# Leader risk mitigates the effects of pay inequality on team coordination: An experiment*

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**Abstract**

Effective team coordination is essential for organizational success, yet it often hinges on whether individuals are willing to follow a leader. We study how pay and risk inequality influence teams' willingness to follow their leaders in a setting where leaders coordinate team expectations and decisions through their actions. Using a game-theoretic model, we predict that pay inequality undermines leaders' ability to coordinate their teams, but that risk inequality can offset this negative effect if leaders face greater personal risk. We test and validate these predictions in a large experiment that systematically varies pay and risk inequality. Pay inequality reduces coordination, especially when leaders enjoy both a bonus and lower risk, but this effect disappears when leaders take on substantial risk. Risk-averse team members and those who believe their teammates are inequality-averse are especially sensitive to changes in pay and risk inequality. Our findings highlight how inequality in leadership incentives affects coordination.

**Keywords:** Pay inequality, risk exposure, strategic uncertainty, leadership.

**JEL Codes:** C92, D23, J31, L23, M52

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# 1 Introduction

This paper examines whether and how differences in pay and risk exposure between leaders and their team members affect coordination within teams. Leadership plays a crucial role in shaping team dynamics and performance. A key function of leadership is to align team members' expectations and coordinate their actions (e.g., Brandts and Cooper, 2006; Zehnder et al., 2017). We focus on coordination because it represents a foundational challenge in team settings—one where success depends not on individual effort or compliance alone, but on aligning expectations and actions, a process that can be particularly sensitive to perceptions of fairness.

One factor that may influence a leader's effectiveness is the extent to which their incentives are aligned with those of their team members. A prominent example is pay inequality between leaders and followers. While CEO compensation often attracts the most attention due to its magnitude, disparities in pay exist across all levels of leadership.[1] The impact of pay inequality on team coordination is not obvious. On the one hand, evidence from organizational settings (Clark and Oswald, 1996; Bloom, 1999; Card et al., 2012; Guo et al., 2017; Perez-Truglia, 2020; Cullen and Perez-Truglia, 2022) and controlled experiments (Fehr and Schmidt, 1999; Bolton and Ockenfels, 2000) suggests that individuals are averse to unequal pay. Combined with findings that pay inequality can lead followers to form more pessimistic expectations about the likelihood of successful coordination (Chmura et al., 2005; Bland and Nikiforakis, 2015; Feldhaus et al., 2020), this aversion can reduce their willingness to follow leaders. On the other hand, team members may be willing to follow leaders despite pay disparities when leaders' incentives are aligned with their own, especially if followers regard the pay inequality as legitimate (Trevor et al., 2012; Cappelen et al., 2013; Breza et al., 2018).

One reason why pay inequality may be perceived as legitimate is differences in risk exposure—a second key dimension along which leader and follower incentives often diverge. Risk inequality refers to the extent to which leaders bear greater or lesser financial or professional risk relative to their teams. For instance, leaders in organizations may face more severe consequences from upper management or shareholders if team coordination fails or the performance of their teams falls short. Such differences in risk exposure can serve as signals of a leader's commitment and credibility, poten-

[1] A selection of studies illustrating this point includes Bebchuk and Fried (2004); Tervio (2008); Gabaix and Landier (2008); Bebchuk et al. (2011); Mueller et al. (2017); Ohlmer and Sasson (2018); Gartenberg and Wulf (2020).

tially mitigating the negative effects of pay inequality (Conger and Kanungo, 1994; Antonakis, 2012; Yang et al., 2023). Despite its relevance, little empirical research has examined how risk inequality affects team performance or coordination within organizations. This gap is surprising for at least two reasons. First, risk inequality is pervasive, particularly at higher levels of leadership, where bonuses and performance-based pay often constitute a significant share of total compensation (Lazear and Shaw, 2007). Even at lower levels, leaders often bear disproportionate responsibility and exposure to risk, as they are held accountable for team outcomes. Second, pay and risk inequality frequently coincide, with higher compensation justified by the greater risks leaders are expected to assume. This interdependence underscores the importance of disentangling the effects of each to better understand their separate and combined influence on team coordination and organizational performance.

We investigate the causal effect of pay inequality and risk inequality on team coordination. Studying these two factors jointly is important because, as mentioned, pay inequality and risk inequality often go hand-in-hand, with higher pay frequently serving to offset greater risk. However, their combined effect on team coordination remains underexplored, despite their relevance to both leadership theory and organizational practice. Identifying the separate impacts of pay inequality and risk inequality with observational data is challenging. Apart from the difficulty of measuring risk exposure and team coordination, there are numerous other challenges concerning identification. For instance, if organizational data show that teams with highly paid managers perform poorly, it could be because employees dislike inequality, or it could be because managers are selecting into companies based on the pay structure.[2] To address these challenges, we use controlled experiments, building on a growing experimental literature on leadership (e.g., Weber et al., 2001; d'Adda et al., 2017; Nikiforakis et al., 2019; Garretsen et al., 2020; Cooper et al., 2024). Controlled experiments allow us to disentangle the effect of pay inequality from that of risk inequality by separately varying them across conditions. In addition, we explore the mechanisms underlying these effects by measuring individuals' attitudes toward pay inequality and risk.

Leadership in our experiment takes the form of leading by example—a widely studied and naturally occurring form of leadership behavior (e.g., Hermalin, 1998; Huck and Rey-Biel, 2006; Potters et al., 2007; Sahin et al., 2015; Eisenkopf, 2020). In our setting, one individual is randomly assigned the role of leader and makes the first de-

[2]For evidence on how social preferences can affect selection, see Erkal et al. (2011); Lazear et al. (2012).

cision: whether to pursue a safe project or a risky one. The remaining team members observe this choice before making their own decisions, simultaneously and without communication. The safe project guarantees a fixed payment to any individual who selects it. The risky project offers a higher payment, but only if all team members choose it; if even one person selects the safe option, those who chose the risky path face a bad outcome.[3] The task therefore requires coordination, and the leader's early choice can serve as a natural focal point around which team members may align.

To examine how pay inequality and risk inequality influence whether team members follow their leader's example, we vary two aspects of the leader's incentives across experimental conditions. The first concerns whether leaders receive a bonus when the team successfully coordinates. This creates pay inequality, since team members do not receive a similar bonus when the risky project succeeds. The second aspect is the leader's exposure to risk—specifically, the personal cost they incur if they choose the risky project and at least one team member opts for the safe one instead. Our two main research questions are: (*i*) Are team members less likely to follow their leader when doing so leads to pay inequality? (*ii*) Are they more willing to accept pay inequality when the leader also faces risk? Put differently, can risk inequality make pay inequality more acceptable? As mentioned, the answer to the first question is not obvious. Even if individuals dislike pay inequality, they may still follow their leader if doing so gives them a better outcome than if the project fails. Moreover, they may decide to follow the leader to avoid reducing the pay of other team members. Regarding the second question, even if a team member believes the leader's higher pay is justified by the risk they bear, they will only follow the leader's example if they believe others share that view. Cooper et al. (2020) refer to such shared beliefs about the appropriateness of a leader's actions as the leader's social credibility.

To provide theoretical guidance for how pay inequality and risk inequality affect team coordination, we develop a simple game-theoretic model. Our analysis draws

[3]This structure captures a common challenge in teams where collective success depends on the contributions of all members, or where outcomes hinge on the so-called "weakest link" (e.g., Lazear, 2012; Brandts et al., 2016; Zehnder et al., 2017). Specifically, our task is a modified stag-hunt game. The stag-hunt game, introduced by Jean-Jacques Rousseau in *Discourse on Inequality*, illustrates the trade-off between a high-reward collective goal that requires mutual trust and a safer individual option. This framework has informed research on cooperation, trust, and coordination across disciplines (Skyrms, 2004). In our study, we use a version of the stag hunt with a designated leader to explore how individuals align around a shared objective. While this differs from the teams literature's emphasis on the timing and sequencing of interdependent actions (Mathieu et al., 2001), both perspectives underscore the importance of interdependence. The stag hunt simplifies coordination dynamics, allowing us to examine the fundamental role of trust, incentives, and leadership.

on insights from behavioral economics, incorporating two well-documented features of human decision-making. The first is that many people dislike unequal pay (e.g., Fehr and Schmidt, 1999; Bolton and Ockenfels, 2000; Charness and Rabin, 2002). The second is that people are sensitive to (strategic) uncertainty about others' actions (e.g., Harsanyi and Selten, 1988; Dal Bó et al., 2021). Combining these ideas, the model predicts that team members will be less likely to follow a leader when doing so benefits the leader more. However, the model also predicts that the same team members may be willing to follow their leader's action, if the pay inequality is associated with an increased level of risk, i.e., when the leader will suffer a greater cost for team miscoordination than the followers. The model mirrors our experimental design: team members' incentives remain fixed across conditions, so any differences in behavior can be attributed solely to changes in the leader's incentives.

A strength of our study is the diversity of the participant pool. Rather than relying on a relatively homogeneous student sample, we recruited a large and heterogeneous sample of 2,030 individuals from the United States and Europe. This sample allows us to examine the robustness of our findings across populations with documented differences in preferences toward fairness and equality (e.g., Almås et al., 2020). A more homogeneous sample could raise questions about the generalizability of our findings given that homegrown preferences for risk and pay equality are at the core of our analysis. Since our primary interest lies in how team members respond to variations in leaders' incentives, our main analyses focus on the 1,513 participants assigned to the role of team member. While our experimental design necessarily abstracts from real-world complexity, it provides a well-identified and theoretically grounded framework for isolating causal mechanisms. As such, we view this study as a valuable step toward understanding how compensation structures affect team coordination across diverse environments.

Our experimental findings broadly support the model's predictions while also revealing important qualifications. First, teams with a designated leader are significantly more likely to coordinate successfully than those without one, underscoring the effectiveness of leading by example in reducing coordination failure. Second, pay inequality weakens team members' willingness to follow the leader's choice when the leader is exposed to less risk than the rest of the team. Third, this negative effect disappears when leaders face equal or greater risk than their followers, suggesting that risk exposure can legitimize higher compensation and restore the leader's influence. Importantly, we find that risk exposure improves coordination only when pay inequality is present; when compensation is equal across roles, additional leader risk does not increase coordination. This asymmetry suggests that risk exposure primarily functions as a justification for unequal pay, rather than as an independent driver of team alignment. We also observe substantial individual-level heterogeneity. Differences in followers' willingness to coordinate with their leader are best explained by participants' risk tolerance and their beliefs about other team members' attitudes toward inequality. Finally, we replicate our main findings across participants from Europe and the United States. Although Europeans exhibit a generally higher propensity to follow their leader, the effects of pay and risk inequality on coordination are consistent across both groups.

What practical lessons can be drawn from our findings? Pay inequality between leaders and team members can weaken coordination, especially when leaders both receive a bonus and face less risk than their followers. This result aligns with prior work suggesting that the most effective leaders are those who incur personal costs on behalf of their teams (Arbak and Villeval, 2013; Van Knippenberg and Van Knippenberg, 2005). While many leadership positions are designed to offer high pay and limited risk, our results suggest that leadership is most effective when compensation reflects the leader's exposure to risk. In other words, pay inequality is more readily accepted when it is proportional to risk inequality. Our data also show that team members are generally inclined to follow their leader's example when incentives are aligned. This finding echoes results from a recent field experiment by Cullen and Perez-Truglia (2022), which found that vertical pay inequality between managers and employees does not necessarily harm individual performance. However, the underlying mechanisms differ: in their study, high pay gaps motivate employees through career incentives, whereas in our setting, team members respond to the personal risk undertaken by the leader. These differences underscore that the consequences of vertical pay inequality depend critically on the broader incentive environment and how leadership is enacted. Taken together, our findings illustrate how differences in the incentives of leaders and followers can promote or undermine team coordination. In doing so, they contribute to a broader debate on incentive design, offering practical insights for organizational design (see also Cooper et al., 2024).

The paper is organized as follows. Section 2 discusses related literature. Section 3 presents the design and theoretical framework of our main experiment. Section 4 presents the main experimental results. Section 5 concludes.

## 2 Related literature

Our study lies at the intersection of leadership research in management, social psychology, and economics.

A growing body of work in the organizational literature emphasizes the importance of context in shaping leadership effectiveness. Context refers to the situational factors—opportunities, constraints, and expectations—that influence behavior and meaning (Johns, 2006, 2024). While long recognized as important, contextual factors remain underexamined in leadership research. We contribute to the literature on contextual leadership by investigating how two key features of the leader's environment—risk exposure and pay inequality—influence the effectiveness of leading by example. This complements recent calls to incorporate richer contextual variables into leadership research to address issues of omitted variable bias and improve theoretical precision (Johns, 2024; Oc, 2018). For example, cross-national studies that examine differences in leadership effectiveness across countries (e.g., between the U.S. and Europe) may risk attributing outcomes to culture or style, when they may in fact reflect underlying differences in pay inequality. Our study shows that leader effectiveness depends not only on behavior but on the surrounding incentive structures (see also Robbins et al., 2024), which can vary significantly across organizational and national settings.

We also connect our study to the literature on transformational leadership, which emphasizes a leader's ability to inspire and motivate team members through vision, identity, and personal commitment to shared goals (e.g., Bass, 1990; Shamir et al., 1993; Conger and Kanungo, 1994). In this tradition, effective leadership is not merely about outcomes but also about perception: leaders who incur personal costs are often seen as more credible and trustworthy (e.g., Van Knippenberg and Van Knippenberg, 2005; Yang et al., 2023). Our design captures this dynamic by examining how risk-taking—leaders voluntarily exposing themselves to downside risk—can enhance perceived legitimacy. In this sense, our study speaks directly to the literature on leader self-sacrifice, showing that personal risk can signal commitment, enhance social credibility (Cooper et al., 2020), and sustain cooperation around ambitious or uncertain goals.

Our work also contributes to the experimental economics literature on leadership, which has examined the role of leaders in facilitating coordination and improving group outcomes. Brandts and Cooper (2006, 2007), Brandts et al. (2007), Brandts et al. (2015), and Brandts et al. (2016) study how leadership can help teams break out of low-performance traps.[4] Weber et al. (2004), Cartright et al. (2013), Sahin et al. (2015), Gächter and Renner (2018) and Eisenkopf (2020) study leading by example and leader communication in coordination, public goods, and contest games, in the absence of pay or risk inequality. Feldhaus et al. (2020) study coordination games with asymmetric benefits and costs, showing that players with high benefits and low costs emerge as leaders. We show that the same conditions may also undermine followership. Other studies on leading by example include Potters et al. (2007), who demonstrate that leaders are effective when signaling private information about a project's return, and Jack and Recalde (2015), who conduct a field experiment in rural Bolivia showing that observable leader characteristics affect the likelihood that others follow. Harbring and Irlenbusch (2008) and Balafoutas et al. (2012) show that managerial performance bonuses can lower leaders' cooperativeness, while Nikiforakis et al. (2019) show that managerial performance bonuses can cause leaders to coerce their subordinates into exerting unfairly high effort levels. By focusing on team members' perceptions of the leader, we highlight a new channel through which leader bonuses can interfere with team performance, and we show that risk inequality is a crucial alleviating factor. We refer to Cooper and Weber (2020) and Garretsen et al. (2020) for excellent overview articles, including perspectives on incorporating economic methods into leadership research.

The consequences of the pay inequality between leaders and followers have also received considerable attention in the empirical management literature. Studies typically focus on the trade-off between the incentive potential of pay dispersion and its inequality-driven disruptiveness (e.g., Bebchuk and Fried, 2004; Downes and Choi, 2014). Some studies suggest that pay inequality can be detrimental to performance in interdependent work settings (e.g., Bloom, 1999; Guo et al., 2017). Other studies, however, find that social comparisons induced by pay transparency do not have an adverse effect on team collaboration (Ohlmer and Sasson, 2018; Long and Nasiry, 2020; Obloj and Zenger, 2022). Shaw and Gupta (2007) and Trevor et al. (2012) differentiate between pay inequality explained by productivity-relevant inputs and pay inequality that is independent of an individual's performance, and show that the former type of inequality does not adversely affect team collaboration. Similarly, our findings highlight that leaders' risk exposure can reduce the deleterious impact of pay inequality on team coordination. Importantly, in our context, all risk is strategic in nature, that is,

[4]See also Andreoni et al. (2021) who study coordination in the context of norm change.

there are no lotteries or chance events.

# 3 The experiment

## 3.1 Sample

The experimental sessions were conducted between July and September 2023 on Prolific.com, an online platform for surveys and experiments. Our sample consists of 2,030 participants, with 1,513 participants in the role of team members and 517 participants in the leader role. Approximately half the participants are U.S. citizens (1,063). The other half are from the Netherlands (440), France (257), Sweden (116), Finland (74), Denmark (40), Norway (33), and Iceland (7). Overall, 53% of the participants are male. The average age is 35, with a minimum of 18 and a standard deviation of 13. Earnings averaged an hourly rate of $28.90. The median completion time was 12 minutes.

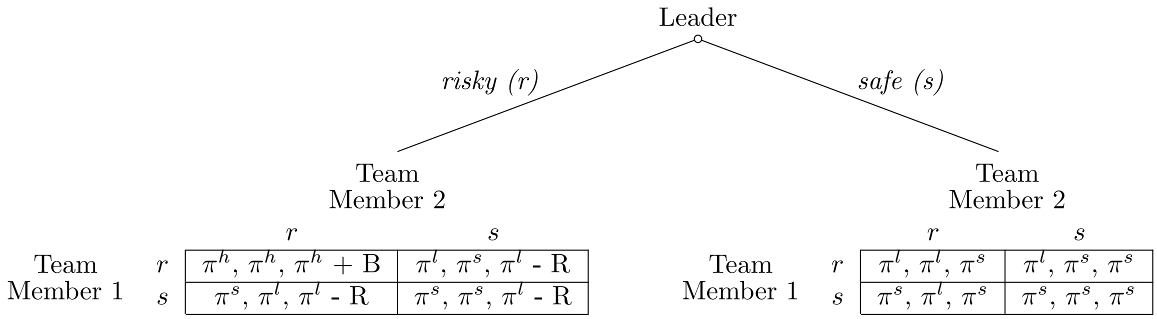
## 3.2 Strategic setting

Participants faced the following strategic problem. Three players in a team choose between a *risky* project and a *safe* project. The risky project generates the highest payoff for everyone, but only if all players choose it. If the group fails to coordinate on the risky project, a player who chooses it earns a low payoff. In contrast, a player who chooses the safe project earns an intermediate payoff—higher than the low payoff but lower than the high payoff—regardless of what others choose. The safe project is particularly attractive when there is uncertainty about the choices of other players.

Figure 1 illustrates the structure of the task and the sequence of decisions. One of the three participants in each group is randomly assigned the role of the *leader*, who makes the first choice: whether to pursue a *risky* project or a *safe* one. After observing the leader's decision, the remaining two participants—referred to as *team members*—make their choices independently and at the same time. They must decide whether to join the leader in selecting the risky project or to opt for the safer alternative.

Figure 1 also displays the outcomes for each combination of decisions. In each cell, the first number indicates the payoff for team member 1, the second for team member 2, and the third for the leader. A player who chooses the *safe* project receives a guaranteed payoff of $\pi^s = \$4$, regardless of what others do. If all three players select the risky project, each team member earns $\pi^h = \$4.75$, and the leader receives $\pi^h + B$,

Figure 1: Strategic Setting




*Note:* The leader makes the first decision, choosing between a risky project and a safe project. The two team members then make their choices simultaneously, after observing the leader's decision. Each cell in the figure displays the payoffs for team member 1, team member 2, and the leader, in that order. The payoffs are ordered as $\pi^h > \pi^s > \pi^l$. In the experiment, $\pi^h = \$4.75$, $\pi^s = \$4$, and $\pi^l = \$2.75$. If the leader chooses the safe project, the best response for each team member is also to choose safe, regardless of what the other team member does. If the leader chooses the risky project, the team members face a coordination challenge: they each earn the high payoff only if everyone—including the leader—chooses risky. Otherwise, those choosing risky receive the lowest payoff. This structure resembles a classic stag-hunt game, where successful outcomes require a level of trust. The leader receives a bonus, $B \geq 0$, if the team coordinates on the risky project. Variable $R \in \mathcal{R}$ measures the leader's risk exposure in excess of that faced by the team members.

where $B \geq 0$ is a bonus for successful coordination. If one or more players opt for the safe project while another chooses risky, the player who selected risky receives a lower payoff: $\pi^l = \$2.75$ for team members, and $\pi^l - R$ for the leader. The parameter $R \in \mathcal{R}$ reflects the leader's additional exposure to downside risk compared to the team members. If $R = 0$, the leader and team members face equal risk. If $R > 0$, the leader faces more risk; if $R < 0$, the leader faces less.

Crucially, the financial incentives of the leader and the team members are aligned, regardless of the values of $B$ and $R$: all players earn the highest payoff when everyone chooses the risky project. However, this alignment does not remove the uncertainty each player faces about what others will do. Because success depends on everyone making the same choice, the situation requires mutual trust and shared expectations. In this context, the leader as the first-mover plays a vital role in reducing uncertainty and helping the team coordinate on the high-payoff outcome.

Table 1: Treatments

| Treatment | Subjects | Leaders | Team Members | Leader Bonus ($B$) | Leader Risk Exposure ($R$) | BOA if $\alpha = 0$ | $\alpha = 1/4$ |
|---|---|---|---|---|---|---|---|
| 1. *No Leader* | 224 | – | 224 | – | – | 0.375 | 0.459 |
| 2. *NoBonus-LessRisk* | 307 | 78 | 229 | \$0.00 | -\$1.25 | 0.375 | 0.531 |
| 3. *NoBonus-SameRisk* | 306 | 90 | 216 | \$0.00 | \$0.00 | 0.375 | 0.595 |
| 4. *Bonus-LessRisk* | 297 | 81 | 216 | \$5.25 | -\$1.25 | 0.375 | 0.000 |
| 5. *Bonus-SameRisk* | 311 | 88 | 223 | \$5.25 | \$0.00 | 0.375 | 0.063 |
| 6. *Bonus-MoreRisk* | 585 | 180 | 405 | \$5.25 | \$2.75 | 0.375 | 0.444 |
| Total | 2,030 | 517 | 1,513 | | | | |

*Notes:* Each participant was randomly assigned to one of six treatments that varied the leader's bonus ($B$) and risk exposure ($R$). In the *No Leader* condition, the two team members make their choices simultaneously, without observing a leader's decision. Treatment 6 (*Bonus-MoreRisk*) includes two subtreatments with identical leader incentives. In one of these, participants choose whether they prefer to take on the role of leader or team member. BOA refers to the Basin Of Attraction of the risky-project outcome. A larger BOA indicates that the team is more likely to achieve the high-payoff outcome. We report BOA values for two illustrative cases: $\alpha_i = 0$, where team members are indifferent to pay inequality, and $\alpha_i = 0.25$, where team members exhibit mild aversion to pay inequality.

## 3.3 Treatments

In our experiment, pay inequality is introduced by awarding leaders a bonus ($B$) when the risky project succeeds—a bonus that team members do not receive. Risk inequality is created by varying the losses the leader incurs ($R$) when the risky project fails, relative to the losses faced by team members. Coordination is measured by whether team members choose to follow the leader's example. Specifically, coordination is considered successful if all three individuals—the leader and both team members—choose the risky project. While it is technically possible to coordinate on the safe project, that outcome is less desirable because it yields a lower collective payoff. This design allows us to directly measure coordination outcomes and link them to variation in the leader's incentives, which are randomly assigned to enable causal inference.

A team member's incentives are fixed across treatments. Team members earn $\pi^s =$ \$4 if they choose the safe project, regardless of others' choices. If they choose the risky project, they earn $\pi^h = \$4.75$ if everyone in the team also chooses the risky project, but only $\pi^l = \$2.75$ if at least one other person does not choose the risky project. The treatments vary the leader's bonus ($B$) and risk exposure ($R$), as summarized in Table 1. Each participant is assigned to only one treatment.

The first condition, No Leader, serves as a benchmark for understanding coordination in the absence of leadership. In this treatment, the two team members make their decisions simultaneously and independently, with no leader setting an example. All other treatments include a leader, who moves first, and vary the leader's bonus and risk exposure. Columns 5 and 6 in Table 1 show the specific bonus and risk levels used in each treatment. The final column reports the basin of attraction (BOA) for the risky project—a theoretical measure of how likely coordination is—that we discuss in the next section.

In treatments 2 and 3, the leader does not receive a bonus ($B = 0$), meaning there is no pay inequality. However, the leader's exposure to risk varies. When $R = -1.25$, the leader faces less risk than the team members. In this case, if the risky project fails, the leader earns $\pi^l - (-\$1.25) = \$4$, which equals the team members' fixed payoff for the safe project. When $R = 0$, the leader and team members face the same risk, and the leader earns $\pi^l = \$2.75$ if coordination fails. By comparing these two treatments, we test whether reduced leader risk—absent any pay inequality—undermines their effectiveness.[5]

In treatments 4–6, the leader receives a bonus of $B = 5.25$, raising their maximum payoff (when coordination succeeds) to $\pi^h + B = \$10$. These treatments vary the leader's risk exposure over $R = \{-1.25, 0, 2.75\}$. When $R = -1.25$, the leader faces less risk than the team members—benefiting from both a higher reward and lower downside. When $R = 0$, risk exposure is equal across roles. When $R = 2.75$, the leader takes on more risk than team members, earning nothing ($\pi^l - R = \$0$) if coordination fails.

Our experimental design allows us to isolate the causal effects of leader pay and risk inequality on team coordination. For example, in treatments 4–6, we hold the bonus fixed at $B = 5.25$ while varying $R$ across three levels to test whether greater risk exposure helps justify higher pay. Similarly, by comparing treatments 3 and 5 (where $R = 0$ but $B$ differs), we test whether introducing pay inequality—absent any change in risk—reduces the leader's ability to foster coordination. In this way, we disentangle the individual and combined effects of pay and risk inequality on leadership effectiveness.

To explore how leader selection might affect outcomes, we divided treatment 6

[5]We did not include a treatment with no bonus ($B = 0$) and higher leader risk ($R > 0$) for two reasons. First, we expected team members would generally follow the leader's example unless the leader held a clear advantage in either bonus or risk, making this case less informative. Second, treatments 4–6 already examine three levels of risk inequality for a fixed bonus, allowing us to study the effects of leader risk exposure.

($B = 5.25$, $R = 2.75$) into two subtreatments, each with the same leader incentives. In one subtreatment, the leader was randomly assigned (as in all other treatments); in the other, participants chose whether they preferred to be the leader or a team member. For simplicity, we pool these two groups in our main analysis, which focuses on follower behavior, and show in Online Appendix B.4 that the results are consistent across the two subtreatments.

What information do participants have when making their decisions? All participants are fully informed about the structure of the decision task, including the payoffs and the order of moves. The leader chooses between the *risky* and *safe* projects, knowing that their decision will be observed by the team members. Each team member then makes their decision independently, without knowing what the other teammate will do. To ensure understanding, all participants must complete a comprehension quiz where they are asked to calculate the payoffs for the leader and team members under every possible combination of decisions.[6] Full instructions and screenshots of the interface are provided in Online Appendix A.

## 3.4 Theoretical hypotheses

In this section, we develop a formal model to examine how leading by example affects coordination within teams. The model is grounded in the following intuition: when a leader acts first and chooses the risky project, this decision can serve as a focal point around which the rest of the team may coordinate their actions. However, the strength or credibility of the leader's signal depends on the leader's trade-off between extra pay and risk, compared to that of the followers. Specifically, when the leaders' potential bonus is large relative to the risk they face, their decision may not reflect the same trade-off that team members are asked to make—weakening the signal and reducing the likelihood of coordination. In contrast, if the leader receives no bonus or takes on substantial personal risk, their choice more closely mirrors the team's challenge. In such cases, the leader's action is more likely to be interpreted as a credible commitment

[6]The number of observations in Table 1 includes only individuals who passed a comprehension quiz at the end of the instructions. Those who failed after three attempts were not allowed to proceed and no data were collected for them. Exclusions based on comprehension checks can raise concerns about treatment-specific attrition (e.g., Varaine, 2023). However, the overall failure rate was low (7.9%) in our setting and similar across treatments with a leader, ranging from 5% to 9%. Moreover, treatments only varied in payoff numbers, not in complexity, making it unlikely that comprehension was systematically affected by treatment assignment.

to the team's success, and thus a stronger basis for coordination.[7]

To formalize this intuition, we build on two key concepts from game theory and behavioral economics: inequality aversion and risk dominance. Inequality aversion captures the notion that individuals care not only about their own payoffs, but also about how their outcomes compared to those of others (e.g., Fehr and Schmidt, 1999; Charness and Rabin, 2002). When facing choices that create unequal outcomes—such as a leader receiving a large bonus while the team shares the risk—inequality averse followers may be inclined to take actions that minimize the inequality in earnings. Formally, the utility of team member $i$ is defined as:

$$u_i(\pi) = \pi_i - \alpha_i \sum_{j \neq i} |\pi_i - \pi_j| \tag{1}$$

where $\pi$ is the vector of monetary payoffs, $\pi_i$ the payoff of $i$ and $\alpha_i \geq 0$ captures the individual's sensitivity to inequality. The second term represents the total absolute difference between $i$'s payoff and that of the other players, weighted by $\alpha_i$.[8] While the most straightforward interpretation of equation (1) is that individuals have a preference for equality, an alternative interpretation draws from social identity theory. If a leader's incentives resemble those of their team, followers may view the leader as "one of us," increasing their identification with the leader and thus their willingness to follow (e.g., Akerlof and Kranton, 2000; Hogg, 2001; Van Knippenberg and Van Knippenberg, 2005). As discussed in Section 2, the strength of inequality aversion, captured by $\alpha_i$, can be viewed as a proxy for how team members perceive the leader. Leaders with "skin in the game"—who take on similar or greater personal risks—are more likely to be seen as transformational (Antonakis, 2012) or credible (Cooper et al., 2020).

Given this setup, we derive the Nash equilibria of the game (Nash, 1950). A Nash equilibrium describes a situation where no player has an incentive to deviate from

[7] See Knez and Camerer (1994) and Cachon and Camerer (1996) for discussions of the role of expectations in coordination games: beliefs in team production games are described as "mental factors of production" and "expectational assets (or liabilities)".

[8] The literature distinguishes between inequality aversion stemming from envy (disliking lower payoffs than others) and guilt (disliking higher payoffs than others). Both are relevant here: envy may make team members less willing to follow leaders with large bonuses, while guilt may make them more willing to follow leaders who face higher risk. Although one can model these asymmetries using separate parameters, doing so is not necessary for our purposes. Also, while some models use the average rather than the sum of payoff differences, this choice is inconsequential here because the team size is fixed.

their chosen action, given their expectations about the choices of others—and those expectations turn out to be correct. In our context, the game yields two such equilibria in pure strategies. In the first, all players choose the safe project. This outcome is an equilibrium because any unilateral deviation would reduce the deviator's payoff. The second equilibrium occurs when the leader and both team members choose the risky project. This equilibrium leads to a higher monetary payoff for everyone, but each team member must believe that the other will also follow the leader's example. If one team member expects the other to choose the safe project, their best response is to do the same. Although the safe project offers a lower overall payoff, it minimizes the individual risk associated with the uncertainty of others' choices. Thus, the team may fail to coordinate, not because of conflicting interests, but because of uncertainty about others' actions.

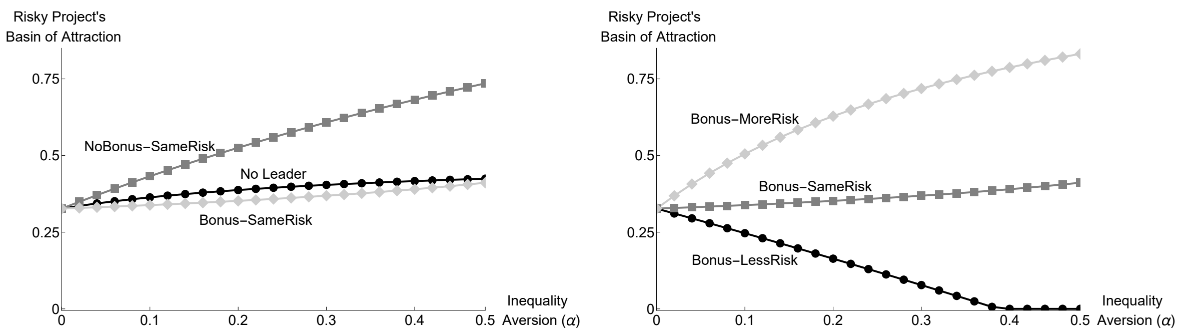
This brings us to the concept of risk dominance, an idea that helps explain how players choose between multiple equilibria. Risk dominance suggests that when faced with uncertainty, individuals may favor the safer option—even if it is not the most rewarding—because it minimizes the downside risk of miscoordination (Harsanyi and Selten, 1988). Empirical research supports this logic: in practice, people often prioritize minimizing potential losses over maximizing gains when outcomes depend on others' behavior (e.g., Camerer, 2011; Dal Bó et al., 2021). In our framework, we use the concept of the basin of attraction (BOA) to formalize risk dominance. The BOA for the risky-project equilibrium—denoted $\phi_\alpha$— represents the maximum probability a player can assign to the other player choosing the safe project while still finding it optimal to choose the risky project. For example, if the BOA is 0.50, this means that a player will choose the risky project so long as they believe the other team member will do the same with at least 50% probability. The larger the BOA, the more likely the team is to achieve coordination. The risky project's BOA is given by:

$$\phi_\alpha = 1 - \frac{(1-\alpha_i)(\pi^s - \pi^l)}{\pi^h - \pi^l + \alpha_i(\pi^s - \pi^l + R - B)} \tag{2}$$

The final column of Table 1 reports the basin of attraction (BOA) for the risky-project equilibrium under two levels of inequality aversion: $\alpha_i = 0$ (no concern for inequality) and $\alpha_i = 0.25$ (moderate concern). When team members are indifferent to inequality, the BOA is the same across all treatments. However, when they do care

Figure 2: Predicted effects of leader incentives on team coordination

(a) Leader Bonus Undermines Coordination (b) Leader Risk Exposure Promotes Coordination




*Note:* The figure illustrates how the size of the basin of attraction (BOA) for the risky-project outcome varies with team members' sensitivity to pay inequality and with different leader incentives. Panel (a) shows that introducing a leader without a bonus increases the likelihood of successful coordination, but adding a bonus reduces this benefit. Panel (b) shows that when leaders receive a bonus, their ability to promote coordination improves as their exposure to risk increases. Larger BOA values indicate a wider range of preferences under which teams are expected to coordinate on the risky project.

about unequal pay, the BOA shrinks in treatments where the leader receives a bonus, and it expands when the leader is exposed to more risk. Figure 2 further illustrates these relationships by showing how the BOA varies with the inequality aversion parameter ($\alpha_i$) under different experimental conditions. As shown in Figure 2a, simply introducing a leader who faces the same payoffs as team members (i.e., moving from the *No Leader* to the *NoBonus-SameRisk* condition) increases the BOA, making successful coordination more likely. However, when the leader receives a bonus without taking on additional risk (*Bonus-SameRisk*), the size of the BOA declines—falling slightly below the no-leader benchmark. Figure 2b shows that when leader bonuses are held constant, increasing the leader's exposure to risk improves the chances of coordination by enlarging the BOA.

These observations lead to the following hypotheses.

**Hypothesis 1:** *The team members' probability of choosing the risky project is higher in a team with a leader whose incentives are symmetric to those of the team members (i.e., $B = 0$ and $R = 0$) than in a team with no leader.*

This hypothesis is illustrated in Figure 2a: the leader's presence increases the BOA of the risky project when $B = 0$ and $R = 0$, as inequality-averse team members are more motivated to coordinate with the leader's example.

**Hypothesis 2:** *Increasing the leader's bonus (B) decreases the team members' probability of following the leader in choosing the risky project.*

The second hypothesis follows because $\partial \phi_\alpha / \partial B < 0$, meaning that increasing the leader's bonus reduces the BOA of the risky project. Favorable incentives for the leader undermine her ability to effectively coordinate the team. This effect is illustrated in Figure 2a, where the *NoBonus-SameRisk* scenario shows a larger BOA compared to the *Bonus-SameRisk* scenario.

**Hypothesis 3:** *Increasing the leader's risk exposure (R) increases the team members' probability of following the leader in choosing the risky project.*

The third hypothesis follows because $\partial \phi_\alpha / \partial R > 0$, indicating that the BOA of the risky project increases with the leader's risk exposure. This prediction is illustrated in Figure 2b: the BOA expands even though the payoff inequality remains unchanged when everyone coordinates on the risky project. Team members are more willing to accept the potential pay inequality associated with the risky project due to the risk of miscoordination, which would disproportionately harm the leader.

**Hypothesis 4:** *The probability of the leader and the team members all choosing the risky project decreases with the leader's bonus (B) and increases with the leader's risk exposure (R).*

Hypothesis 4 concerns overall coordination—that is, whether the entire team selects the risky project and achieves the efficient outcome. This depends not only on whether team members are willing to follow the leader (as in Hypotheses 2 and 3) but also on whether the leader is willing to take the first step by choosing the risky project. A key tension arises here: while greater risk exposure can enhance the leader's credibility and increase team members' willingness to follow, it may also discourage the leader from choosing the risky project in the first place. Similarly, generous bonuses may motivate the leader to take the lead, but reduce the likelihood that team members interpret her action as sincere. Hypothesis 4 captures this potential trade-off, allowing us to test whether, on balance, leader incentives ultimately support or hinder successful team coordination.

We next turn to individual heterogeneity.

**Hypothesis 5:** *The probability that a team member follows the leader in choosing the risky project increases with the team member's (beliefs about) inequality tolerance and risk tolerance.*

Whereas Hypotheses 1–4 examine how leader incentives shape coordination outcomes on average, Hypothesis 5 focuses on differences in behavior across individuals facing the same incentives. Specifically, it predicts that participants who are more tolerant of inequality—or who believe others are more tolerant—will be more likely to follow the leader's example, especially when the leader receives a high bonus. Formally, we expect coordination behavior to vary with $\alpha_i$, the individual's sensitivity to pay inequality. We find that ${}^{\partial\phi_\alpha}/_{\partial\alpha_i} < 0$ if $B - R > \pi^h + \pi^s - 2\pi^l$, which means that a higher $\alpha_i$ reduces the basin of attraction of the risky project when the leader's bonus is large relative their risk exposure. Thus, inequality-averse participants should be less likely to follow a highly paid leader. Similarly, participants who are more tolerant of risk are less deterred by strategic uncertainty and thus more likely to choose the risky project, all else equal.[9]

Lastly, we consider differences between the European and U.S. samples.

**Hypothesis 6:** *The adverse effects of bonuses on coordination will be stronger in the European sample than in the U.S. sample.*

A growing literature documents cross-country differences in attitudes toward fairness (e.g., Falk et al., 2018; Cappelen et al., 2023). For example, Almås et al. (2020) show that Americans are substantially more accepting of inequality than Norwegians when making distributive decisions in identical economic environments. Americans are less likely to divide resources equally and more likely to retain them entirely, suggesting lower values of the inequality aversion parameter $\alpha_i$. Importantly, these patterns mirror broader societal differences: the same study shows that participants' choices imply Gini coefficients closely aligned with their home countries' actual income distributions. Applied to our setting, these findings suggest that European participants may exhibit stronger aversion to inequality than their U.S. counterparts. Consistent with this, the European countries in our sample—including the Netherlands, France, Sweden, Finland, Denmark, Norway, and Iceland—have considerably lower Gini coefficients than the U.S.[10] We therefore expect that pay inequality will have a larger negative impact on coordination among European participants, who are more sensitive to fairness concerns.

[9] We also considered the role of risk aversion. As expected, risk aversion reduces the BOA of the risky project, reflecting a greater sensitivity to uncertainty.

[10] According to The World Bank, the Gini coefficient in the U.S. is 39.8. For comparison: Netherlands (26.0), France (30.7), Sweden (28.9), Finland (27.1), Denmark (27.5), Norway (27.7), and Iceland (26.1). See https://data.worldbank.org/indicator/SI.POV.GINI.

We pre-registered our theoretical model and the associated hypotheses on the AEA Social Science Registry (see AEARCTR-0011326).[11] During the course of the project, we introduced two changes to the original design. First, we added a treatment (*NoBonus-LessRisk*) to complete the experimental design. This treatment allows us to examine the effect of lowering the leader's risk exposure in the absence of pay inequality. We updated the pre-registration prior to collecting data for this condition. Second, we broadened the definition of the European subsample. Initially, we planned to restrict it to Nordic countries; however, due to subject availability, we expanded it to include participants from the Netherlands and France. This adjustment was also made before data collection and reflected in an updated pre-registration. Hypothesis 6, which is the only one affected by this change, will be tested both for the full European sample and separately for the Nordic subset.

## 3.5 Elicitation of risk and fairness attitudes

To better understand the drivers of individual behavior, we elicit risk tolerance, inequality aversion, and beliefs about others' inequality aversion. We randomize whether these elicitation tasks occur before or after the main experiment. Participants receive no feedback until the end of the session. The results are unaffected by the order of tasks (see Online Appendix B.2).

Risk attitudes are elicited using two measures. First, participants choose one of six lotteries: an 80% chance of $0.40, 70% chance of $0.60, 60% chance of $0.80, 50% chance of $1.00, 40% chance of $1.20, or 30% chance of $1.40. Choosing a safer lottery indicates greater risk aversion. Second, participants indicate their general willingness to take risks on a ten-point scale. As a proxy for individual risk tolerance, we use the average of the normalized lottery choice and self-reported measure, to reduce measurement error. Our main results are robust to using each measure separately (see Online Appendix B.1).

Inequality aversion is measured using a simple distribution task. Participants choose between two options for allocating money between themselves and a randomly selected participant. The first option gives $0.475 to oneself and $1 to the other

[11] For clarity, the hypotheses presented in the manuscript have been renumbered and linguistically simplified relative to the pre-registration, but their substantive content remains unchanged. The sample includes about 200 independent observations per treatment—100 from U.S. participants and 100 from European participants. These numbers refer to team members only, as the hypotheses are based on follower behavior.

person—mirroring the relative payoffs of team members and leaders in the successful risky-project scenario. The second option provides an equal payment of $0.40 to both individuals, resembling the safe-project outcome. Participants also indicate, on a ten-point scale, whether they generally prefer to avoid or accept inequality. As with risk, we average the two (normalized) measures to form a single proxy for inequality aversion. Results are consistent when each measure is used separately (see Online Appendix B.1).

Beliefs about inequality tolerance are elicited by asking participants to guess the percentage of other participants who selected the unequal distribution in the task above. We incentivize accuracy by paying $1 if their guess falls within 5 percentage points of the correct value.

# 4 Results

Table 2 summarizes the core outcomes of each experimental treatment, including team members' willingness to follow their leader, leader choices, coordination success rates, and the resulting payoffs. We organize the analysis by research question, beginning with whether leaders improve team performance compared to settings without a leader.

## 4.1 Leaders improve team performance

In treatment 1 (*No Leader*), only 25.9% of team members choose the risky project. Coordination on the safe project occurs in 54.9% of cases, while miscoordination—where the two players make different choices—occurs in 38.4% of cases. Successful coordination on the risky project, where both team members choose it, is achieved in just 6.7% of cases. These figures underscore the challenge of achieving efficient outcomes when team members must act without guidance. In fact, the average team member payoff in this leaderless setting is 25.3% *less* than the $4 payoff from the safe project benchmark.

We begin by comparing this benchmark to settings in which a leader is present.

**Finding 1:** *The presence of a leader increases the likelihood of successful coordination on the risky project and increases team members' earnings.*

*Support:* In treatment 3 (*NoBonus-SameRisk*), where the leader faces the same incentives as team members (i.e., no bonus and equal risk), the probability that a team

Table 2: Probability of Risky Project and Team Outcomes

| | Team Members $Pr(risky \mid \text{leader chose } risky)$ | Leaders $Pr(risky)$ | Outcome Distribution (safe, miscoord., risky) | | | Team Members' Payoff Gain (relative to safe) |
|---|---|---|---|---|---|---|
| 1. *No Leader* | 25.9% | – | 54.9% | 38.4% | 6.7% | -25.3% |
| 2. *NoBonus-LessRisk* | 68.6% | 83.3% | 16.7% | 44.1% | 39.2% | 9.3% |
| 3. *NoBonus-SameRisk* | 69.1% | 38.9% | 61.1% | 20.3% | 18.5% | 4.6% |
| 4. *Bonus-LessRisk* | 59.5% | 96.3% | 3.2% | 62.7% | 34.0% | -5.0% |
| 5. *Bonus-SameRisk* | 70.5% | 78.4% | 21.6% | 39.4% | 39.0% | 11.8% |
| 6. *Bonus-MoreRisk* | 75.7% | 67.2% | 28.6% | 32.8% | 38.5% | 14.4% |

*Notes:* Table 2 shows the percentage of team members who choose the risky project conditional on the leader having done so (except in No Leader, where the percentage is unconditional), the probability of leaders choosing the risky project, the distribution of outcomes (everyone chooses the safe project, players miscoordinate, or everyone chooses the risky project), and team members' payoff gain relative to the safe project payoff of $4.

member follows a leader who chooses the risky project rises to 69.1%—a significant increase relative to the No Leader condition (Wilcoxon rank-sum, $p < .001$). This behavioral shift translates into better outcomes: although leaders choose the risky project only 38.9% of the time, the probability of full coordination on the risky project increases to 18.5%, nearly triple the rate without a leader. Miscoordination also falls sharply, from 38.4% to 20.3%, and team members earn 4.6% *more* than the safe-project benchmark—compared to a 25.3% shortfall in the No Leader condition ($p < .001$). Looking across all treatments with a leader (treatments 2–6), we find consistent improvements. The average probability of a successful risky project rises to 34.7%, while the average payoff gain for team members climbs to 8.6% relative to the safe benchmark (both $p < .001$). These results provide clear evidence that leaders enhance coordination and overall team performance, consistent with Hypothesis 1 and previous findings in the literature.

## 4.2 Does pay inequality undermine effective leadership?

**Finding 2:** *Leader bonuses ($B > 0$) decrease the probability that team members follow the leader in choosing the risky project, but only when the leader also faces less risk than followers.*

*Support:* Table 2 shows that the likelihood of team members following the leader's choice of the risky project is lowest in treatment 4 (*Bonus-LessRisk*), at 59.5%. In contrast, in treatment 2 (*NoBonus-LessRisk*)—which is identical except that the leader does not receive a bonus—the followership rate rises to 68.6% (Wilcoxon rank-sum, $p$ = .059). While this $p$-value is slightly above the conventional 5% threshold, additional regression analyses indicate a statistically significant effect. Table 3 presents the coefficients from OLS regressions estimating the probability that a team member follows the leader in choosing the risky project. The reference category is treatment 1 (*No Leader*). Models (1), (3), (4), and (5) show that team members are significantly more likely to follow the leader in treatment 2 than in treatment 4 (Wald test, $p$ = .045). However, this pattern does not extend to settings where the leader faces equal risk. The probability of following the leader is virtually identical in treatment 3 (*NoBonus-SameRisk*) and treatment 5 (*Bonus-SameRisk*)—69.1% versus 70.5%, respectively (Wilcoxon rank-sum, $p$ = .758). This finding illustrates the boundary conditions of the negative effect of bonuses: when leaders are exposed to the same risk as team members, pay inequality has little discernible impact on followership. Hence, these results provide partial support for Hypothesis 2, while also identifying conditions under which the hypothesis does not hold.

## 4.3 Does risk exposure justify pay inequality?

**Finding 3:** *Increased leader risk exposure ($R > 0$) raises the probability that team members follow the leader in choosing the risky project. This effect occurs because the greater personal risk borne by the leader offsets concerns about pay inequality.*

*Support:* Table 2 shows that the probability of team members following the leader increases from 59.5% in treatment 4 (*Bonus-LessRisk*) to 70.5% in treatment 5 (*Bonus-SameRisk*) (Wilcoxon rank-sum, $p$ = .024), and further to 75.7% in treatment 6 (*Bonus-MoreRisk*) ($p$ < .001). While the increase from treatment 5 to treatment 6 is not statistically significant ($p$ = .199), it is directionally consistent with the prediction that greater risk exposure strengthens the leader's credibility. The diminishing size of the effect suggests that the benefit of additional risk exposure tapers off at higher levels. Comparing treatments more broadly, those in which leaders face equal or greater risk than their team members are associated with significantly higher followership than treatments where leaders face less risk ($p$ = .004). Interestingly, when there is no bonus, varying the leader's risk exposure has no discernible effect: the probability of following the leader is nearly identical in treatment 2 (*NoBonus-LessRisk*) and treatment

Table 3: OLS Regressions – Choosing the Risky Project

| *Dep Var:* $Pr(risky \mid \text{leader chose } risky)$ | (1) | (2) | (3) | (4) | (5) | (6) | (7) |
|---|---|---|---|---|---|---|---|
| NoBonus-LessRisk | 0.427*** | | 0.412*** | 0.409*** | 0.383*** | | |
| | (0.044) | | (0.044) | (0.044) | (0.069) | | |
| NoBonus-SameRisk | 0.432*** | | 0.408*** | 0.401*** | 0.405*** | | |
| | (0.045) | | (0.044) | (0.044) | (0.068) | | |
| Bonus-LessRisk | 0.336*** | | 0.321*** | 0.316*** | 0.308*** | | |
| | (0.047) | | (0.046) | (0.046) | (0.071) | | |
| Bonus-SameRisk | 0.446*** | | 0.412*** | 0.408*** | 0.405*** | | |
| | (0.044) | | (0.045) | (0.045) | (0.069) | | |
| Bonus-MoreRisk | 0.498*** | | 0.475*** | 0.470*** | 0.443*** | | |
| | (0.038) | | (0.038) | (0.038) | (0.061) | | |
| Risk tolerant | | 0.365*** | 0.350*** | 0.340*** | | | |
| | | (0.068) | (0.064) | (0.064) | | | |
| Inequality tolerant | | 0.033 | 0.019 | 0.012 | | | |
| | | (0.061) | (0.055) | (0.055) | | | |
| Belief ineq. tolerance | | 0.246*** | 0.181*** | 0.170*** | | | |
| | | (0.060) | (0.056) | (0.056) | | | |
| US | | | | -0.058** | -0.127** | -0.075*** | -0.046* |
| | | | | (0.025) | (0.062) | (0.028) | (0.028) |
| NoBonus-LessRisk x US | | | | | 0.065 | | |
| | | | | | (0.090) | | |
| NoBonus-SameRisk x US | | | | | 0.016 | | |
| | | | | | (0.093) | | |
| Bonus-LessRisk x US | | | | | 0.025 | | |
| | | | | | (0.095) | | |
| Bonus-SameRisk x US | | | | | 0.055 | | |
| | | | | | (0.091) | | |
| Bonus-MoreRisk x US | | | | | 0.081 | | |
| | | | | | (0.079) | | |
| Bonus | | | | | | -0.095** | -0.320** |
| | | | | | | (0.048) | (0.163) |
| Risk Exposure | | | | | | -0.002 | -0.437*** |
| | | | | | | (0.047) | (0.155) |
| Bonus x Risk Exposure | | | | | | 0.146** | 0.678*** |
| | | | | | | (0.062) | (0.209) |
| Risk tolerant & Belief ineq. tolerance (RT&BIT) | | | | | | | 0.217 |
| | | | | | | | (0.189) |
| Bonus x RT&BIT | | | | | | | 0.408 |
| | | | | | | | (0.277) |
| Risk Exposure x RT&BIT | | | | | | | 0.750*** |
| | | | | | | | (0.254) |
| Bonus x Risk Exposure x RT&BIT | | | | | | | -0.948*** |
| | | | | | | | (0.346) |
| Constant | 0.259*** | 0.266*** | -0.021 | 0.029 | 0.337*** | 0.727*** | 0.591*** |
| | (0.029) | (0.046) | (0.047) | (0.053) | (0.051) | (0.035) | (0.113) |
| Observations | 1300 | 1300 | 1300 | 1300 | 1300 | 1076 | 1076 |
| $R^2$ | 0.125 | 0.048 | 0.159 | 0.162 | 0.134 | 0.019 | 0.064 |

Notes: * significant at 10%, ** significant at 5%, *** significant at 1%. The dependent variable is the team members' probability of choosing the risky project conditional on the leader having chosen the risky project. The reference treatment is treatment 1 (No Leader) in models (1), (2), (4) and (5). In model (3), participants with low risk and low (beliefs about) inequality tolerance are the reference group. In models (6) and (7), the reference treatment is treatment 2 (NoBonus-LessRisk), as treatment 1 is excluded because the regressors are undefined in the absence of a leader. Bonus is a dummy for treatments with a bonus. Risk Exposure is a dummy for treatments where the leader is exposed to the same or more risk than team members. The variable RT&BIT averages an individual's risk tolerance and belief about inequality tolerance measures (normalized between 0 and 1).

3 (*NoBonus-SameRisk*)—68.6% versus 69.1% (Wilcoxon rank-sum, $p = .922$). These results suggest that risk exposure mitigates the negative effect of pay inequality, which provides support Hypothesis 3. But in the absence of such inequality, risk exposure alone does not alter follower behavior.

Regression analyses in Table 3 confirm the patterns observed in the non-parametric tests. Across all model specifications, the coefficient for treatment 4 (*Bonus-LessRisk*) is significantly lower than that for treatment 5 (*Bonus-SameRisk*) (Wald test, $p = .040$) and treatment 6 (*Bonus-MoreRisk*) ($p < .001$). Meanwhile, the coefficients for treatments 2 and 3 do not differ ($p = .895$), reinforcing the idea that risk exposure serves to justify pay inequality rather than independently driving followership. In regression model (6), we include a dummy variable *Bonus* for treatments in which leaders receive a bonus, and a dummy *Risk Exposure* for treatments where the leader faces the same or greater risk than team members. Treatment 1 is excluded from this specification, as neither condition applies in the absence of a leader. The results show that bonuses reduce team members' willingness to follow the leader, but that this negative effect is offset when the leader is also exposed to risk. The significant interaction term, *Bonus* × *Risk Exposure*, confirms that leader risk exposure serves as a justification for pay inequality.

## 4.4 Leader behavior and team outcomes

**Finding 4:** *The probability of a successful risky project (i.e., both team members and the leader choose risky) does not significantly decrease with leader bonuses and does not significantly increase with leader risk exposure.*

*Support:* Table 2 reports the likelihood that leaders choose the risky project. Leaders are substantially more likely to initiate the risky project when it is tied to a bonus. For example, in the absence of a bonus, as in *NoBonus-SameRisk*, only 38.9% of leaders choose the risky project, compared to 78.4% in *Bonus-SameRisk* (Wilcoxon rank-sum, $p < .001$). This suggests that leaders are largely undeterred by the possibility that bonuses may discourage team members from following their lead.[12] However, increasing the leader's risk exposure appears to dampen their willingness to choose the

[12]We also find that leaders who are more tolerant of risk and pay inequality are more likely to initiate the risky project. In contrast, leaders' beliefs about others' inequality tolerance have no discernible impact on their decisions, indicating that leaders pay limited attention to how their own incentives might influence follower behavior.

risky project. This pattern is visible both when there is no bonus—compare *NoBonus-LessRisk* (83.3%) to *NoBonus-SameRisk* (38.9%)—and when a bonus is present—compare *Bonus-LessRisk* (96.3%), *Bonus-SameRisk* (78.4%), and *Bonus-MoreRisk* (67.2%). All pairwise comparisons are statistically significant ($p < .001$), except for the difference between *Bonus-SameRisk* and *Bonus-MoreRisk* ($p = .058$). As a result, although increased leader risk exposure enhances team members' willingness to follow, this does not necessarily lead to more frequent coordination on the risky project. The outcome distributions in Table 2 do not consistently support Hypothesis 4; that is, improvements in follower behavior are offset by declines in leader willingness to take the first step.

Interpreting the welfare effects of bonuses and risk exposure requires caution, as welfare outcomes are shaped by our experimental parameters—particularly the trade-off between avoiding miscoordination and promoting high-payoff risky coordination. For this reason, our main analysis focuses on team members' behavior conditional on the leader's choice. Still, the miscoordination rates shown in Table 2 are instructive. In *Bonus-LessRisk*, nearly all leaders initiate the risky project, but many team members opt for the safe option, resulting in coordination failure in 62.7% of the teams. Miscoordination declines as the gap between leader and follower incentives narrows: it falls to 39.4% in *Bonus-SameRisk*, 32.8% in *Bonus-MoreRisk*, and just 20.3% in *NoBonus-SameRisk*. Correspondingly, team members' average payoff gains relative to the safe project increase from –5.0% in *Bonus-LessRisk* to 11.8% in *Bonus-SameRisk* ($p < .001$) and 14.4% in *Bonus-MoreRisk* ($p < .001$).

The broader implication is that the likelihood leaders and their team members all choose the same project increases when leaders and followers face similar trade-offs between risk and reward. Misaligned incentives, particularly those that appear one-sided, undermine team cohesion and reduce the likelihood of successful outcomes.

## 4.5 Risk and fairness attitudes

We now turn to individual heterogeneity. Hypothesis 5 predicted that team members with greater tolerance in risk and pay inequality would be more likely to follow their leader. The data support this prediction, though with some important qualifications.

**Finding 5:** *Greater risk tolerance and beliefs that other team members are inequality-tolerant increase the probability that team members follow the leader. Moreover, the* *negative effect of pay inequality and the mitigating effect of leader risk exposure are most pronounced among team members who are relatively risk-averse and who believe that others are inequality-averse.*

*Support:* Regression models (2)–(4) in Table 3 examine the relationship between team members' followership and three elicited measures: risk tolerance, inequality tolerance, and beliefs about others' inequality tolerance (see Section 2.5). Each variable is normalized to lie between 0 and 1. The results show that both higher risk tolerance and stronger beliefs that others are inequality-tolerant significantly increase the likelihood that a team member follows the leader. The effects are substantial: in model (2), the difference in followership between a risk-averse and a risk-tolerant individual is 36.5 percentage points, and the difference between someone who believes others are inequality-averse versus inequality-tolerant is 24.6 percentage points. These effects remain robust when controlling for treatment and nationality in models (3) and (4). By contrast, a team member's own inequality tolerance does not significantly affect their decision to follow the leader. This pattern suggests that pay inequality introduces a layer of strategic uncertainty: followers are concerned not only with how unequal pay affects them directly, but also with how others perceive and respond to it.[13]

We also examine how these individual characteristics interact with leader incentives. Regression model (7) introduces a composite measure, Risk Tolerant & Belief Inequality Tolerance (RT&BIT), which averages a participant's normalized risk tolerance and their belief that others are inequality-tolerant. The estimates reveal that leader bonuses reduce followership by 32 percentage points among team members with low RT&BIT values—that is, those who are risk-averse and believe others are inequality-averse. These individuals are also the most responsive to leader risk exposure: the interaction term Bonus $\times$ Risk Exposure is positive and significant, indicating that higher leader risk exposure helps restore credibility and willingness to follow among this group. In contrast, participants with higher RT&BIT scores—those more tolerant of risk and optimistic about others' views on inequality—are less sensitive to both leader bonuses and variations in leader risk exposure.[14]

[13] Inequality tolerance becomes statistically significant if beliefs about others' inequality tolerance are excluded from the model. The two variables are strongly correlated (Pearson $r = 0.64$, $p < .001$).

[14] Put differently, in treatment 4 (Bonus-LessRisk), the probability of following the leader is 80.0% among team members with above-median scores on both dimensions, 59.4% for those above median on only one, and just 38.6% for those below median on both. In all other treatments, even the most inequality- and risk-averse team members follow their leader more than 66% of the time.

## 4.6 Comparison of the U.S. and European samples

**Finding 6:** *The adverse effect of pay inequality does not differ in magnitude between the European and U.S. samples. However, there is a consistent level difference: Europeans are more likely to choose the risky project than Americans.*

*Support:* Regression model (4) in Table 3 shows that, on average, American team members are 5.8 percentage points less likely than their European counterparts to follow the leader in choosing the risky project. Model (5) confirms that in treatment 1 (*No Leader*—the reference treatment), Americans are 12.7 percentage points less likely to choose the risky project than Europeans. However, Americans and Europeans respond similarly to variations in pay and risk inequality: the interaction terms between nationality and treatment are statistically insignificant and not different from each other.

These differences and similarities remain robust when controlling for demographics. When adjusting for age, gender, and race the U.S.–Europe gap in followership remains in size and statistical significance (5.6 percentage points, $p = .037$), and no systematic treatment interactions by nationality emerge ($p > .355$ for all pairwise treatment comparisons). Moreover, in Online Appendix B.3, we replicate regression models (1)–(4) from Table 3 separately for the U.S. and European samples and find comparable treatment effects. This evidence does not support Hypothesis 6, which predicted differential treatment effects.[15]

To understand why Europeans are more willing to follow the leader, we examine preferences over efficiency. In the incentivized fairness elicitation task (see Section 2.5), participants chose between a payoff of \$0.475 for themselves and \$1 for another participant, or \$0.40 for both. Europeans were significantly more likely to choose the unequal but efficient option (76.0%) than Americans (59.4%) (Wilcoxon ranksum, $p < .001$). Europeans also held more optimistic beliefs about others' willingness to do the same (66.7% versus 57.4%, $p < .001$). By contrast, in the unincentivized fairness elicitation—asking about willingness to accept inequality without reference to

[15] The European sample includes participants from the Nordic countries, the Netherlands, and France. Given the literature comparing the U.S. to Scandinavia (see Introduction), we re-estimate models (4) and (5) after excluding Dutch and French participants. The results are qualitatively unchanged: in model (4), the U.S. coefficient is 4.9 percentage points ($p = .172$), and in model (5), all interaction terms remain statistically insignificant. These findings suggest that U.S. and Nordic participants respond similarly to leader incentives, though the Nordic subsample is too small to support firm conclusions.

efficiency—there is no significant difference between groups (normalized score: 0.45 for Europeans vs. 0.44 for Americans, $p = .155$). These results suggest that the higher followership rates among Europeans are driven more by efficiency-oriented reasoning than by differences in aversion to inequality. Hence, differences in team collaboration across countries may be more affected by beliefs and norms about cooperativeness than by different inequality attitudes. American teams could have improved their outcomes by trusting that others would also act in the team's interest.

# 5 Conclusion

This paper examines how two common features of organizational life—pay inequality and risk inequality—shape leadership effectiveness in coordinating the actions of their teams. Using controlled experiments, we isolate the causal impact of each factor on whether teams succeed in aligning their actions. Our central finding is that pay inequality reduces the willingness of team members to follow their leader when attempting to coordinate on a high-risk, high-reward project. However, this adverse effect disappears when the leader also bears greater risk. In such cases, team members appear to view the leader's higher compensation as justified by their exposure to downside consequences. Leaders with greater "skin in the game" are more effective in aligning their teams.

The credibility-enhancing effect of risk exposure has limits: it improves coordination only when pay inequality is present. When all participants are paid equally, increasing the leader's risk exposure does not improve team outcomes. This asymmetry suggests that risk exposure plays a legitimizing role, mitigating fairness concerns rather than directly motivating coordination. These insights contribute to leadership theory by highlighting how specific incentive structures, particularly the balance between rewards and personal risk, affect followership and team coordination.

Despite documented differences in attitudes toward inequality across countries, we find broadly similar responses to leader incentives in our European and U.S. samples. While Europeans are modestly more willing to follow leaders (by about 6 percentage points), the structure of their responses to bonuses and risk exposure mirrors those of Americans. The cross-country difference appears to reflect variation in beliefs about others' cooperativeness, specifically, whether team members expect others to act in ways that maximize group outcomes. These findings suggest that efforts to build trust and shared expectations may be as important as formal incentive design in shaping effective leadership.

Our findings open several avenues for future research. First, while our study isolates the effects of leader incentives in a tightly controlled coordination environment, many real-world contexts feature additional complications—such as misaligned interests, task ambiguity, or power asymmetries. In such settings, the credibility of leadership actions may become even more critical, especially when leaders benefit from substantial compensation packages. Second, the extent to which risk exposure legitimizes pay inequality may vary by context—such as between top-management teams and operational teams in areas like sales or customer service. Third, future research could explore how leaders self-select into roles that vary in their mix of pay and risk, and whether this selection process helps or hinders team coordination. Taken together, our results underscore the importance of carefully designing leadership incentives—not only to motivate leaders, but also to signal commitment and legitimacy to those they are meant to lead.

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# A Online appendix – Experimental instructions

# Experimental Instructions
# Bonus-SameRisk

**Your group**

**You are in a group of three**, you and two other participants.

The other persons in your group are chosen randomly among the other study participants. So, the other persons in your group are real and participate in this study just like you.

Continue ...

SoPHIE LABS 0:13

**Your task**

Your task will be to choose between two projects: the **blue project** and the **orange project**.

The other two persons in your group will also choose between the **blue** project and the **orange** project.

Continue ...

**The projects**

As will become clear throughout the instructions, the two projects can be thought of as follows:

- Choosing the **blue** **project** is the safe choice. You will earn a certain amount for choosing it, which will not depend on the choices of the other persons in your group.
- Choosing the **orange** **project** is the potentially more rewarding choice. However, it is also more risky because it will produce high earnings *only if everyone else in the group also chooses* **orange**. If another person in your group chooses **blue**, choosing the **orange** project will give you low earnings.

Continue ...

**First-mover and other group members**

In your group, there will be:

- one *first-mover*
- two *other group members*

You will be assigned one of these roles on the next screen.

Continue ...

**Role assignment**

**You were selected to be one of the two other group members**.

Another person was selected to be *the first-mover* of your group.

Continue ...

**Timing of actions**

**The first-mover will make their decision before the two other group members**. More precisely, the timing will be as follows:

1. The first-mover will choose between the **blue** project and the **orange** project
2. The other group members will observe the first-mover's decision
3. Each of the other group members will choose between the **blue** project and the **orange** project, independently and without communication

The experiment is being conducted during a 48-hour window. First, we ask the participants who are assigned the role of the first-mover to choose a project, then we ask those who are assigned the role of a group member to choose a project. This allows us to inform the group members of the first-mover's project choice. The timing of actions is common knowledge, so the first-mover will be aware that his/her project choice will be observed by the other group members before they will make their decisions.

Continue ...

**Your earnings**

We will next explain how the project selection determines your earnings as a group member:

- If you choose the **blue** project, you will earn **$4**, irrespective of the colors chosen by the first-mover and the other group member
- If you choose the **orange** project and *both the first-mover and the other group member also choose* **orange**, you will earn **$4.75**
- If you choose the **orange** project and *at least one other person (the first-mover, the other group member, or both) chooses* **blue**, you will earn **$2.75**

As you can see, choosing the **blue** project gives you a safe payoff of $4, while choosing the **orange** project can give you the highest payoff of $4.75 but only when the others in your group also choose the **orange** project.

Continue ...

**Earnings of the first-mover**

The earnings of the first-mover are determined as follows:

- If the first-mover chooses the **blue** project, they will earn **$4**, irrespective of the colors chosen by you and the third group member
- If the first-mover chooses the **orange** project and you and the third group member also choose **orange**, the first-mover will earn **$10**
- If the first-mover chooses the **orange** project and at least one other person (i.e., you, the third group member, or both) chooses **blue**, the first-mover will earn **$2.75**

**The first-mover thus has a higher potential benefit than the other group members**. To see this, note that **the first-mover earns more than twice the amount of you ($10 versus $4.75)** if everyone chooses the **orange** project.

Continue ...

## Examples

Before continuing to the comprehension questions, let us look at a few examples. Recall that you have been assigned to be one of the two other group members (not the first-mover).

**Example 1:** Suppose you choose the **blue** project. In this case, you would earn $4. When you choose **blue**, your earnings are independent of the project colors chosen by the other persons in your group. You can thus think of the **blue** project as the safe choice. Note that if you choose **blue**, it does not imply that others also earn $4 (it depends on their decisions).

**Example 2:** Suppose the first-mover chooses the **orange** project and, after observing the first-mover's choice, you and the other group member also choose **orange**. Then, you and the other group member would earn $4.75. The first-mover would earn $10. So, if everyone chooses it, the **orange** project yields high returns. The first-mover earns more than twice the amount of the other group members.

**Example 3:** Suppose the first-mover chooses the **orange** project and, after observing the first-mover's choice, you choose **orange** and the other group member chooses **blue**. Then, you would earn $2.75. The first-mover would also earn $2.75. The other group member who chose **blue** would earn $4. So, if *not* everyone chooses it, the **orange** project yields low returns.

Continue ...

SoPHIE LABS 0:24

**Summary**

- You are in a group of 3. Each person will choose between the **blue** project and the **orange** project.
- You are **one of the other group members**. You will choose your project color after the first-mover. You and the other group member will know which project the first-mover chose when making your decisions.
- Your earnings will depend on the colors chosen in your group:

| | You choose **blue** | You choose **orange** and both others also choose **orange** | You choose **orange** and at least one person chooses **blue** |
|---|---|---|---|
| Earnings if you are the first-mover | **$4** | **$10** | **$2.75** |
| Earnings if you are another group member | **$4** | **$4.75** | **$2.75** |

- Choosing **blue** will guarantee you a payoff of **$4**.
- If you choose **orange** and both other persons in your group also choose **orange**, you will earn:
  - **$10** if you are the first-mover, or **$4.75** if you are another group member
  - As you can see, the first-mover earns more than twice the amount of the other group members if everybody chooses **orange**
- If you choose **orange** and at least one other person in your group chooses **blue**, you will earn:
  - **$2.75** if you are the first-mover, or **$2.75** if you are another group member

Continue ...

SoPHIE LABS

## Comprehension Questions I

Solve the following comprehension questions. You have at most two attempts and can only proceed with the study if you answer all questions correctly. Use the "Summary of instructions" button to find the correct answers.

Summary of instructions

A. How many persons are in your group (including you)?

B. Are you the first-mover or one of the two other group members?

- First-mover
- Group member

C. The first-mover chooses their project color before the two other group members. The two other group members will choose their project simultaneously (without observing each other's choice), but they will know which project the first-mover chose.

- True
- False

Submit

SoPHIE LABS

## Comprehension Questions II

Solve the following comprehension questions. You have at most two attempts and can only proceed with the study if you answer all questions correctly. Use the "Summary of instructions" button to find the correct answers.

Summary of instructions

A. What will your earnings be (in $) if you choose **blue**?

B. Suppose everybody in the group chooses **orange**. What would your earnings be (in $)?

C. Suppose everybody in the group chooses **orange**. What would the first-mover's earnings be (in $)?

D. Suppose you choose **orange**, and at least one person in your group chooses **blue**. What would your earnings be (in $)?

E. Suppose the first-mover chooses **orange**, and at least one person in your group chooses **blue**. What would the first-mover's earnings be (in $)?

Submit

SoPHIE LABS

**This concludes the instructions and comprehension questions. On the next two screens, we will tell you which project the first-mover chose and you will choose your project color.**

Continue ...

SoPHIE LABS

**First-mover's project choice**

Before you choose your project, we will tell you which project the first-mover chose:

**The first-mover chose the blue project**.

Continue ...

SoPHIE LABS 0:04

DECISION

Summary of instructions

| | Chooses **blue** | Chooses **orange** and both others also choose **orange** | Chooses **orange** and at least one person chooses **blue** |
|---|---|---|---|
| Earnings if first-mover | **$4** | **$10** | **$2.75** |
| Earnings if group member (you) | **$4** | **$4.75** | **$2.75** |

The first-mover chose the **blue** project.

You are one of the two other group members. It is now the group members' turn to choose a project color. You choose simultaneously with the other group member and you don't know if they will choose **blue** or **orange**.

*Please choose your project:*

- **I choose blue**
- **I choose orange**

Submit

SoPHIE LABS 0:05

**Choose a lottery**

Please select one of the following six lotteries. Each lottery has a different chance of winning and a different winning amount. For the lottery you select, the computer will determine whether you will win or not according to the chance of winning. If you win, the winning amount for the chosen lottery will be added to your bonus payments. If you don't win, your earnings remain unchanged. Choose your preferred lottery:

- ○ **Lottery 1: a 8 in 10 chance to win $0.40**
- ○ **Lottery 2: a 7 in 10 chance to win $0.60**
- ○ **Lottery 3: a 6 in 10 chance to win $0.80**
- ○ **Lottery 4: a 5 in 10 chance to win $1.00**
- ○ **Lottery 5: a 4 in 10 chance to win $1.20**
- ○ **Lottery 6: a 3 in 10 chance to win $1.40**

Submit ...

SoPHIE LABS 0:03

**Please answer the question below**

How do you see yourself: Are you a person who is generally willing to take risks, or do you try to avoid taking risks?

| not at all willing to take risks | | | | | | | | | | very willing to take risks |
|---|---|---|---|---|---|---|---|---|---|---|
| ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |

Submit

## Choose a distribution

Please choose one of the following two payment distributions for you and another study participant. The other study participant is randomly chosen among all study participants. The distribution you select will be implemented with a probability of 50%, in which case you and the other participant will receive the selected payments.

- ○ **Distribution 1: You receive $0.475, and the other person receives $1**
- ○ **Distribution 2: You receive $0.4, and the other person receives $0.4**

Submit

SoPHIE LABS 0:04

On the previous screen, about 100 study participants have chosen a payment distribution for themselves and another person.

Distribution 1: The participant selects that they receive $0.475 and the other person receives $1

Distribution 2: The participant selects that they receive $0.4 and the other person receives $0.4

**What do you think is the percentage of participants who choose Distribution 1?**

My best guess is that **55**% of the other participants chose Distribution 1 on the previous screen.

You will receive $1 if the difference between your estimate and the true percentage is 5% or less.

Submit

SoPHIE LABS 0:03

**Please answer the question below**

How do you see yourself: Are you a person that is willing to accept inequalities, or do you prefer to avoid inequalities?

| not at all willing to accept inequalities | | | | | | | | | | very willing to accept inequalities |
|---|---|---|---|---|---|---|---|---|---|---|
| ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |

Submit

# Experimental Instructions
# Bonus-MoreRisk
# (only the screens that differ from before)

SoPHIE LABS

You can proceed to the next screen when ready
0:00

**Earnings of the first-mover**

The earnings of the first-mover are determined as follows:

- If the first-mover chooses the **blue** project, they will earn **$4**, irrespective of the colors chosen by you and the third group member
- If the first-mover chooses the **orange** project and you and the third group member also choose **orange**, the first-mover will earn **$10**
- If the first-mover chooses the **orange** project and at least one other person (i.e., you, the third group member, or both) chooses **blue**, the first-mover will earn **$0**

**The first-mover thus has a higher potential benefit than the other group members, but he/she also faces a larger risk**. To see this, note that **the first-mover earns more than twice the amount of you ($10 versus $4.75)** if everyone chooses the **orange** project. However, in contrast to you, **the first-mover also faces the risk of earning $0** (no payment in this part of the study) when choosing **orange** and another group member chooses **blue**.

Continue ...

SoPHIE LABS 0:35

**Examples**

Before continuing to the comprehension questions, let us look at a few examples. Recall that you have been assigned to be one of the two other group members (not the first-mover).

**Example 1:** Suppose you choose the **blue** project. In this case, you would earn $4. When you choose **blue**, your earnings are independent of the project colors chosen by the other persons in your group. You can thus think of the **blue** project as the safe choice. Note that if you choose **blue**, it does not imply that others also earn $4 (it depends on their decisions).

**Example 2:** Suppose the first-mover chooses the **orange** project and, after observing the first-mover's choice, you and the other group member also choose **orange**. Then, you and the other group member would earn $4.75. The first-mover would earn $10. So, if everyone chooses it, the **orange** project yields high returns. The first-mover earns more than twice the amount of the other group members.

**Example 3:** Suppose the first-mover chooses the **orange** project and, after observing the first-mover's choice, you choose **orange** and the other group member chooses **blue**. Then, you would earn $2.75. The first-mover would earn $0. The other group member who chose **blue** would earn $4. So, if *not* everyone chooses it, the **orange** project yields low returns. This is particularly true for the first-mover who faces the risk of earning $0 (no payment in this part of the study), a risk the other group members don't face.

Continue ...

SoPHIE LABS 0:22

**Summary**

- You are in a group of 3. Each person will choose between the **blue** project and the **orange** project.
- You are **one of the other group members**. You will choose your project color after the first-mover. You and the other group member will know which project the first-mover chose when making your decisions.
- Your earnings will depend on the colors chosen in your group:

| | You choose **blue** | You choose **orange** and both others also choose **orange** | You choose **orange** and at least one person chooses **blue** |
|---|---|---|---|
| Earnings if you are the first-mover | **$4** | **$10** | **$0** |
| Earnings if you are another group member | **$4** | **$4.75** | **$2.75** |

- Choosing **blue** will guarantee you a payoff of **$4**.
- If you choose **orange** and both other persons in your group also choose **orange**, you will earn:
  - **$10** if you are the first-mover, or **$4.75** if you are another group member
  - As you can see, the first-mover earns more than twice the amount of the other group members if everybody chooses **orange**
- If you choose **orange** and at least one other person in your group chooses **blue**, you will earn:
  - **$0** if you are the first-mover, or **$2.75** if you are another group member
  - As you can see, the first-mover faces a larger risk than the other group members because he/she earns no payoff ($0) in this part of the study if another person chooses **blue**

Continue ...

**First-mover's project choice**

Before you choose your project, we will tell you which project the first-mover chose:

**The first-mover chose the orange project**.

Continue ...

SoPHIE LABS 0:06

DECISION

Summary of instructions

| | Chooses **blue** | Chooses **orange** and both others also choose **orange** | Chooses **orange** and at least one person chooses **blue** |
|---|---|---|---|
| Earnings if first-mover | **$4** | **$10** | **$0** |
| Earnings if group member (you) | **$4** | **$4.75** | **$2.75** |

The first-mover chose the **orange** project.

You are one of the two other group members. It is now the group members' turn to choose a project color. You choose simultaneously with the other group member and you don't know if they will choose **blue** or **orange**.

*Please choose your project:*

- (●) **I choose blue**
- ( ) **I choose orange**

Submit

# B Online appendix – Additional analyses

## B.1 Robustness check of behavioral measures

Below we reproduce the OLS regressions of table 3 in the paper separately for the incentivized behavioral measures (i.e., the lottery choice and the distribution choice) and the self-reported measures of risk and inequality tolerance. The results remain unchanged; that is, risk tolerance and beliefs about others' inequality tolerance increase team members' probability of following leaders in choosing the risky project. A person's own inequality tolerance is insignificant.

Table 4: OLS Regression – Incentivized versus self-reported measures

| | (1) | (2) | (3) | (4) | (5) | (6) | (7) |
|---|---|---|---|---|---|---|---|
| NoBonus-LessRisk | 0.427*** | | 0.418*** | 0.413*** | | 0.400*** | 0.396*** |
| | (0.044) | | (0.044) | (0.044) | | (0.044) | (0.044) |
| NoBonus-SameRisk | 0.432*** | | 0.411*** | 0.405*** | | 0.405*** | 0.398*** |
| | (0.045) | | (0.045) | (0.045) | | (0.044) | (0.044) |
| Bonus-LessRisk | 0.336*** | | 0.324*** | 0.318*** | | 0.314*** | 0.308*** |
| | (0.047) | | (0.046) | (0.047) | | (0.046) | (0.046) |
| Bonus-SameRisk | 0.446*** | | 0.423*** | 0.417*** | | 0.405*** | 0.398*** |
| | (0.044) | | (0.045) | (0.045) | | (0.045) | (0.045) |
| Bonus-MoreRisk | 0.498*** | | 0.481*** | 0.477*** | | 0.463*** | 0.459*** |
| | (0.038) | | (0.038) | (0.039) | | (0.039) | (0.039) |
| Lottery choice | | 0.157*** | 0.174*** | 0.169*** | | | |
| | | (0.050) | (0.047) | (0.047) | | | |
| Distribution choice | | 0.054 | 0.036 | 0.033 | | | |
| | | (0.040) | (0.037) | (0.037) | | | |
| Belief ineq. tolerance | | 0.212*** | 0.156*** | 0.170*** | 0.271*** | 0.196*** | 0.211*** |
| | | (0.063) | (0.059) | (0.059) | (0.047) | (0.046) | (0.048) |
| US | | | | -0.057** | | | -0.062** |
| | | | | (0.027) | | | (0.027) |
| Self-reported risk tolerance | | | | | 0.373*** | 0.318*** | 0.335*** |
| | | | | | (0.061) | (0.059) | (0.060) |
| Self-reported ineq. tolerance | | | | | -0.055 | -0.039 | -0.014 |
| | | | | | (0.054) | (0.050) | (0.051) |
| Constant | 0.259*** | 0.373*** | 0.065 | 0.132 | 0.285*** | 0.017 | 0.095 |
| | (0.029) | (0.041) | (0.045) | (0.113) | (0.045) | (0.046) | (0.111) |
| Observations | 1300 | 1300 | 1300 | 1300 | 1300 | 1300 | 1300 |
| $R^2$ | 0.125 | 0.034 | 0.148 | 0.156 | 0.052 | 0.158 | 0.169 |

Standard errors in parentheses
* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

## B.2 Order of elicitation tasks

We randomized whether participants first completed the risk and inequality preference elicitation tasks or the team production game. The table below reproduces table 3 of the manuscript separately for both orders. Models (1) to (4) contain the data from subjects who first did the elicitation tasks; models (5) to (8) the subjects who first played the team production game.

Table 5: OSL regressions – Order effects

| | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) |
|---|---|---|---|---|---|---|---|---|
| NoBonus-LessRisk | 0.411*** | | 0.396*** | 0.385*** | 0.426*** | | 0.422*** | 0.420*** |
| | (0.066) | | (0.066) | (0.067) | (0.060) | | (0.060) | (0.060) |
| NoBonus-SameRisk | 0.438*** | | 0.409*** | 0.393*** | 0.427*** | | 0.415*** | 0.419*** |
| | (0.061) | | (0.060) | (0.061) | (0.067) | | (0.066) | (0.065) |
| Bonus-LessRisk | 0.391*** | | 0.364*** | 0.355*** | 0.272*** | | 0.273*** | 0.278*** |
| | (0.063) | | (0.063) | (0.063) | (0.070) | | (0.067) | (0.067) |
| Bonus-SameRisk | 0.473*** | | 0.435*** | 0.416*** | 0.417*** | | 0.388*** | 0.394*** |
| | (0.062) | | (0.064) | (0.064) | (0.064) | | (0.063) | (0.063) |
| Bonus-MoreRisk | 0.520*** | | 0.483*** | 0.472*** | 0.474*** | | 0.473*** | 0.480*** |
| | (0.052) | | (0.054) | (0.054) | (0.056) | | (0.055) | (0.055) |
| Risk tolerant | | 0.261*** | 0.211** | 0.216** | | 0.473*** | 0.503*** | 0.508*** |
| | | (0.094) | (0.088) | (0.089) | | (0.097) | (0.093) | (0.093) |
| Inequality-tolerant | | 0.075 | 0.049 | 0.049 | | -0.003 | -0.006 | 0.010 |
| | | (0.084) | (0.078) | (0.080) | | (0.088) | (0.078) | (0.080) |
| Belief ineq. tolerance | | 0.277*** | 0.211*** | 0.213*** | | 0.225** | 0.149* | 0.165* |
| | | (0.081) | (0.077) | (0.077) | | (0.090) | (0.083) | (0.084) |
| US | | | | -0.086** | | | | -0.029 |
| | | | | (0.038) | | | | (0.038) |
| Constant | 0.235*** | 0.256*** | -0.009 | -0.162 | 0.286*** | 0.260*** | -0.048 | 0.256 |
| | (0.039) | (0.066) | (0.066) | (0.160) | (0.044) | (0.066) | (0.069) | (0.173) |
| First part | elicitation | elicitation | elicitation | elicitation | main | main | main | main |
| Observations | 645 | 645 | 645 | 645 | 655 | 655 | 655 | 655 |
| $R^2$ | 0.139 | 0.049 | 0.166 | 0.177 | 0.115 | 0.054 | 0.162 | 0.180 |

Standard errors in parentheses
* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

The main results are order-independent. One difference is that the willingness of team members to follow the leader in Bonus-LessRisk is lower when the elicitation tasks come second. That is, exposing subjects to the elicitation tasks makes them a bit more accepting of inequality in the team production game. If anything, the results reported in the study thus underestimate the effect of bonuses and the inequality-justifying effect of risk exposure compared with the case where subjects face the main game without any prior tasks. This is because the more relevant order for the behavior in the team production task is the one where the elicitation tasks come second. We implemented the elicitation tasks first for 50% of the subjects to be certain that the effects of the elicited measures do not arise due to playing different treatments in the main game.

## B.3 Further comparisons of U.S. and European samples

The table below splits the main regressions shown in table 3 of the paper by U.S. and European participants. The first three regression models include only Americans; regressions (4) to (6) include only Europeans. As already shown in the manuscript, the treatment effects are similar across subsamples: the willingness to follow leaders is lowest in Bonus-LessRisk, and adding risk exposure considerably alleviates this effect. The main difference is that European subjects are generally more willing to follow leaders, as reflected by the higher constant in the regression model (4) compared to model (1). In addition, one can see a significant effect of inequality tolerance for the European sample, whereas this variable was insignificant in the pooled analysis or when considering only the U.S. sample. Beliefs about inequality still play a role for Europeans, but the effects are more noisy. Beliefs play a more critical role in the behavior of Americans. We leave further exploration of these potentially important differences for future research.

Table 6: OLS regression – US versus European sample

| | (1) | (2) | (3) | (4) | (5) | (6) |
|---|---|---|---|---|---|---|
| NoBonus-LessRisk | 0.448*** | | 0.442*** | 0.383*** | | 0.370*** |
| | (0.057) | | (0.056) | (0.069) | | (0.070) |
| NoBonus-SameRisk | 0.421*** | | 0.411*** | 0.405*** | | 0.376*** |
| | (0.063) | | (0.060) | (0.068) | | (0.068) |
| Bonus-LessRisk | 0.333*** | | 0.335*** | 0.308*** | | 0.285*** |
| | (0.063) | | (0.060) | (0.071) | | (0.071) |
| Bonus-SameRisk | 0.460*** | | 0.444*** | 0.405*** | | 0.366*** |
| | (0.059) | | (0.060) | (0.069) | | (0.069) |
| Bonus-MoreRisk | 0.524*** | | 0.512*** | 0.443*** | | 0.419*** |
| | (0.050) | | (0.049) | (0.061) | | (0.062) |
| Risk tolerant | | 0.378*** | 0.396*** | | 0.314*** | 0.270*** |
| | | (0.091) | (0.085) | | (0.101) | (0.099) |
| Inequality tolerant | | -0.097 | -0.113 | | 0.183** | 0.179** |
| | | (0.082) | (0.074) | | (0.090) | (0.084) |
| Belief ineq. tolerance | | 0.298*** | 0.219*** | | 0.154* | 0.111 |
| | | (0.082) | (0.077) | | (0.086) | (0.082) |
| Constant | 0.210*** | 0.261*** | -0.043 | 0.337*** | 0.301*** | 0.036 |
| | (0.035) | (0.058) | (0.057) | (0.051) | (0.078) | (0.084) |
| Region | US | US | US | Europe | Europe | Europe |
| Observations | 683 | 683 | 683 | 617 | 617 | 617 |
| $R^2$ | 0.145 | 0.045 | 0.181 | 0.094 | 0.047 | 0.129 |

Standard errors in parentheses
* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

## B.4 Subtreatments of Bonus-MoreRisk

Treatment Bonus-MoreRisk was divided into two subtreatments. In the first one, we assigned roles exogenously, as in all other treatments. This treatment has 297 subjects, 213 team members and 84 leaders. In the second one, the participants could indicate preferences over the leader and team member roles after reading the instructions and being aware of the game's payoffs and timing. If none of the three participants in a group preferred the leader role, they played the game without a leader. If exactly one participant preferred the leader role, that participant became the group's leader. If more than one participant preferred the leader role, we randomly selected the leader among the interested parties. We implemented the treatment to examine leader emergence. This treatment has 288 subjects, 192 team members and 96 leaders.

Treatment Bonus-MoreRisk is used to test Hypothesis 3 in the manuscript on the question of whether risk exposure succeeds in justifying the leader bonuses. Recall that in Bonus-LessRisk, the team members' probability of following the leader in choosing the risky project was 59.5%. In the Bonus-MoreRisk subtreatment with exogenous roles, the probability is 72.9%, significantly different from Bonus-LessRisk (Wilcoxon ranksum, $p = .007$). In the Bonus-MoreRisk subtreatment with endogenous roles, the probability is 79.4%, also significantly different from Bonus-LessRisk (Wilcoxon ranksum, $p < .001$). The two subtreatments are not significantly different (Wilcoxon ranksum, $p = .182$). Thus, looking at the subtreatments of Bonus-MoreRisk separately provides independent evidence supporting Hypothesis 3, which states that higher risk exposure by leaders increases leader effectiveness.

We next turn to leader emergence. Who chose the leader role in the corresponding subtreatment of Bonus-MoreRisk? We find that the willingness to assume the leader rather than the team member role is a key dimension along which Europeans and US Americans in our sample differ: American participants chose the leader role more often than Europeans (71.8% versus 60.8%, Wilcoxon ranksum, $p = .049$). Further, beliefs about others' inequality tolerance are the dominant factor in choosing the leadership role. Intriguingly, believing that others are more inequality-tolerant significantly reduces the probability of choosing the leader role: 60.9% for participants with above-median beliefs on inequality tolerance versus 73.7% for participants with below-median beliefs (Wilcoxon ranksum, $p = .021$). Indeed, American participants are more likely to hold below-median beliefs. Taken together, American participants likely choose the leader role more often than Europeans because they believe other leaders would be reluctant to initiate the risky project. That is, Americans have a greater desire to ensure that the leader will be someone who focuses on efficiency rather than equality.

Finally, we test a comment we included in the pre-registration, which is that we expected more conformist individuals to be less likely to select the role of a leader. Are conformist individuals less likely to select the leader role in the corresponding subtreatment of Bonus-MoreRisk? We find no evidence in support of this conjecture. An OLS regression on the selection of the leader role on conformity yields a $P = .876$ without controls and $P = .670$ when controlling for nationality, gender, and age. The nonconformity measure is the same one as used in Andreoni et al. (2021). It is based on the following set of statements and answers on five-point Likert scale: Regulations trigger a sense of resistance in me; I find contradicting others stimulating; When something is prohibited, I usually think "that's exactly what I am going to do"; I consider advice from others to be an intrusion; I become frustrated when I am unable to make free and independent decisions; It irritates me when someone points out things which are obvious to me; I become angry when my freedom of choice is restricted; Advice and recommendations induce me to do just the opposite; I resist the attempts of others to influence me; It makes me angry when another person is held up as a model for me to follow; When someone forces me to do something, I feel like doing the opposite.