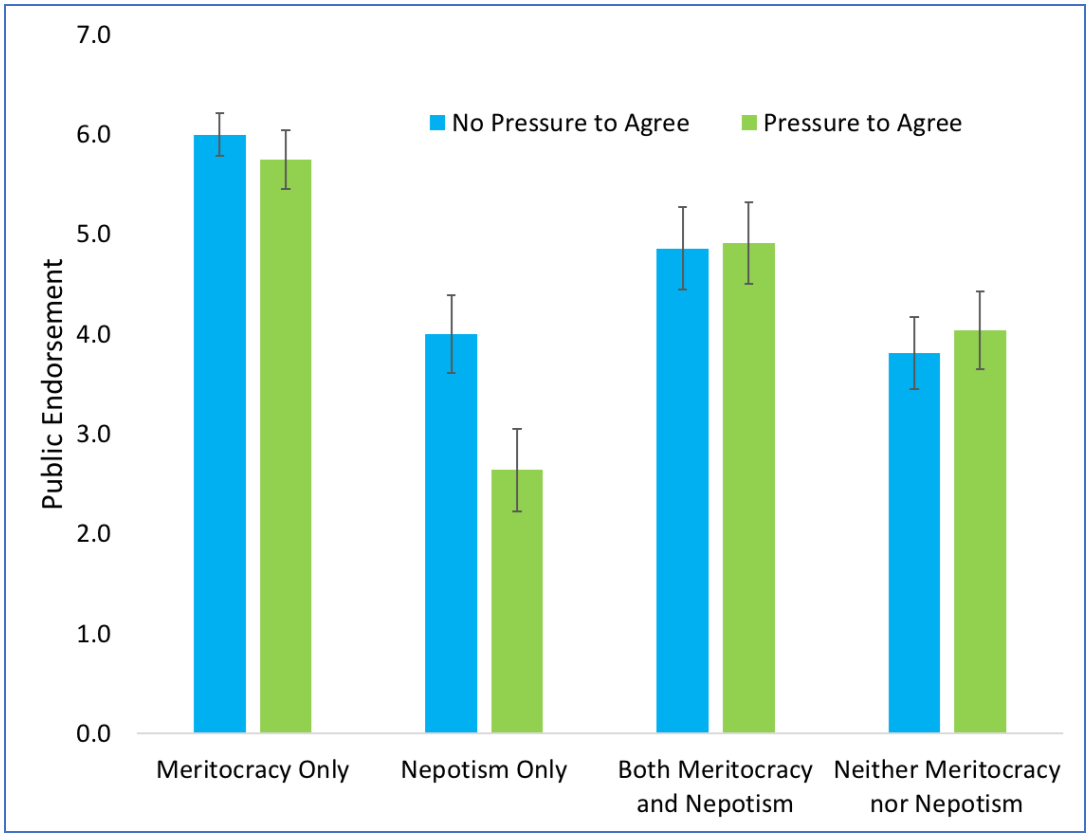

Figure 1. Effect of Pressure, Meritocracy, and Nepotism on Public Endorsement. Error bars represent standard error of the mean.

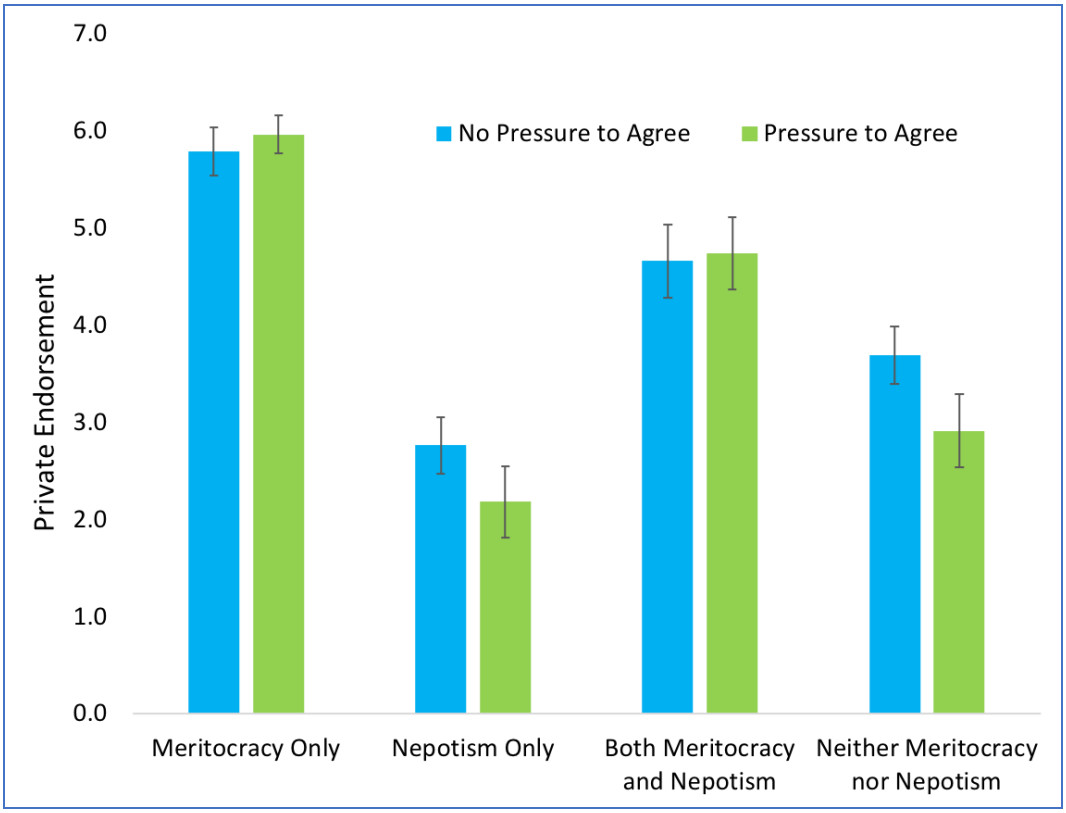

Figure 2. Effect of Pressure, Meritocracy, and Nepotism on Private Endorsement. Error bars represent standard error of the mean.

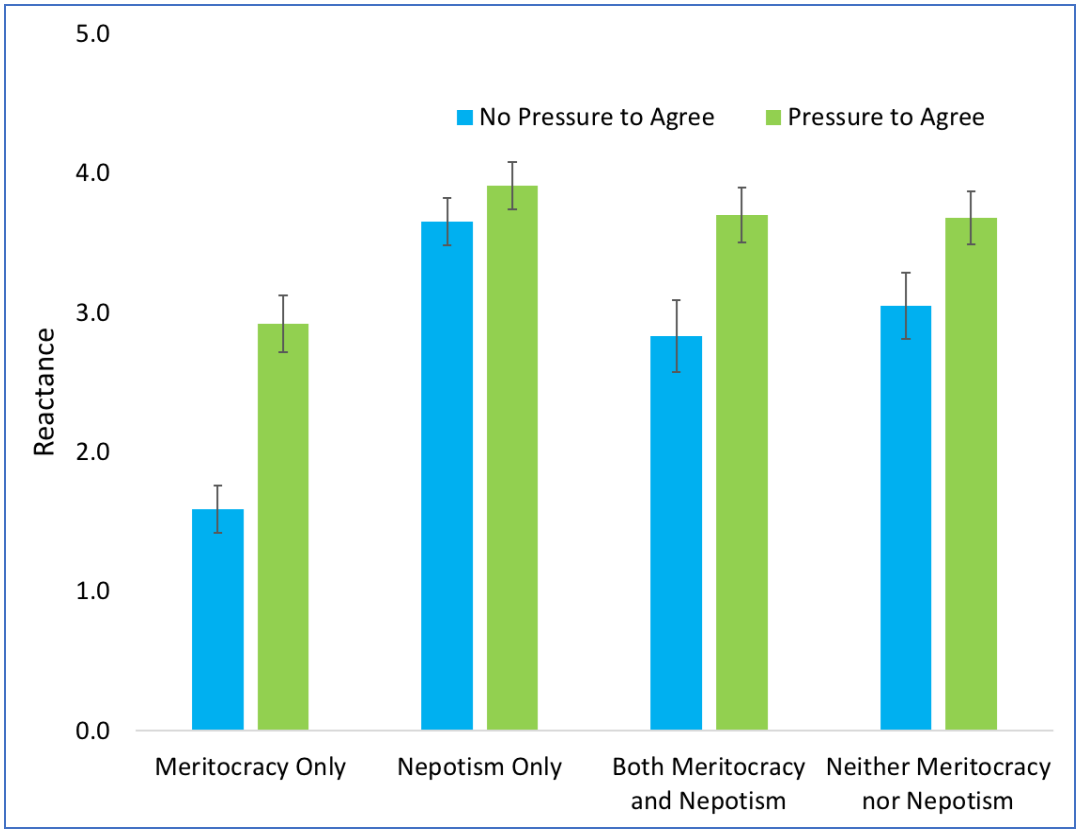

Figure 3. Effect of Pressure, Meritocracy, and Nepotism on Reactance.

Error bars represent standard error of the mean.

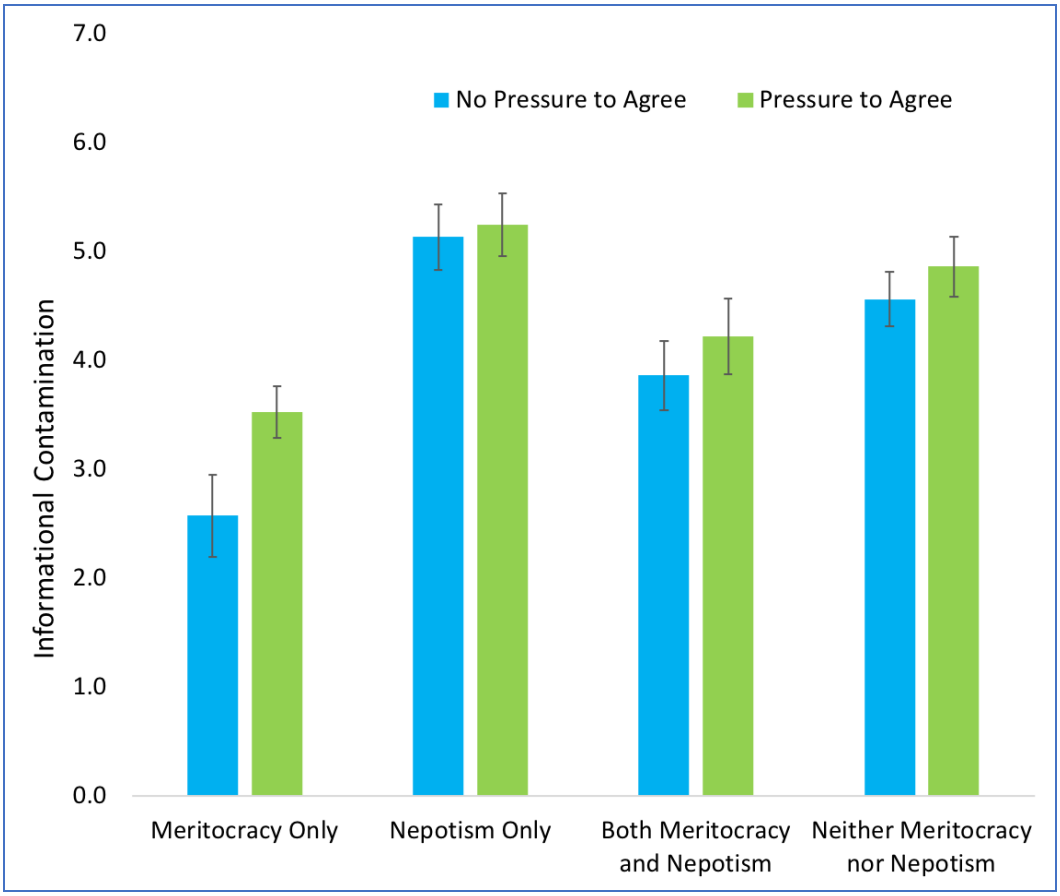

Figure 4. Effect of Pressure, Meritocracy, and Nepotism on Informational Contamination. Error bars represent standard error of the mean.

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Appendix A:

All Eight Vignettes

Each participant only sees 1 vignette. There are a total of 8 vignettes.

IV1: Pressure to Support (yes vs. no)

IV2: Meritocratic Applicant (yes vs. no)

IV3: Nepotistic Applicant (yes vs. no)

All vignettes have the common opening, but different endings.

Common Opening

Imagine that you are working in an elite university and you are a member of a committee responsible for admitting incoming first-year students. This committee includes the President of the university and ten other people from various departments. One day, you and your committee are working with the university President to decide who should be the next Presidential Scholar, awarded to one phenomenal incoming first-year student who will have all tuition and expenses waived.

Ending: Yes Pressure / Yes Meritocratic/ Yes Nepotistic

Administration has narrowed down the committee's choices to two finalists: Applicant A and Applicant B. At the key meeting, the President tells the entire committee that he favors applicant A and forcefully urges the committee to support his chosen applicant. When the final vote occurs, every single person on the committee -- all ten members -- unanimously agree that applicant A should get the award. Upon additional inspection of applicant A, you realize that applicant A is highly qualified in many respects, and that applicant A is the child of the President. In contrast, applicant B is quite average in many respects. It is now time to decide who should be the next Presidential Scholar.

Ending: Yes Pressure / Yes Meritocratic / No Nepotistic

Administration has narrowed down the committee's choices to two finalists: Applicant A and Applicant B. At the key meeting, the President tells the entire committee that he favors applicant A and forcefully urges the committee to support his chosen applicant. When the final vote occurs, every single person on the committee -- all ten members -- unanimously agree that applicant A should get the award. Upon additional inspection of applicant A, you realize that the applicant is highly qualified in many respects, and that applicant A has no previous ties to anyone in the university. In contrast, applicant B is quite average in many respects. It is now time to decide who should be the next Presidential Scholar.

Ending: Yes Pressure / No Meritocratic / Yes Nepotistic

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Ending: Yes Pressure / No Meritocratic / No Nepotistic

Administration has narrowed down the committee's choices to two finalists: Applicant A and Applicant B. At the key meeting, the President tells the entire committee that he favors applicant A and forcefully urges the committee to support his chosen applicant. When the final vote occurs, every single person on the committee -- all ten members -- unanimously agree that applicant A should get the award. Upon additional inspection of

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Ending: No Pressure / Yes Meritocratic/ Yes Nepotistic

Administration has narrowed down the committee's choices to two finalists: Applicant A and Applicant B. At the key meeting, the President makes it clear that everyone in the committee has an equal say in choosing the Presidential Scholar. He tells the committee that he has no favorite applicant, and emphasizes that to ensure that everyone can voice their true opinions, the final vote will be anonymous so the end results could not be traced back to individual responses. When the final vote occurs, every single person on the committee -- all ten members -- unanimously agree that applicant A should get the award. Upon additional inspection of this chosen applicant, you realize that applicant A is highly qualified in many respects, and that applicant A is the child of the President. In contrast, applicant B is quite average in many respects. It is now time to decide who should be the next Presidential Scholar.

Ending: No Pressure / Yes Meritocratic / No Nepotistic

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in the university. In contrast, applicant B is highly qualified in many respects. It is now time to decide who should be the next Presidential Scholar.

Appendix B:

Belief in School Meritocracy Scale (Wiederkehr et al., 2015).

Participants respond on a 5-point scale, 1 = strongly disagree, 5 = strongly agree.

1. At school, when there is a will, there is a way.
2. Everyone has the same chances to succeed at school.
3. To succeed at school, one only has to work hard.
4. At school, students who obtain poor grades are those who have not worked enough.
5. At school, students are rewarded (they obtain good grades, praise) for their efforts.
6. At school, children obtain the grades they deserve.
7. At school, students who obtain good grades are those who have worked hard.
8. *Willingness is not always enough to succeed at school. (*Reverse-scored).