A social identity analysis of how pay inequality divides the workplace

Key words:

pay inequality, self-categorization, leadership, organizational identification, social identity approach

Word count:

Abstract: 147 words

Main text: 6,425 words

Appendices: 461 words

Notes: 313 words

References: 1,304 words

Figures: 76 words (4 Figures in total)

Tables: 274 words (3 Tables in total)

Abstract

The present research examines why organizations with more unequal pay structures have been found to be characterized by a range of negative workplace outcomes. Drawing on the social identity approach, we propose that higher pay disparity can increase the comparative fit of pay categories whereby the organizational "haves" (the highest-paid employees) and "have nots" (the lowest-paid employees) are more likely to be *categorized* into distinct social groups. In turn, this can lead to poorer organizational functioning. In two studies, a field survey (N = 413) and an experiment (N = 286), we found that higher pay inequality increased the comparative fit of pay categories, which, in turn, was associated with lower superordinate (organizational) identification, higher perceived workplace conflict, higher leader toxicity and lower perceptions of identity leadership (i.e., a leader who creates a sense of shared identity in the organization). Our research provides novel insights into how higher inequality affects employees' categorization processes thereby creating a psychological divide and contributing to organizational dysfunction.

A social identity analysis of how pay inequality divides the workplace

In 2011, the wave of Occupy Wall Street movements drew public attention to the role of large corporations in perpetuating and maintaining economic inequality. The iconic slogan “We are the 99%” captured the social identity of the protestors who were directing their discontentment towards the top one percent, the leaders of large corporations (CEOs and top executives) whose salary had increased over 1000% whilst wages of the typical worker grew by only 10% (i.e., from 1978 to 2019; Mishel & Kandra, 2020). This rise in pay inequality between the highest and lowest-paid workers is concerning because there is evidence that inequality is associated with a range of negative workplace outcomes, including reduced organizational identification and job satisfaction, less effective leadership and collaboration, and higher turnover intentions (Bloom, 1999; Conelly et al., 2016; Peters et al., 2019; Pfeffer & Langton, 1993; Shaw et al., 2002; Steffens et al., 2020). Yet, to date, there is little understanding of *why* higher organizational pay inequality may have these negative effects (Shaw et al., 2014).

In the present research, we draw on the social identity approach — which is comprised of self-categorization theory (Turner et al., 1987) and social identity theory (Tajfel & Turner, 1979) — to propose that higher pay disparity may do harm by creating a psychological divide within the organization. Specifically, we propose that higher pay disparity introduces divisions by making “pay” a fitting basis for *social categorization* whereby the highest-paid (e.g., the top 1%, CEOs, top managers) and the lowest-paid employees are seen as distinct social groups (i.e., enhanced perceptions of inter-group differences and intra-group similarities). We argue that such pay-based fragmentation can reinforce an “us” versus “them” dynamic and corrode a sense of unity and oneness within the larger organization. As a result, employees may *identify* less with the superordinate organizational group, experience higher levels of *workplace conflict* and perceive their (generally higher-paid) *leaders more negatively* (e.g., as engaging in more toxic behaviors and unable to create a sense of "us" in the organization). In the following sections, we will elaborate on our reasoning.

Self-Categorization Theory and Pay-Based Division

According to self-categorization theory, features of the broader social context shape the way people organize and categorize their social world (Turner et al., 1987). Of particular relevance is the principle of *comparative fit* which posits that categorization — the process of grouping people based on similarities or shared characteristics — is affected by the extent to which salient cues in the social context fit with known categories. Specifically, people are more likely to utilize a given category in a particular context if they perceive that individuals who are members of that category are more similar to one another (i.e., high intra-group similarity) while they perceive members of a different social category as more distinct (i.e., high inter-group difference; also know as the meta-contrast principle; Brown & Turner, 2002). In this way, comparative fit allows individuals to understand their social world by mapping pre-existing social categories (e.g., wealthy or poor) to properties of the social context (Hogg & Terry, 2000).

When applied to organizational pay inequality, we can expect that as inequality grows, and the difference between high and low-earners becomes more marked, then pay-based categories will become a more fitting basis for organizing the work environment (for a theoretical overview see Jetten et al., 2017; Platow et al., 2008; Putnam-Farr & Morewedge, 2020). In particular, with higher pay inequality, people will come to perceive employees from the highest and lowest-paid categories as more different but perceive greater similarity between employees within the same pay category, thus reinforcing the category distinction between the organizational "haves" and "have nots". There is a growing body of work which supports this possibility (Connor et al., 2020; for reviews, see Jetten et al., 2021; Platow et al., 2008; Tanjitpiyanond et al., 2021). For instance, in a series of archival and experimental studies, Peters et al. (2021) found that higher inequality was associated with the increased tendency for people to use wealth categories in language (e.g., books published in years of higher income inequality in the US and UK had more wealth-related words). This suggests that when income inequality is higher, it increases the importance of wealth in guiding how people categorize and understand their social world.

How Pay-Based Division Creates Organizational Dysfunction

There is reason to expect that pay-based social categorization would come at a cost to workplace functioning by undermining a sense of unity and oneness within the organization (Akerlof & Kranton, 2010; Steffens et al., 2019). According to social identity theorizing, when pay becomes a core basis for social categorization, not only does it highlight employees' perceived differences along pay lines (between colleagues, different departmental teams or professional roles), but it also diminishes their perceived similarities based on shared superordinate – organizational – identity (whether with colleagues or leaders; Peters et al., 2019; Platow et al., 2008; Steffens et al., 2019). Such categorization, in turn, can reduce the tendency for employees to identify as members of the organization or perceive one another as fellow in-group members who share the same identity and goals (Haslam et al., 2000). Instead, the categorization of colleagues into the "haves" (winners) or "have nots" (losers) – based on their level of pay and seniority – can trigger unhealthy social comparison and workplace competition on the basis of pay (Bratanova et al., 2019; Cheung & Lucas, 2016; Jetten et al., 2017; Kraus et al., 2017; Walasek & Brown, 2015, 2016, 2019). Importantly, such inter-group dynamics within the workplace are likely to undermine organizational performance as it pertains to the ability for employees to work collaboratively towards shared organizational goals.

Consistent with this reasoning, there is a body of work showing that higher pay inequality can fuel uncooperative workplace dynamics among lower-paid employees (e.g., production workers; Bloom, 1999; Pfeffer & Langton, 1993; Shaw, 2014; Siegal & Hambrick, 2005). For instance, Shaw et al. (2002) studied pipeline production workers in the US and found that higher pay inequality (e.g., greater differences in hourly pay rate of starting, middle and senior employees in the organization) was detrimental for employees' performance on collaborative tasks which required face-to-face interactions and joint participation. Along the same lines, Breza et al. (2018) found that workers who were randomly assigned to an unequal (versus equal) pay unit were less collaborative with their co-workers on cooperative games. In a subsequent survey, the workers also reported reduced social connection and willingness to engage in prosocial behaviors (e.g., to borrow, lend or give advice to others in general). There is also initial evidence that higher inequality can induce conflict between co-workers. In particular, an experiment by Cheng et al. (2021) found that participants who were assigned to imagine working in an organization with high (versus low) income inequality were more vigilant of colleagues who they suspected would undermine their work performance. These findings may reflect that employees in more unequal work settings are focussed on improving their own individual pay and prospects rather than cooperating with colleagues to meet shared goals (Bratanova et al., 2019).

Although the social identity perspective can explain the observed deficit in cooperation and greater proneness to conflict, there is limited work which has directly tested this hypothesis in the context of pay inequality. Here, we aim to test for the first time the role of comparative fit – the extent to which pay is used as a basis for social categorization – in explaining how higher pay inequality can create organizational dysfunction (see also Platow et al., 2008). In particular, we aim to unpack the proposition that the observed undermined sense of oneness (i.e., reduced superordinate organizational identification) and collaboration (i.e., increased proneness to conflict) in more unequal workplaces is due to higher inequality introducing divisions via pay-based social categorization.

Social identity theorizing also leads to the prediction that the comparative fit of pay would have significant implications for leadership. Top leaders, those who represent the organization and are in the position to set its goals, are likely to be categorized as the "other" who belong in a higher-paid category (e.g., the 1% as indicated by the Occupy movement). Such perceptions would be consequential for their ability to steer the organization. Specifically, according to social identity theory, leadership behavior is appraised differently depending on whether the leader is perceived as an in-group or an out-group member (e.g., Ellemers et al., 2004; Haslam et al., 2020). Leaders who are perceived to share the same identity with their followers – that is, perceived as an in-group member – are seen as more positive and charismatic, and are more likely to be endorsed and trusted by their followers (Hains et al., 1997, Hogg et al., 1998, Platow &

van Knippenberg, 2001, Platow et al., 2006). In other words, shared organizational identity breeds a better leader in the eyes of followers. In contrast, when leaders are perceived to be out-group members, their actions may be parsed as malign and not in the best interests of the group.

Consistent with this, a study by Steffens et al. (2020) provided evidence that when CEO pay was relatively high (versus low), people perceived the CEO as less charismatic and as unable to create a sense of "we" and "us" in the organization (i.e., identity leadership; Steffens et al., 2014). Importantly, their research also found that the negative impact of higher CEO pay on leadership perceptions was driven by the lack of shared identity between leaders and followers. However, it is important to note that Steffens et al. (2020) did not examine the degree of pay inequality or comparative fit of pay categories. Rather, they examined how well CEOs were paid, rather than how well they were paid relative to other members of their organizations (i.e., the degree of pay inequality). As such, this leaves us with some unanswered questions. In particular, from this research it is not clear how higher pay inequality may shape categorization processes which give rise to employees' negative perceptions of their leaders. Is it the case that higher pay inequality increases the fitness of pay as a basis of social categorization (i.e., comparative fit of pay categories) and thus create perceptions of leaders as a separate out-group in the organization? And, does this, in turn, create negative perceptions of the leaders as more toxic and less able to create a sense of shared identity in the organization? Answering this question is important to understand the applicability of the social identity approach to the study of pay inequality and to advance our current understanding of how specific psychological mechanism – that is, categorization – may contribute to why higher pay inequality can create organizational dysfunction.

The Present Research

In this paper, we aim to build on the social identity approach to organizational inequality. We examine whether inequality is associated with more dysfunctional workplace outcomes (as measured by their workplace perceptions, in Study 1, and expectations, in Study 2) because it makes pay a fitting basis for organizing the work environment. We also examine whether this, in turn, impairs superordinate identification, raises perceptions of workplace conflict and negative perceptions of leaders (e.g., perceptions of leader toxicity). [1]

We conducted two studies to test the role of the comparative fit of pay categories in explaining the effect of higher inequality on poorer workplace outcomes. [2] Study 1 was a field survey of participants' perceptions of pay inequality within their current workplace. Study 2 was an experimental study where participants were randomly assigned to imagine working in a fictitious organization with a high or low level of pay inequality. In this way, Study 2 builds upon Study 1 by unpacking whether manipulating levels of objective inequality (high or low in the fictional organization) would affect participants' perceptions of inequality and their expectations of different workplace outcomes.

Study 1

Method

Participants

We recruited 472 UK participants from Prolific.co with custom screening for participants who were working in large organizations (i.e., large private or publicly listed) and working full time. We chose large organizations to control for firm size as there is evidence that pay inequality increases with the size of the organization (Henderson & Frederickson, 2001). A total of 59 participants were excluded for failing the comprehension/attention checks (*N* = 51) and having incomplete responses (*N* = 22) on the main variables of interest. [3] The study took 10-15 minutes and participants were paid GBP 1.66 for their participation.

The final sample included 413 participants who were on average 36.89 (*SD* = 10.32) years old and were more likely to be female than male (female *N* = 235; others or prefer not to say *N* = 1). Participants were mostly white (*N* = 356), with a post-secondary qualification (*N* = 348), working in associate (*N* = 128) or managerial level positions (*N* = 130), with more than 5 years working experience (*N* = 207). This study was approved by the Human Research Ethics Committee at the first author's institution.

Procedure

The study was completed online on Qualtrics. Participants first read a short instruction of what the study involved before being asked to answer two comprehension checks to make sure they understood what they had to do in the study (see Appendix 1). Subsequently, participants completed the following measures.

Pay Inequality. We measured income inequality in participants' organizations using two measures. [4]

Ratio Inequality. Participants first completed a measure which asked them to estimate the actual average salaries of employees within the top 20% and bottom 20% of their organizations. The final index was calculated by dividing the top 20% salary by the bottom 20% salary. Higher index values reflect greater estimate of income inequality.

Perception of Inequality. We measured perception of income inequality using a single item (i.e., "Overall, please rate how equal or unequal you think the pay distribution is between the top and bottom 20% at your organization"). This item was recorded on a 10-point Likert scale (1 = Very equal to 10 = Very unequal). [5]

Pay Categorization. We used a comparative fit index to capture pay-based social categorization. Participants were asked to evaluate inter-group similarity (i.e., "Thinking about people in the top and bottom 20%: How similar do you think that people in the top 20% are to people in the bottom 20%?") as well as the intra-group similarity (i.e., "Thinking about employees within the top 20%: How similar do you think that people within the top 20% are to one another?" and "Thinking about employees within the bottom 20%: How similar do you think that people within the bottom 20% are to one another?"). All responses were recorded on a 7-point Likert scales (1 = Very different to 7 = Very similar). To compute a comparative fit index, we averaged the intra-group similarity score for each pay category and divided it by the inter-group similarity score. A higher ratio of intra-group to inter-group similarity indicated a greater comparative fit of pay, such that people perceive the highest and lower-paid employees as distinct social categories within the organization.

Superordinate Identification. Participants completed a 4-item social identification scale adapted to an organizational context (α = .93; Jetten et al., 2002): "I feel committed to this organization", "I am glad to be a part of this organization", "Being an employee at this organization is an important part of how I see myself", "I identify with being an employee at this organization". All responses were recorded on a 7-point Likert scale response (1 = Strongly disagree to 7 = Strongly agree).

Workplace Conflict. Participants indicated how often they experienced conflict in the workplace using a 4-item scale (α = .87; Penny & Spector, 2005): At work, how often do others: "…get into arguments at work?", "...yell at each other at work?", "...behave rudely to each other at work?" and "...do nasty things to each other at work?". All responses were recorded on a 5-point Likert Scale (1 = Never to 5 = Very often).

Leadership Perceptions. We measured participants' perceptions of (a) toxic leadership behaviors and (b) the leader's ability to create a sense of shared identity in the organization. [6]

a. Leader Toxicity. We measured perceived leadership toxicity using 15 of Schmidt's (2008) 30-item scale (α = .97). Participants rated the extent to which they thought a typical employee from the top 20% would engage in a range of toxic behaviors (i.e., "Tells subordinates they are incompetent", "Publicly ridicules subordinates", "Speaks poorly about subordinates to other people in the workplace", "Likes to control how subordinates complete their tasks", "Ignore ideas that are contrary to their own", "Invades the privacy of subordinates", "Feels entitled to be at the highest rank of the organization", "Thinks that they are more capable than others", "Believes that they are extraordinary people", "Likes to deny responsibility for mistakes made in the unit", "Would accept credit for successes that do not belong to them", "Acts only in the best interest of their next promotion", "Expresses anger at subordinates for unknown reasons", "Allows their current mood to define the climate of the workplace", and "Has explosive outburst"). All responses were recorded on a Likert scale response (1 = Strongly disagree to 7 = Strongly agree).

b. Identity Leadership Inventory. We used a 4-item scale to measure participants' perceptions that the typical highly-paid employee (i.e., from the top 20%) is an effective social identity leader (α = .87; Steffens et al., 2014): "The employee is a model member of the organization", "The employee acts as a champion for the organization", "The employee creates a sense of cohesion within the organization" and "The employee creates structures that are useful for other employees in the organization". All responses were recorded on a 7-point Likert scale (1 = Strongly disagree to 7 = Strongly agree).

Organizational Status. In addition to these measures, we also control for participants' perceptions of their own status in the organization using the MacArthur Scale of Subjective Social Status (Adler, 2007). Participants indicated where they perceived themselves along the organizational hierarchy on a scale of 1 (one of the lowest-paid employees in the organization) to 10 (one of the highest-paid employees).

Results

To test whether higher income inequality impacted pay-based categorization as well as measures of organizational functioning, we first conducted a series of multiple linear regressions examining models with each inequality measure (i.e., ratio and perceived inequality) as predictors of our dependent measures (i.e., pay-based categorization, superordinate identification, and perceptions of conflict as well as leader toxicity and identity leadership), controlling for perceived status and their interactions. The results were the same with or without controlling for participant status, thus we report the results excluding status from the analysis. See Table 1 for means, standard deviations and correlations.

Pay Inequality, Categorization and Organizational Functioning

Both ratio and perceived inequality measures were mean centered before the analysis.

Ratio Inequality

The analysis revealed that higher ratio estimate of inequality was significantly associated with greater comparative fit (B = .02, p = .007, f = .13), suggesting that in more unequal organizations, employees perceived pay as a more fitting basis for categorizing their work environment. Further, higher inequality was significantly associated with lower superordinate identification (B = -.01, p = .021, f = .11). The association between inequality and perception of workplace conflict was non-significant (B = .01, p = .106, f = .08). There was a weak but significant association between higher inequality and perception of greater leader toxicity (B = .01, p = .023, f = .11), but the association between inequality and perception of social identity leadership was not significant (B = .00, p = .663, f = .02).

Perceived Inequality

Higher perceived inequality was positively associated with greater comparative fit (B = .11, p < .001, f = .17) and with greater dysfunction on all organizational outcomes: lower superordinate identification (B = -.11, p < .001, f = .20), higher perceptions of workplace conflict (B = .05, p < .001, f = .18), leader toxicity (B = .19, p < .001, f = .35) and lower perceptions of identity leadership (B = -.08, p < .001, f = .18).

Pay Categorization and Organizational Functioning

To unpack whether pay categorization may in part underlie the relationship between inequality and superordinate identification, perceptions of conflict, identity leadership and leader toxicity, we examined the explanatory role of comparative fit using the “lavaan” pacakage on *R* with 95% bias corrected confidence interval based on 5,000 bootstrap samples. Although ratio inequality did not have a significant direct effect on some organizational outcomes (e.g., identity leadership), the absence of a direct effect does not mean the absence of an indirect effect (Zhao et al., 2010), and we therefore proceeded to conduct mediation analyses in all our measures of interest (See Figure 1 – 4). In all mediation models, ratio and perceived inequality were significantly associated with comparative fit (ratio: $B = .02$, $p = .007$; perceived: $B = .11$, $p = .001$). Indirect effects, standard errors and confidence intervals are reported in Table 2. [7]

Ratio Inequality

Based on Monte Carlo power analysis for indirect effects (using Schoeman et al., 2020), we had 92-95% power to detect the indirect effects of ratio inequality via comparative fit on the organizational outcomes with a sample size of 413.

Superordinate Identification. Comparative fit ($B = -.16$, $p < .001$) significantly predicted identification. This suggests that higher pay-categorization was associated with the weakening of the superordinate organizational identification. The total effect of inequality was significant ($B = -.01$, $p = .020$) and this effect became marginally significant after accounting for comparative fit ($B = -.01$, $p = .063$). However, there was a significant indirect effect of inequality via comparative fit.

Workplace Conflict. Comparative fit (B = .12, p < .001) significantly predicted perception of workplace conflict. This suggests that greater pay-based categorization was associated with higher perception of workplace conflict. The total effect of inequality was non-significant (B = .01, p = .104). This effect remained non-significant after accounting for comparative fit (B = .00, p = .377). There was a significant indirect effect of inequality via comparative fit.

Leader Toxicity. Comparative fit (B = .34, p < .001) significantly predicted perception of toxic leadership. Consistent with our arguments, higher pay-based categorization was associated with a negative perception of the leader as more toxic. The total effect of inequality was non-significant (B = .01, p = .186). This effect remained non-significant after accounting for comparative fit (B = .01, p = .186). However, there was a significant indirect effect of inequality via comparative fit.

Identity Leadership. Comparative fit (B = -.17, p < .001) significantly predicted perception of identity leadership, which suggests that increased pay-categorization was associated with the perception of leaders as less able to create shared social identity in the organization. The total effect of inequality was non-significant (B = .00, p = .662). This effect remains non-significant after accounting for comparative fit (B = .01, p = .237). However, there was a significant indirect effect of inequality via comparative fit.

Although the effects were weak, the results from the ratio measure provide some evidence to suggest that categorization on the basis of pay may in part influence the impact of inequality on superordinate identification, perception of conflict and identity leadership as well as leader toxicity in the organization.

Perceived Inequality

Based on Monte Carlo power analysis for indirect effects (using Schoeman et al., 2020), we had 86-95% power to detect the indirect effects of perceived inequality via comparative fit on the organizational outcomes with a sample size of 413.

Superordinate Identification. Comparative fit (B = -.16, p < .001) significantly predicted organizational identification. There was a significant total effect of inequality (B = -.12, p < .001). This effect remained significant after accounting for comparative fit (B = -.10, p <.001). The indirect effects of inequality via comparative fit was significant.

Workplace Conflict. Comparative fit (B = .12, p < .001) significantly predicted perceived workplace conflict. There was a significant total effect of inequality (B = .05, p < .001). This effect remained significant after accounting for comparative fit (B = .04, p = .006). The indirect effects of inequality via comparative fit was significant.

Leader Toxicity. Comparative fit (B = .34, p < .001) significantly predicted perceived toxic leadership. The total effect of inequality was significant (B = .19, p < .001). This effect remained significant after accounting for comparative fit (B = .16, p < .001). There was a significant indirect effect of inequality via comparative fit.

Identity Leadership. Comparative fit (B = -.17, p < .001) significantly predicted perceived identity leadership. The total effect of inequality was significant (B = -.08, p < .001). This effect remained significant after accounting for comparative fit (B = -.06, p = .005). There was a significant indirect effect of inequality via comparative fit.

Study 1 Discussion

We found evidence that both inequality measures (ratio and perceived inequality measures) were associated with greater comparative fit – the categorization of the highest and lowest-paid employees as distinct groups in the organization – and that this, in turn, was associated with lower superordinate organizational identification, perceptions of higher workplace conflict and leader toxicity as well as perception of lower identity leadership. Thus, our findings suggest that employees who work in highly unequal organizations may be less likely to feel a sense of “we”, and more likely to not get along or collaborate with their colleagues. Importantly, they may also hold negative perceptions of their current leaders as toxic and lacking the ability to steer a cohesive ship within the organization. It is important to note that the effect of the ratio measure of inequality was smaller compared to the effects for perceived inequality. This suggests that perhaps the perceived measure may better capture people’s subjective evaluation of inequality compared to the ratio measure.

Nevertheless, the correlational nature of this study poses the main limitation. In particular, we have not yet answered the question of whether higher pay inequality *causes* greater pay-based categorization, and whether inequality *leads* to lower superordinate organizational identification, heightened perceptions of conflict and leader toxicity as well as reduced perception of identity leadership. To overcome this limitation, Study 2 was an experimental investigation where participants were randomly assigned to imagine working in an organization with either a high or low pay inequality. We examined whether the inequality manipulation would influence participant’s pay-based categorization as well as the perception of a range of organizational outcomes.

Study 2

Method

Participants

We recruited 314 participants from the first-year student pool at the first author's institution (N = 47) and from an online research recruitment website Prolific.co (N = 267). A total of 78 participants were excluded due to failing the attention/comprehension (N = 34) checks or having incomplete responses (N = 15). The loss of participants was uniform across our experimental conditions (High inequality condition: N = 10; Low inequality condition: N = 17). The final sample included 286 participants; 142 were randomly allocated to the low inequality condition and 144 were in the high inequality condition.

Participants were on average 30 years old (SD = 10.45) and were about as likely to be male as female (male N =140; other or prefer not to say N = 5). Most had completed post-secondary education (N = 188), and all were Australian residents. Participants were mostly entry-level (N = 82) or associate-level employees (N = 73) and had 1-5 years working experience (N = 121). This study was approved by the Human Research Ethics Committee at the first author's institution.

Procedure

Participants completed the experiment online on the Qualtrics platform where they were introduced to a fictional organization called JAI and were asked to read a general description about what JAI was like as an organization (e.g., number of employees, franchises etc; see Appendix 2).

Next, participants were randomly assigned to either the high or low inequality condition where they learnt that the pay distribution in JAI was highly unequal or relatively equal. In the high inequality condition, participants saw a lopsided scale representing the state of inequality within the organization while learning that the top 5% of the company (i.e., the highest-paid employees) earned 150 times more than the bottom 5% (i.e., the lowest-paid employees). In contrast, in the low inequality condition, participants saw a balanced scale and learnt that the top 5% only earned 1.5 times more than the bottom 5%. Subsequently, participants were asked to imagine being an average-paid employee from the middle 5% of JAI and to describe their experience working at the organization (e.g., What would be your daily routine?). The task aimed to get participants engaged with the paradigm. Subsequently, to examine whether participants perceive different levels of inequality between our experimental manipulations, they also completed a manipulation check (e.g., Please rate the extent to which you think the income distribution is equal or unequal in JAI) with a 9-point response scale (1 = Very unequal to 9 = Very equal). They also completed a range of measures of interest.

The measures were, with two exceptions, the same as in Study 1 and were found to be reliable (all αs > .70). There were two differences from Study 1: (1) rather than asking about the top and bottom 20%, participants were asked about the top and bottom 5% of their organizations and (2) leadership perceptions were only measured using the leader toxicity scale. [8]

Results

Manipulation Check

Our manipulation was successful: participants in the high inequality condition perceived the pay distribution to be less equal (M = 1.84, SD = 1.30) than those in the low inequality condition (M = 6.81, SD = 1.86), $t(251.53) = 26.13$, $p < .001$.

Pay Inequality, Categorization and Organizational Functioning

To test whether high (versus low) organizational pay inequality impacted comparative fit and the organizational outcomes, we first conducted a series of independent samples t-tests. Means and standard deviations are reported in Table 3.

In line with the expectation that greater income inequality would increase the fit of wealth categories, participants in the high (versus low) inequality condition expected significantly greater comparative fit, $t(263.73) = -7.01$, $p < .001$, 95% CI[-.17, -.98], d = .86.

Moreover, in line with findings that higher inequality would be associated with negative organizational outcomes, we found that participants in the high (versus low) inequality condition expected to have lower superordinate identification, $t(279.45) = 9.03$, $p < .001$, 95% CI[1.10, 1.71], d = 1.08, and greater workplace conflict, $t(267.62) = -8.09$, $p < .001$, 95 % CI[-.76, -.46], d = .99, as well as greater leader toxicity, $t(276.94) = -11.43$, $p < .001$, 95 % CI[-1.81, -1.28], d = 1.36.

Pay Categorization and Organizational Functioning

Similar to Study 1, we conducted mediation analyses to test the explanatory role of comparative fit in explaining the effect of high (versus low) pay inequality on organizational outcomes. In these mediation models, inequality significantly predicted comparative fit (*B* = 1.37, $p < .001$). Based on Monte Carlo power analysis for indirect effects (using Schoeman et al., 2020), we had 98-100% power to detect the indirect effects of perceived inequality via comparative fit on the organizational outcomes with a sample size of 286.

Superordinate Identification

Comparative fit (*B* = -.19, $p < .001$) significantly predicted superordinate organizational identification. There was a significant total effect of inequality (*B* = -1.41, $p < .001$). This effect remained significant (*B* = 1.14, $p < .001$) after controlling for comparative fit. The indirect effect of inequality through comparative fit was significant, *B* = -.26, *SE* = .07, 95% CI[-.41, -.12].

Workplace Conflict

Comparative fit (*B* = .11, $p < .001$) significantly predicted expectations of workplace conflict. There was a significant total effect of inequality (*B* = .61, $p < .001$). This effect remained significant (*B* = .46, $p < .001$) after controlling for comparative fit. The indirect effect of inequality through comparative fit was significant, *B* = .15, *SE* = .05, 95% CI[.08, .23].

Leader Toxicity

Comparative fit (*B* = .25, $p < .001$) significantly predicted expectations of toxic leadership. There was a significant total effect of inequality (*B* = 1.54, $p < .001$). This effect remained significant (*B* = 1.20, $p < .001$) after controlling for comparative fit. The indirect effect of inequality through comparative fit was significant, *B* = .35, *SE* = .07, 95% CI[.21, .49].

Study 2 Discussion

In line with findings in Study 1, we found that an organization characterized by high (versus low) pay inequality is likely to be seen as more dysfunctional because it *causes* participants to perceive higher levels of inequality and, in turn, anticipate a lower sense of superordinate identification, expect greater workplace conflict and more toxic leadership behaviors. Importantly, there was evidence that the effects of inequality on these organizational outcomes may be in part driven by the fragmentation of the organization on the basis of pay such that participants in the more unequal organization showed tendency to categorize the highest and lowest-paid employees as distinct social groups.

General Discussion

At present, the gap between the highest-paid and the lowest-paid employees continues to widen. Specifically, in 2020, 100 top leaders (e.g., CEO, top management team) within S&P 500 firms saw their pay increased by 29 percent while the average workers experienced a two percent decrease (Andersen & Pizzigati, 2021). Although there is evidence that suggests that this rise in pay inequality has the potential to produce negative organizational outcomes (e.g., lower collaboration), the existing organizational literature does not provide clear explanations as to *why* or *how* inequality may have these effects (Shaw, 2014). Using the social identity approach, the present research suggests that higher pay inequality may lead to organizational dysfunction because it enhances the comparative fit of pay – as a basis for social categorization – and thus psychologically divides and undermines a sense of oneness in the workplace.

Specifically, across two studies (i.e., a field survey and an experiment), we found consistent evidence that higher inequality increased the tendency for participants to perceive greater dissimilarity between employees from the highest and lowest-paid categories and greater similarity between employees within the same pay category (i.e., greater comparative fit to categorize the organizational "haves" and "have nots" as distinct social groups). Such categorization, in turn, was associated with participants reporting reduced identification as members of the organization and increased expectations of conflict among co-workers. We also found that pay-based categorization contributed to perceptions of the current leaders as more toxic (measured in both Study 1 and Study 2) and as unable to create a sense of "we" and "us" (i.e. poorer identity leadership measured in Study 1).

Implications

Taken together, the present research provides two unique contributions to the study of organizational pay inequality. First, although previous studies have focused on the negative *outcomes* of higher pay disparity (Bloom, 1999; Shaw et al., 2002), there is little empirical evidence explaining *why* higher pay disparity has these negative outcomes (Shaw, 2014). As such, the current research offers a social psychological explanation (or mechanism) to why higher pay inequality is detrimental to organizational life (e.g., reduced cooperation). Second, and in relation to this, we bring in compelling theorizing (i.e., the social identity approach) to understanding these processes. We show that the negative outcomes associated with higher pay inequality may be due to inequality increasing the comparative fit of wealth categories which, in turn, may propel employees to categorize their organizations into the "haves" and "have nots". As we have shown, such categorization, in turn, can reinforce perceptions of divide and corrode a sense of unity at the workplace (e.g., reduced organizational identification). In this way, the current research not only builds on previous work (i.e., explaining *why* higher pay inequality is detrimental) but also lends support to social identity theorizing and highlights its applicability to the pay inequality literature (Peters et al., 2019; Steffens et al., 2020).

Our research also has implications for the design of organizational reward structure that are likely to maximize the level of cooperation and efficiency of their workers. Although extravagant pay of top leaders are often seen as a reward for their value and performance (i.e., the value they generate to the organization), our results suggest that this reward structure may backfire by introducing division among employees. In particular, our results suggest that the more top leaders are paid relative to other employees (especially when employees perceive this pay inequality), the more likely they are to be categorized as “not one of us” or as “doing it for us” by other organizational members (Steffens et al., 2019). To the extent this occurs, this is likely to be consequential for organizational performance as there is abundant evidence to show that leaders are most able to steer the organization and guide their followers is if they are perceived as in-group members (e.g., Ellemers et al., 2004; Haslam et al., 2020). Indeed, given the current trend towards greater pay transparency in many countries across the world (i.e., regulations for companies to make their pay structure accessible to the public; see Dodd-Frank Act in the US), which may increase perceptions of pay inequality, it behoves companies to be mindful of the way in which pay structure may have significant psychological and behavioral impacts on their workforce .

Limitations and Future Directions

The present research has a number of strengths. In particular, our multi-method approach (i.e., data from both a field survey and an experiment) has allowed us to provide novel evidence that higher (versus lower) pay inequality may create organizational dysfunction because it causes pay-based categorization and division in the workplace. At the same time, our studies are not without limitations. In particular, due to our study design, we cannot provide causal evidence that greater pay-based categorization leads to more negative organizational outcomes (e.g., increased perception of leader toxicity). For instance, in regards to leadership, it is also possible that the perception of leaders as more toxic serve to increase the comparative fit of pay categories – that is, it leads to the categorization of leaders as more different from other lower-paid employees. Establishing the directionality of these effects in future research is important in supporting our theoretical approach.

The present research also included a limited number of variables. For instance, we did not include other measures of identification (except superordinate organizational identification) and thus were unable to pinpoint how higher pay inequality (and the subsequent fitness of pay categories) may influence other work-related identities (e.g., based on seniority, department or team) to reinforce a specific “us” versus “them” distinction in the workplace. This is an important point because research suggests that different levels of work-related identities (e.g., occupation, team) may shape perceptions and workplace cooperation in varying ways (e.g., Haslam et al., 2000). Along similar lines, it is plausible that as inequality increase pay categorization, it may increase conflict at an inter-group level (between higher and lower-paid work groups) but greater solidarity at an intra-group level (among employees in the same work team). As our measure assessed general conflict within the organization, it would be interesting for future studies to include a wider range of measures to explore this possibility.

Moreover, it would be interesting to explore how other socio-structural features within organizations, such as legitimacy (or perceived fairness of pay distribution), can interact with inequality to shape organizational outcomes. For instance, is it the case that the negative impact of pay inequality on organizational outcomes are weakened if inequality is perceived as legitimate (or fair) whereby the higher-paid employees are seen as more competent and indispensable to organizational performance? Indeed, according to social identity theorizing, legitimacy might impact how people makes sense of inequality by changing the content or stereotypes which people have of these pay categories (i.e., normative fit; see Tanjitpiyanond et al., 2021). In this paper, we focused on how inequality divide organizations via principle of comparative fit, however, future studies should extend our findings on how normative fit or stereotype content of the wealthy and poor may matter on how inequality shape organizational outcomes.

Lastly, there would be value in examining how the effects we observe change across different industries, organizational structures, sizes and cultures. Specifically, it is possible, for instance, that the strength of our effects may change in organizations situated in cultures which highly value seniority and hierarchy. Such values may moderate the effects of how the separation of the organizational “haves” and “have nots” (i.e., pay-categorization) influence employees’ sense of shared identity and collaboration. In light of this, it is important to note that the data from the present research was collected from participants in Western countries (i.e., UK and Australia). Thus, we acknowledge that it is possible that our results may not reflect the psychological experiences of employees working in non-Western organizations. This acknowledgement is important because, as alluded to above, norms that are culture specific, may interact with inequality and change how pay-categorization influences different organizational outcomes. These questions leave room for future research to address.

Conclusion

In sum, the current research provides a novel lens to understanding how higher pay inequality may harm organizational functioning. In particular, it extends the applicability of the social identity approach to show that higher pay inequality may lead people to map wealth categories to their work environment and introduce division to the organization such that employees identify less with the superordinate organizational group, experience higher levels of workplace conflict and perceive their leaders more negatively. In this way, the present paper sheds light on the way in which higher pay inequality shape employees' categorization processes, which, in turn, may partly explain why it can contribute to a state of organizational dysfunction.

Conflicting Interests

The authors have no financial or non-financial interests to disclose.

Funding

The author(s) disclosed receipt of the following financial support for the research, authorship, and/or publication of this article: This research contribution was supported by an Australian Research Council Discovery grant (DP170101008).

Appendices

Appendix 1. Introduction to the study and manipulation checks

Welcome to this study!

Please make sure you have read and understood the information below. In the next section, you will be asked about what the study involves.

This study aims to explore your experience working at your current organization.

There will be 3 different parts to this study.

- First, we will ask you to imagine **the TOP 20% or the highest-paid employees** in your organization and **the BOTTOM 20% or the lowest-paid employees**.
- You will be asked to describe your past interactions with these employees.
- Lastly, we will ask you general questions about your experience working at the organization.

Please take your time to answer each part truthfully.

Note: You will not be asked to name the organization or any of your colleagues.

Based on the information given previously, please answer the following questions about the study:

1. The aim of the study is to explore your experience ___?

(a) At your organization

(b) At home

(c) At a restaurant

2. Who will you have to imagine in the study?

(a) The highest and lowest-paid employees

(b) My friends

(c) My family

Appendix 2. Experimental manipulation

Welcome to this study!

In this study you will be asked to imagine that you are working for an organization called JAI. In the next section, you will learn more about what JAI is like as an organization. You will then be asked to answer questions on what you think it would be like to work for a company like JAI. **<u>Please read through the information in the next section very carefully.</u>**

JAI is multinational organization that produces a range of furniture and household products. It is one of the largest furniture retailers in the country with more than 100 stores. Last year, the company made over $500 million in sales and revenue. Next, you will learn how pay is distributed among employees at JAI.

Unequal Condition

This picture shows how pay is distributed to different employees within the orginisation. The scale in the picture represents how much the top, middle and bottom 5% of the company’s employees receive from the company's salary budget. As you can see, the scale is quite unbalanced. This is because the top 5% or the highest-paid employees earn much more than the bottom 5% or the lowest-paid employees**.** This means that the **pay distribution within the organization is highly unequal.**

The **TOP 5%** earns **150 times** more than the **BOTTOM 5% of the company.**

Equal Condition

This picture shows how pay is distributed to different employees within the orginisation. The scale in the picture represents how much the top, middle and bottom 5% of the company’s employees receive from the company's salary budget. As you can see, the scale is quite balanced, which means that **employees are generally equally paid within the organization.**

The **TOP 5%**earns **1.5 times** more than the **BOTTOM 5% of the company.**

Notes

1 Here, we acknowledge that the stark contrast between the organization's "haves" and "have nots" can also evoke a sense of injustice which then reduces the likelihood of organizational identification. However, the theoretical focus of this paper is not on "fairness" (which has been widely studied in organizational literature), but how inequality influence categorization process.

2 This research was part of a larger project examining the effect of income inequality and stereotyping in organizations. Thus, we also included measures of other work-related outcomes (e.g, job satisfaction). The research questions in the current research were exploratory and none were pre-registered. For a full list of measures and pre-registration for the larger project see: https://osf.io/hp4dv/

3 We also analyzed the data for both Study 1 and Study 2 including these excluded participants. The results were generaly identical, except in Study 1, where ratio inequality no longer predicted organizational identification (became non-significant, (B = -0.00, p = .554) and leader toxicity (became marginally significant, B = 0.00, p = .068) but now did predict conflict (B = 0.00, p = .019).

4 We also included another measure of inequality (asking participants to indicate how many times (from 0-100) the highest-paid employees earn more than the lowest-paid employees). However, due to the low correlation between the reported ratio measure and the previous measure (r = .20, p < .001) we decided to use the ratio measure as our main index of inequality. We did not find any effect of the previous measure on organizational outcomes.

5 This item was not included in the pre-registration and was added just prior to data collection to check whether participants perception of inequality correspond to the ratio measure.

6 Please note that although we argue that reduced leadership toxicity and higher identity leadership together would increase the effectiveness of leaders in creating a sense of “we” and “us” in the organization, these qualities may not always guarantee the effectiveness of leaders in meeting all concrete organizational goals (e.g., increasing company’s profit).

7 To check the robustness of our findings, we also combined both ratio and perceived inequality measures into a single inequality index and ran mediation analyses with this index as a predictor. The results were the same with the findings reported in this paper.

8 This study was conduced prior to Study 1. We asked about the top and bottom 5% as it was the original design of this inequality paradigm. However, in Study 1, we asked about the top and bottom 20% to capture include a larger segment of emplyoees within participants’ organizations. The identity leadership scale was not included because we only added that in Study 1 (conducted after Study 2).

References

Adler, N., & Stewart, J. (2007). The MacArthur scale of subjective social status. MacArthur Research Network on SES & Health.

Akerlof, G. A., & Kranton, R. E. (2010). *Identity economics*. Princeton University Press.

Anderson, S., & Pizzigati, S. (2021). *Pandemic pay plunder Low-wage workers lost hours, jobs, and lives. Their employers bent rules to pump up CEO paychecks.* Institute for Policy Studies. https://ips-dc.org/report-executive-excess-2021

Bloom, M. (1999). The performance effects of pay dispersion on individuals and organizations. *Academy of Management Journal*, *42*(1), 25-40. https://doi.org/10.5465/256872

Bratanova, B., Summers, J., Liu, S., & Vauclair, M.C. (2019). A rising tide lifts some boats but leaves many others behind: The harms of inequality-induced status seeking and the remedial effects of employee ownership. In J. Jetten & K. Peters (Eds.), *The social psychology of inequality* (pp. 67-83). Springer.

Breza, E., Kaur, S., & Shamdasani, Y. (2018). The morale effects of pay inequality. *The Quarterly Journal of Economics*, *133*(2), 611-663. https://doi.org/10.1093/qje/qjx041

Brown, P. M., & Turner, J. C. (2002). The role of theories in the formation of stereotype content. In C. McGarty, V. Y. Yzerbyt, & R. Spears (Eds.), *Stereotypes as explanations: The formation of meaningful beliefs about social groups* (pp. 67–89). Cambridge University Press. https://doi.org/10.1017/CBO9780511489877.005

Cheng, L., Hao, M., & Wang, F. (2021). Beware of the 'Bad Guys': Economic inequality, perceived competition, and social vigilance. *International Review of Social Psychology*, *34*(1). http://doi.org/10.5334/irsp.497

Cheung, F., & Lucas, R. E. (2016). Income inequality is associated with stronger social comparison effects: The effect of relative income on life satisfaction. *Journal of Personality and Social Psychology*, *110*(2), 332-341. http://dx.doi.org/10.1037/pspp0000059

Connelly, B. L., Haynes, K. T., Tihanyi, L., Gamache, D. L., & Devers, C. E. (2016). Minding the gap: Antecedents and consequences of top management-to-worker pay dispersion. *Journal of Management*, *42*(4), 862-885. https://doi.org/10.1177/0149206313503015

Connor, P., Varney, J., Keltner, D., & Chen, S. (2020). Social class competence stereotypes are amplified by socially signaled economic inequality. *Personality and Social Psychology Bulletin*. https://doi.org/10.1177/0146167220916640

Ellemers, N., De Gilder, D., & Haslam, A.S. (2004). Motivating individuals and groups at work: A social identity perspective on leadership and group performance. *Academy of Management Review*, *29*(3), 459-478. https://doi.org/10.5465/amr.2004.13670967

Hains, S. C., Hogg, M. A., & Duck, J. M. (1997). Self-categorization and leadership: Effects of group prototypicality and leader stereotypicality. *Personality and Social Psychology Bulletin*, *23*(10), 1087-1099. https://doi.org/10.1177/01461672972310009

Haslam, A. S., Reicher, S. D., & Platow, M. J. (2020). *The new psychology of leadership: Identity, influence and power*. Routledge.

Haslam, A. S., Powell, C., & Turner, J. (2000). Social identity, self-categorization, and work motivation: Rethinking the contribution of the group to positive and sustainable organisational outcomes. *Applied Psychology*, *49*(3), 319-339. https://doi.org/10.1111/1464-0597.00018

Henderson, A. D., & Fredrickson, J. W. (2001). Top management team coordination needs and the CEO pay gap: A competitive test of economic and behavioral views. *Academy of Management Journal*, *44*(1), 96-117. https://doi.org/10.5465/3069339

Hogg, M., & Terry, D. J. (2000). Social identity and self-categorization processes in organizational context. *Academy of Management Review*, *25*(1). 121-140. https://doi.org /10.2307/259266

Hogg, M. A., Hains, S. C., & Mason, I. (1998). Identification and leadership in small groups: Salience, frame of reference, and leader stereotypicality effects on leader evaluations. *Journal of Personality and Social Psychology*, *75*(5), 1248. https://doi.org/10.1037/0022-3514.75.5.1248

Jetten, J., Peters, K., Álvarez, B., Casara, B. G. S., Dare, M., Kirkland, K.,…Wang, Z. (2021). Consequences of economic inequality for societies' social and political vitality: A social identity analysis [Manuscript submitted for publication]. School of Psychology, The University of Queensland.

Jetten, J., Postmes, T., & McAuliffe, B. J. (2002). 'We're all individuals': Group norms of individualism and collectivism, levels of identification and identity threat. *European Journal of Social Psychology*, *32*(2), 189-207. https://doi.org/10.1002/ejsp.65

Jetten, J., Wang, Z., Steffens, N. K., Mols, F., Peters, K., & Verkuyten, M. (2017). A social identity analysis of responses to economic inequality. *Current Opinion in Psychology*, *18,* 1-5. https://doi.org/10.1016/j.copsyc.2017.05.011

Kraus, M. W., Park, J. W., & Tan, J. J. (2017). Signs of social class: The experience of economic inequality in everyday life. *Perspectives on Psychological Science*, *12*(3), 422-435. https://doi.org/10.1177/1745691616673192

Mishel, L., & Kandra, J. (2020). *CEO compensation surged 14% in 2019 to $21.3 million*. Economic Policy Institute. https://www.epi.org/publication/ceo-compensation-surged-14-in-2019-to-21-3-million-ceos-now-earn-320-times-as-much-as-a-typical-worker/

Penney, L. M., & Spector, P. E. (2005). Job stress, incivility, and counterproductive work behavior (CWB): The moderating role of negative affectivity. *Journal of Organizational Behavior: The International Journal of Industrial, Occupational and Organizational Psychology and Behavior*, *26*(7), 777-796. https://doi.org/10.1002/job.336

Peters, K., Fonseca, M. A., Haslam, S. A., Steffens, N. K., & Quiggin, J. (2019). Fat cats and thin followers: Excessive CEO pay may reduce ability to lead. In J. Jetten & K. Peters (Eds.), *The social psychology of inequality* (pp. 21-34). Springer.

Peters, K., Jetten, J., Tanjitpiyanond, P., Zhechen, W., Mols, F., & Verkuyten, M. (in press). *The language of inequality.* Personality and Social Psychology Bulletin.

Pfeffer, J., & Langton, N. (1993). The effect of wage dispersion on satisfaction, productivity, and working collaboratively: Evidence from college and university faculty. *Administrative Science Quarterly*, *38*(3), 382-407. https://doi.org/10.2307/2393373

Platow, M. J., & van Knippenberg, D. (2001). A social identity analysis of leadership endorsement: The effects of leader ingroup prototypicality and distributive intergroup fairness. *Personality and Social Psychology Bulletin*, *27*(11), 1508-1519. https://doi.org/10.1177/01461672012711011

Platow, M. J., Van Knippenberg, D., Haslam, S. A., Van Knippenberg, B., & Spears, R. (2006). A special gift we bestow on you for being representative of us: Considering leader charisma from a self-categorization perspective. *British Journal of Social Psychology*, *45*(2), 303 - 320. https://doi.org/10.1348/014466605X41986

Putnam-Farr, E., & Morewedge, C. K. (2020). Which social comparisons influence happiness with unequal pay?. *Journal of Experimental Psychology: General*, *150*(3), 570–582. https://doi.org/10.1037/xge0000965

Schmidt, A. A. (2008). *Development and validation of the toxic leadership scale* [Doctoral dissertation, University of Maryland]. ProQuest Dissertations Publishing. https://www.proquest.com/openview/2d4bf487b9961c7a5eedb5af1aefe456/1?pq-origsite=gscholar&cbl=18750

Schoemann, A. M., Boulton, A. J., & Short, S. D. (2020). Monte Carlo power analysis for indirect effects.

Shaw, J. D., Gupta, N., & Delery, J. E. (2002). Pay dispersion and workforce performance: Moderating effects of incentives and interdependence. *Strategic Management Journal*, *23*(6), 491-512. https://doi.org/10.1002/smj.235

Shaw, J. D. (2014). Pay dispersion. *Annual Review of Organizational Psychology and Organizational Behaviour*, *1*(1), 521-544. https://doi.org/10.1146/annurev-orgpsych-031413-091253

Siegel, P. A., & Hambrick, D. C. (2005). Pay disparities within top management groups: Evidence of harmful effects on performance of high-technology firms. *Organization Science*, *16*(3), 259-274. https://doi.org/10.1287/orsc.1050.0128

Steffens, N. K., Haslam, S. A., Peters, K., & Quiggin, J. (2020). Identity economics meets identity leadership: Exploring the consequences of elevated CEO pay. *The Leadership Quarterly*, *31*(3), 101269. https://doi.org/10.1016/j.leaqua.2018.10.001

Steffens, N. K., Haslam, S. A., Reicher, S. D., Platow, M. J., Fransen, K., Yang, J., ... & Boen, F. (2014). Leadership as social identity management: Introducing the Identity Leadership Inventory (ILI) to assess and validate a four-dimensional model. *The Leadership Quarterly*, *25*(5), 1001-1024. https://doi.org/10.1016/j.leaqua.2014.05.002

Tajfel, H., & Turner, J. C. (1979). An integrative theory of intergroup conflict. In W. G. Austin & S. Worchel (Eds.), *The social psychology of intergroup relations* (pp. 33-37). Monterey, CA: Brooks/Cole.

Tanjitpiyanond, P., Jetten, J., & Peters, K. (2021). How economic inequality shapes social class stereotyping [Manuscript submitted for publication]. School of Psychology, The University of Queensland.

Turner, J. C., Hogg, M. A., Oakes, P. J., Reicher, S. D., & Wetherell, M. S. (1987). *Rediscovering the social group: A self-categorization theory*. Basil Blackwell.

Walasek, L., & Brown, G. D. (2015). Income inequality and status seeking: Searching for positional goods in unequal US states. *Psychological Science*, *26*(4), 527-533. https://doi.org/10.1177/0956797614567511

Walasek, L., & Brown, G. D. (2016). Income inequality, income, and internet searches for status goods: A cross-national study of the association between inequality and well-being. *Social Indicators Research*, *129*(3), 1001-1014. https://doi.org/10.1007/s11205-015-1158-4

Walasek, L., & Brown, G. D. (2019). Income inequality and social status: The social rank and material rank hypotheses. In J. Jetten & K. Peters (Eds.), *The social psychology of inequality* (pp. 235-248). Springer.

Zhao, X., Lynch Jr, J. G., & Chen, Q. (2010). Reconsidering Baron and Kenny: Myths and truths about mediation analysis. *Journal of Consumer Research*, *37*(2), 197-206. https://doi.org/10.1086/651257