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# Should Star Performers Lead or Anchor Their Teams? Sequential Contributions in a Threshold Public Goods Experiment

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# SHOULD STAR PERFORMERS LEAD OR ANCHOR THEIR TEAMS? SEQUENTIAL CONTRIBUTIONS IN A THRESHOLD PUBLIC GOODS EXPERIMENT

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**ABSTRACT.** Collective efforts often rely on high-capacity “stars”—star employees, lead investors, or major donors—whose participation disproportionately determines success. Is it better to engage them early to set direction, or later to ensure completion? We investigate this strategic design problem experimentally, where collective success requires coordination on both direction and effort. We find that sequential engagement significantly outperforms simultaneous action, following a clear heuristic: stars should *lead* when the broader team is disorganized (to focus attention) but *anchor* when the team is already organized (to resolve effort failure). Regardless of when star engagement occurs, groups tend to support the majority’s preferred action whenever it is clear. Disorganized groups, in contrast, look to the preferences of the star for guidance. Finally, groups converge towards more equitable outcomes than equilibria imply, with the star taking on a disproportionate, but not excessive, share of costs. The timing that maximizes success also maximizes the payoffs of both the star and majority members, suggesting that managers can focus on effectiveness, relying on cooperative norms to prevent excessive free-riding and ensure fairness.

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## 1. INTRODUCTION

Collective efforts—from fundraising campaigns to internal team projects—often rely on the effective engagement of high-capacity contributors whose participation disproportionately determines whether the group succeeds or fails (Groysberg et al., 2008; Hendricks et al., 2023).<sup>1</sup> For an organization, the challenge is determining when this *star* should act. Engaging a star early allows them to lead, signaling which project the group should support. Engaging them late allows them to anchor, providing the assurance needed to close a funding or effort gap. This choice creates a fundamental trade-off: leaders unify fragmented teams, while anchors insure against failure.

We investigate this trade-off experimentally using a framework that captures two distinct coordination problems: groups must (i) collectively contribute enough effort, and (ii) align this effort behind the same project to achieve success. Building on the multiple-threshold public goods (MTPG) setting of Corazzini et al. (2015) and Corazzini et al. (2024), we construct a collective action environment containing a high-capacity star and a lower-capacity majority. We then manipulate the star’s timing (acting first, simultaneously, or last) and the majority’s alignment (whether they are organized around a single alternative or fragmented across several).

Our design allows us to isolate the two mechanisms by which sequential engagement influences coordination. Early leadership reduces uncertainty about which project to support, creating a focal point that resolves selection failures. Late anchoring reduces uncertainty about whether success is achievable, providing assurance that resolves effort failures.

Our results reveal a clear heuristic for organizational design: stars should lead when the team is unfocused or disorganized, but anchor when the team is focused on an approach or project. When the majority is unorganized, leadership yields the largest gains by unifying the group around a single option—typically the star’s preference. Conversely, when the majority is already organized around a salient option, early leadership is redundant. Instead, the star is most effective as an anchor, acting last to guarantee project completion.

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<sup>1</sup>See also Groysberg et al. (2011); Flynn & Amanatullah (2012); Oettl (2012); Aguinis & O’Boyle (2014); Call et al. (2015); Campbell et al. (2017); Li et al. (2020) and Call et al. (2021). For example, crowdfunding platforms and institutional capital campaigns often use early seeding and matching campaigns to influence donor behavior (Mollick, 2014; Agrawal et al., 2015; List & Lucking-Reiley, 2002; Huck & Rasul, 2011). Venture rounds often depend on lead or anchor investors whose presence determines closing probability and syndicate composition (Mason & Kwok, 2010; Hochberg et al., 2007; Chemmanur et al., 2014). Within firms, temporary changes in key employee availability or the timing of participation alter team output and routines (Chen & Garg, 2018; Kehoe & Tzabbar, 2015).

A second set of results concerns which project succeeds. We find that the organization of the majority—not the role of the star—is the primary determinant of project selection. When the majority is unorganized, groups tend to converge on the star’s preferred project, replicating the “wealthy-interest bias” found in previous literature (e.g., Corazzini et al., 2024). However, we show that this pattern reverses once the majority is organized. An organized base effectively overrides the star’s agenda-setting power, ensuring the implementation of the majority-preferred project regardless of when the star is engaged.

Perhaps most strikingly, we find that the timing that maximizes success also maximizes equity. Despite potential distortions from unequal endowments and first-mover advantages, groups consistently adopt progressive cost-sharing norms in which the star contributes disproportionately more than the majority. Crucially, this stability arises because first movers, whether the star or the majority, avoid fully exercising their strategic advantage. Instead, groups converge toward a distribution where the star bears a higher, but not excessive, burden regardless of the sequence. Because the star voluntarily accepts this role and the majority reciprocates, efficiency and fairness align. The same timing that maximizes overall success (given the team’s organization) also maximizes payoffs for all members. For organizational design, this simplifies the manager’s mandate. It implies that designers—whether running internal teams, crowdfunding campaigns, or philanthropic drives—need not trade off performance against distribution. They can focus on engaging stars to maximize success rates, relying on cooperative norms to naturally resolve the division of costs.

These results contribute to three strands of literature. First, we extend the work on sequential collective action (e.g. Hermalin, 1998; Potters et al., 2005; Varian, 1994)<sup>2</sup> by showing that, in multi-project environments, early contributions signal both direction and quality. We clarify that this directional signal is high-value when the group is fragmented, but loses value when the other group members already have focused preferences.

Second, we bridge the gap between “star performer” research and coordination theory. While management research has extensively documented the impact of high performers on peer output, it rarely addresses

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<sup>2</sup>See also laboratory studies revealing that the order of play and sequencing affect contribution levels: leaders (early movers) can boost provision by establishing a focal point on an equilibrium where players contribute and fund a good, whereas simultaneous or anonymous play often results in different outcomes (Gächter et al., 2010; Marks & Croson, 1999; Bagnoli & McKee, 1991; Rapoport & Suleiman, 1993). The research also examines how matching and rebate schemes influence contributions through subsidies (Eckel & Grossman, 2003; Frey & Meier, 2004), and meta-analyses show consistent leadership-by-example effects across various fields (Eisenkopf & Kölpin, 2024).

the strategic sequencing of their work.<sup>3</sup> We show that the "lead or anchor" decision is a structural solution to the coordination failures identified in the MTPG literature.

Finally, our findings offer a behavioral foundation for empirical observations in fundraising and venture finance. Previous studies have debated the efficacy of seed money versus matching grants.<sup>4</sup> Our results suggest the optimal strategy is conditional on the donor pool: seed money (leadership) focuses attention for dispersed donors, while matching funds (anchoring) provide assurance to donors who are already coordinated but risk-averse.

Section 2 presents the multiple threshold public good (MTPG) framework, behavioral mechanisms, and experimental design. Section 3 presents the results. Section 4 discusses the research contributions and implications for policy and organizations.

## 2. FRAMEWORK AND EXPERIMENTAL DESIGN

**2.1. MTPG Framework: Collaboration as Collective Action.** Our experimental setting involves groups of 4 individuals that can work together to implement any of  $N \geq 2$  alternative projects. Each player  $i$  has an endowment  $w_i$  and chooses a nonnegative contribution profile,  $x_{i,n} = x_{i,1}, \dots, x_{i,N}$ , with each element depicting the amount provided to the corresponding project and such that the total contributions do not exceed her endowment. A project is successfully implemented, returning benefits to all group members, if and only if the total contributions it receives exceed a minimum funding threshold  $\tau_i$ .

Player  $i$ 's payoff is

$$u_i(\mathbf{x}_i; \mathbf{x}_{\setminus i}) = 2 \left( w_i - \sum_{n=1}^N x_{i,n} \right) + \sum_{n=1}^N B_{i,n}(X_n),$$

where  $X_n = \sum_i x_{i,n}$ ,  $\mathbf{x}_i = \{x_{i,1}, \dots, x_{i,N}\}$ , and  $\mathbf{x}_{\setminus i}$  denotes the contribution profile of all players except  $i$ .  $B_{i,n}(X_n)$  is the benefit earned by  $i$  from project  $n$ :

$$B_{i,n}(X_n) = \begin{cases} 0 & \text{if } X_n < \tau \\ X_n + b_{i,n} & \text{if } X_n \geq \tau. \end{cases},$$

<sup>3</sup>Organizational research shows that where and how stars are used matters. Stars placed at the center of workflows may boost overall output, but can decrease learning and initiative among team members, while distributing or rotating star engagement may stimulate broader skill development (Chen & Garg, 2018; Tzabbar & Kehoe, 2014; Kehoe & Tzabbar, 2015). The temporary absences of stars can induce peers to explore and innovate (Chen & Garg, 2018), and, in work more closely related to ours, the order and visibility of high-status contributions have been shown to affect how followers respond (Steinmetz et al., 2020).

<sup>4</sup>See for example List & Lucking-Reiley (2002); Bracha et al. (2011); Eckel & Grossman (2003); Frey & Meier (2004) and Huck & Rasul (2011). Crowdfunding research indicates that contributions tend to cluster over time: early contributors can attract followers and early momentum predicts eventual success (Mollick, 2014; Agrawal et al., 2015). See also papers on bridge and challenge grants (Jacob & Lefgren, 2007), public radio and related fundraising campaigns (List & Lucking-Reiley, 2002; Frey & Meier, 2004), and venture finance (Gompers & Lerner, 2001; Hsu, 2004; Hochberg et al., 2007; Mason & Kwok, 2010; Chemmanur et al., 2014; Cumming & Johan, 2014).

where  $b_{i,n}$  is a payoff “bonus” paid to  $i$  when  $n$  succeeds.

This is a multiple threshold public goods (MTPG) framework, first formalized in Corazzini et al. (2015) and extended to consider within-group heterogeneity in Corazzini et al. (2024).<sup>5</sup> We build on the heterogeneous MTPG framework to consider the role of star performers on collaborative projects. A star performer has a disproportionate ability to contribute to a team’s success. At the same time, they may bring their own preferences for alternative approaches, projects, or opportunities that may differ from the majority of the team. In our extended framework, each team of four includes three homogeneous *Majority* members, denoted  $\beta$ , and one higher-capacity *Star*, denoted  $\alpha$ .

Per-period endowments are  $w_\beta = 48$  tokens for all  $\beta$  players and  $w_\alpha = 76$  tokens for the star. The threshold for any project is  $\tau = 132$  tokens, or 60% of the total group endowment.<sup>6</sup>

*Preferences over projects.* We consider two alternative scenarios regarding group member preferences, which are incorporated into the model through variations (across individuals and projects) in bonus parameter  $b_{i,n}$ .

There are  $N = 12$  alternative projects to which players can contribute. However, most of these are clearly dominated, which we call *unpreferred*, offering a lower bonus for everyone ( $b_{i,unpref} = 20$ ). In each treatment, there is also a single star-preferred option, which offers the star  $b_{\alpha,Proj_\alpha} = 39$  and each majority member  $b_{\beta,Proj_\alpha} = 27$ . There is also either one or more majority-preferred option(s) offering the star  $b_{\alpha,Proj_\beta} = 21$  and each majority member  $b_{\beta,Proj_\beta} = 33$ , which we define as follows:

- (O) *Organized majority*: The majority’s preferences are focused on a single alternative to the star-preferred option (there is 1 majority-preferred, 1 star-preferred, and 10 unpreferred options).
- (U) *Unorganized majority*: The majority’s preferences are diffused across several equally viable alternatives to the star-preferred option (3 majority-preferred, 1 star-preferred, and 8 unpreferred options).

In Organized treatments, there is a clear and viable alternative to the star-preferred project. While in Unorganized treatments, coordinating on a majority-preferred option is inherently more difficult than coordinating on the star-preferred treatment.

*Timing.* We are interested in how the timing of star engagement affects team performance. In each treatment, the majority continue to move simultaneously, while the star may move first or last:

<sup>5</sup>Other extensions explore how intermediaries, delegation, and refund rules affect coordination (Corazzini et al., 2020; Cason & Zubrickas, 2019; Cason et al., 2021).

<sup>6</sup>This ensures that teams cannot implement multiple projects and that achieving the threshold requires positive support from at least 3 team members.

(L) *Star as Leader*: The star is the first mover, contributing before the majority.

(S) *Simultaneous*: The star and the majority contribute at the same time.

(A) *Star as Anchor*: The star is the last mover, contributing after the majority.

Given the variation in the majority organization and the timing of star engagement, there are six distinct interactive treatments:

TABLE 1. Treatment design.

	Simultaneous (S)	$\alpha$ is Leader (L)	$\alpha$ is Anchor (A)
Unorganized majority (U)	SU	LU	AU
Organized majority (O)	SO	LO	AO

The experimental treatments manipulate (i) the timing of when a high-capacity contributor (*the star*,  $\alpha$ ) acts relative to others — leader (L), simultaneous (S), or anchor (A) — and (ii) whether the majority’s attention is organized around a single preferred alternative (*Organized*, O) or spread across several viable alternatives (*Unorganized*, U). These manipulations capture two complementary dimensions of organizational design: the sequencing of contributions and the salience of alternative projects relative to the star’s preferred option.

## 2.2. Design Objectives and Behavioral Predictions.

2.2.1. *Design objectives*. The experiment will consider how timing and organization impact outcomes, including success rates and payoffs. These insights can inform strategy for stars about when to get involved, or for coordinators, managers, or institutional designers on when to engage them. In this way, the experimental results will give insight into the team engagement and institutional design. An organization or individual may have different objectives when choosing the timing of star engagement. We consider the following objectives:

- (1) Maximize success — probability that some project is implemented.
- (2) Maximize total welfare — the sum of team payoffs (efficiency).
- (3) Prioritize the star — reward the high-capacity contributor or leader.
- (4) Prioritize the majority — protect or empower ordinary members.
- (5) Minimize inequality — prioritizing fairness.

The optimal engagement rule—whether to have the star lead, act simultaneously, or anchor—depends on the designer’s priorities and the salience of alternative options. The analysis quantifies these trade-offs, showing under which conditions each timing strategy best satisfies different objectives.

*2.2.2. Behavioral Predictions: Overall Success and Payoffs.* We formulate predictions about how timing and organization impact outcomes. In doing so, we first consider how these factors help groups solve the two dimensions of a coordination problem: selection and effort. Members must simultaneously (i) focus contributions on the same project, and (ii) contribute enough total support to exceed a project’s threshold.

The timing of star engagement can affect group behavior by altering the expectations and information available to contributors:

- *Leadership (L)*: primarily helps coordination on selection, with early engagement reducing uncertainty among later contributors about which project to back. The star’s visible choice acts as a focal point that can concentrate others’ contributions, particularly when there is less clarity regarding the feasibility of majority-preferred alternatives.
- *Anchoring (A)*: primarily helps with coordination on effort, with late engagement reducing uncertainty about whether sufficient resources will be raised. The star can observe prior contributions and fill shortfalls, assuring project completion. This is most valuable when earlier contributors have organized preferences, making it easier for them to align their support behind a project and bring it within reach of the threshold.
- *Simultaneous (S)*: joint engagement provides neither focal direction nor assurance, leaving coordination challenges on both the selection and effort dimensions. This baseline establishes how much success can be achieved without sequencing.

In addition to these timing effects, the majority’s organization affects the group’s ability to coordinate on alternative options.

- *Organized (O)*: when the majority is organized around a single preferred project, there is a salient alternative to the star-preferred option. To the extent that the group sees a salient, popularly preferred option as the most reasonable alternative to focus on, this will simplify the selection dimension of the coordination problem.
- *Unorganized (U)*: when the majority’s attention is diffused across several alternative viable options, coordinating on any one of them will be more difficult. Some groups may still attempt to coordinate



on a majority-preferred option, while others may view the star-preferred option as a reasonable focal point or may be dissuaded from contributing to any project.

These mechanisms yield the following prediction about overall team success and payoffs.

**Prediction:** *Both Leadership and Anchoring increase group success rates and average payoffs compared to Simultaneous engagement. Leadership leads to the most substantial gains when the majority is unorganized. Anchoring leads to more success when the majority is organized than unorganized.*

Engaging the star either before or after others increases the likelihood of successful implementation relative to simultaneous play. Leadership is likely similarly effective at facilitating coordination and group success under both an organized and unorganized majority, given that the coordination benefits of organization are likely redundant with the leadership timing. For similar reasons, the gains from leadership (versus simultaneous engagement) are expected to be more substantial when preferences are unorganized than when they are organized. Anchoring, in contrast, is likely most effective at facilitating successful implementation when the majority is organized, as the selection dimension of the group coordination problem will remain substantive in the anchoring game with an unorganized majority. Anchoring will be more effective in helping the group coordinate effort in organized treatments, where coordination on selection is less challenging. In aggregate, we expect that total payoffs across the star and majority players will follow the same pattern as the probability of success.<sup>7</sup>

*2.2.3. Behavioral Predictions: Project Selection and Differences by Player Type.* Interventions that yield higher total payoffs do not necessarily yield higher payoffs for all team member types. Star and majority payoffs may be affected differently depending on who moves first. Such asymmetric effects of timing are consistent with equilibrium predictions in many non-repeated, sequential-move coordination games. Though they are not guaranteed in our repeated MTPG setting, where essentially any combination of contributions supporting a project at its threshold is consistent with equilibrium.<sup>8</sup>

We explore whether there is a first-mover advantage in terms of project selection, lower contributions, and higher payoffs. When the star contributes first, they may be able to seed their own preferred project

<sup>7</sup>This is not guaranteed, mechanically, as contributions may exceed thresholds, increasing payoffs, or be wasted on failed attempts at coordination, decreasing payoffs.

<sup>8</sup>The MTPG environment has many plausible (subgame-perfect) Nash equilibria, including the no-coordination outcome and a family of threshold equilibria in which groups focus on any one of the public goods, providing total contributions equal to the threshold (Corazzini et al., 2015, 2024). Repeated interactions within an unchanging group, as is the case in our experiment, enlarge the set of equilibria even further.

sufficiently to make it salient over majority-preferred alternatives. Or, they may contribute less to a majority-preferred option, leaving subsequent contributors a larger funding burden. To the extent that such a first-mover advantage is observed, star leadership will disproportionately benefit the star.

Symmetrically, when the star contributes last, there may be a higher probability of implementing majority-preferred projects, and the majority may leave the star with a larger share of the funding burden, anticipating that a star anchor has an incentive to top up any project within reach of its threshold. At the same time, however, the star can avoid contributing to doomed efforts that lack sufficient support from others to be viable, potentially benefiting them in some scenarios.

We examine project selection and payoff considerations in two steps: first, we explore the determinants of project selection, and then we examine the impact of timing on the contributions and payoffs of different types.

**Q1: *Project selection:*** When does the group tend to implement the project preferred by the star? When does it tend to implement a majority-preferred option?

The experiment will give insight into how timing and organization affect project selection. Both star-preferred and majority-preferred projects may be viewed as valid outcomes for groups to focus on, and it is unclear to what extent groups will prioritize one over the other. Our results will examine whether the selection of outcomes is biased toward the star's preferences and whether focusing on one's preferred project increases payoffs.

**Q2: *Leader Advantage and Anchor Disadvantage:*** Does contributing first decrease the star's contribution burden and increase her payoffs? Does contributing last increase the star's contribution burden and decrease her payoffs?

The way timing shifts payoffs depends on whether the first movers take advantage of their position to extract more surplus, either by increasing their focus on their own preferred option or by leaving a larger contribution burden for subsequent players. While such outcomes are consistent with the idea of strategic play in one-time interactions, they are not unique possibilities in repeated cooperation and coordination environments, where groups may coordinate on more equitable outcomes, either because they value fairness or because they see it as a means of sustaining beneficial cooperation over the long run.

Recognizing that the impact of timing on selection and outcomes is not immediately apparent, we assess the extent to which a first-mover advantage and a last-mover disadvantage are present in our team collaboration environment, or whether team coordinate on more equitable outcomes.

To the extent that there is a first-mover payoff advantage, the optimal timing of star engagement may depend on the designer’s objectives. If, however, we find that groups converge to progressive contribution and payoff distributions regardless of who contributes first, then maximizing total payoffs may simultaneously maximize the expected payoffs for each player type.

**2.3. Experimental procedures.** The experiment was programmed using *z-Tree* (Fischbacher, 2007), and the experimental sessions were conducted in March 2023 at VERA lab, the laboratory for experiments in Social Sciences at Ca’ Foscari University of Venice. A total of 360 participants took part in the study, with 60 participants assigned to each treatment and partitioned into unchanging groups of four members. This corresponds to 15 independent groups per treatment.

Upon arrival at the lab, participants were randomly assigned to a computer terminal. At the beginning of the experiment, instructions were distributed and read aloud (see the online Supplementary Material for the instructions used in the *LU* treatment). Before the first period began, participants were required to answer control questions at their terminals to ensure they had understood the procedures and instructions. Any questions from participants were addressed privately.

At the beginning of each period, the computer displayed 13 boxes to each participant: one for the private good (referred to as the “private account” in the instructions) and twelve for the projects (referred to as the “collective accounts”). To avoid framing effects, the projects were labeled using neutral color names. Moreover, the order in which the projects appeared on the screen was randomly determined for each subject. To prevent habituation effects, both the order and the color labels of the projects were reshuffled after the sixth round. Each of the 12 projects displayed its funding threshold and the bonus amounts for each player type. Given these thirteen options, participants allocated their entire endowment across the available accounts in each period. To facilitate comprehension, a summary table indicating the endowment and the preferred project for each role (*A*, *B*, *O*, and *U*) was also shown on the choice screen. Roles *A*, *B*, and *O* were majority members, and role *U* was the star member. For purposes of exposition, we will refer to these as the three  $\beta$  players and the  $\alpha$  player going forward.

In treatments with sequential contributions, each period consisted of two consecutive phases, depending on the order in which group members made their contribution decisions. Specifically, in *LU* and *LO*, player  $\alpha$  made her contribution in the first phase, followed by the  $\beta$  players in the second phase. Conversely, in *AU* and *AO*, the  $\beta$  players made their contributions first, followed by  $\alpha$  in the second phase. In both cases, before making their decisions, subjects in the second phase were provided with detailed information about the number of tokens contributed to each of the twelve projects in the first phase.

At the end of each period, participants were informed about the total tokens allocated to each collective account, whether the corresponding threshold had been met, and any bonuses awarded. They also received feedback on the number of points earned from each account and their total earnings for the period.

On average, participants earned €16.99 (including a €3 show-up fee) for approximately 90 minutes of participation. Most participants were undergraduate students in Economics, Management, Language Studies, or Philosophy, and were recruited using ORSEE (Greiner, 2015).

### 3. ANALYSIS

We study how coordination success, project selection, contributions, and payoffs vary with (i) the timing of the star's engagement – leader ( $L$ ), simultaneous ( $S$ ), anchor ( $A$ ) – and (ii) majority preferences – organized ( $O$ ) vs. unorganized ( $U$ ). The statistical analysis uses nonparametric and parametric techniques. The nonparametric tests are based on 15 independent observations at the group level per treatment. Conclusions of the nonparametric tests are based on exact p-values. Similarly, to account for potential dependence across periods, the estimated coefficients in the parametric regressions are obtained by properly accounting for both individual-level serial correlation and within-group dependence (by either clustering standard errors at the group level or introducing random effects at both the group and individual levels).

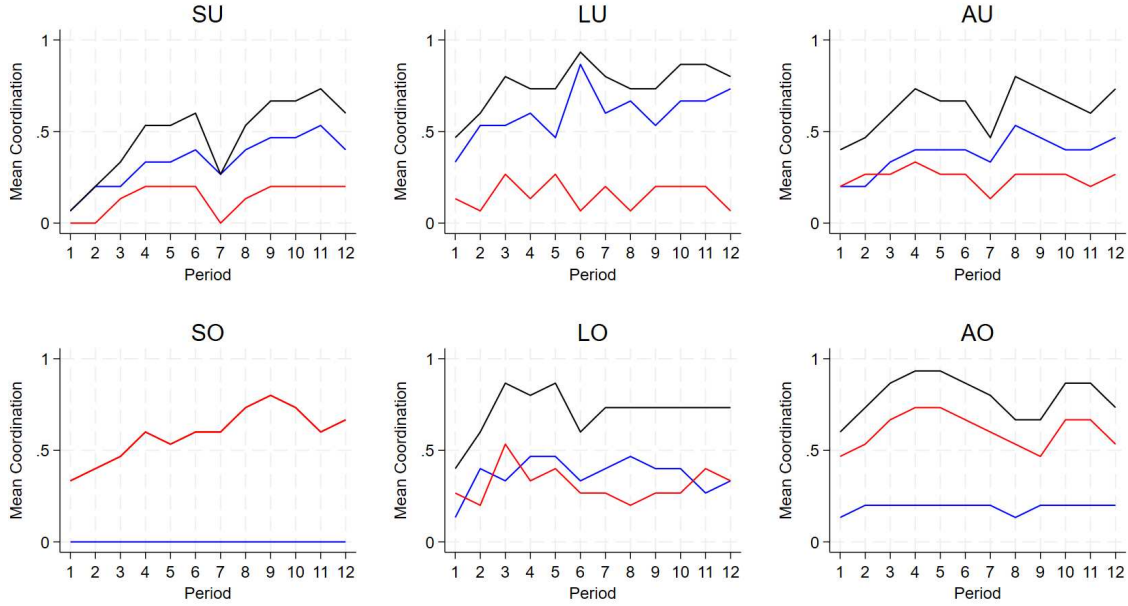
**3.1. Overall Success Rates and Payoffs.** In this section, we consider overall coordination rates aggregated over all projects and average payoffs aggregated over all players. In subsequent sections, we examine the differences by project and player type.

Figure 1 shows the share of groups that successfully funded a project across rounds by treatment. Table 2 reports the corresponding success rates and average payoffs, with the top panel providing the values of interest for this section. We observe similar patterns across treatments for both success rates and average payoffs. Therefore, we present these results together.

**Result 1.** Success rates and average payoffs are higher when the star is engaged sequentially rather than simultaneously.

A comparison of success rates and average payoffs across treatments shows that both are higher in sequential treatments (both  $L$  and  $A$ ) than in simultaneous contribution treatments ( $S$ ). The values under both the  $L$  and  $A$  treatments are higher than those under the corresponding  $S$  treatment with the same organization.

FIGURE 1. Success rates across rounds by treatment.



Notes. The figure reports the proportions of groups that successfully funded (i) any project (black line), (ii) the project preferred by  $\alpha$  (blue line), and (iii) any of the option(s) preferred by the majority (red line), over periods.

TABLE 2. Success rates and payoffs by treatment

	<i>SU</i>	<i>SO</i>	<i>LU</i>	<i>LO</i>	<i>AU</i>	<i>AO</i>
<i>Overall</i>						
Success rate (any project)	0.478	0.589	0.756	0.711	0.628	0.794
Avg payoffs (all players)	131.90 (87.47)	151.68 (85.12)	179.29 (70.13)	175.69 (73.40)	160.56 (69.68)	176.24 (63.68)
<i>Success rate by project type</i>						
Success rate ( $Proj_{\alpha}$ )	0.339	0.000	0.600	0.311	0.378	0.189
Success rate ( $Proj_{\beta}$ )	0.139	0.589	0.156	0.367	0.250	0.606
<i>Avg payoffs by player type</i>						
Star payoffs ( $\pi_{\alpha}$ )	145.24 (82.05)	177.36 (82.87)	185.88 (67.15)	195.11 (76.26)	180.61 (41.02)	195.63 (57.75)
Majority payoffs ( $\pi_{\beta}$ )	127.45 (88.83)	143.11 (84.21)	177.09 (71.02)	169.22 (71.32)	153.87 (75.76)	169.78 (64.29)

Notes. This table reports, for each treatment, the proportion of successful coordination on any project and the average total payoffs per round. Standard deviations for the payoff values are in parentheses.

Table 3 presents the results of a regression analysis that combines data across treatments, exploring how the probabilities of successfully funding a project and the average payoffs are affected by the two manipulated dimensions and differences across treatments. The positive and significant coefficients of *Sequential* (columns 1 and 4), *Leader* and *Anchor* (columns 2 and 5) show that sequentiality, both through leader and anchor roles, increases team success and payoffs with respect to the simultaneous treatments, while *Organized* is never significant.

Columns 3 and 6 further explore the details of this result on sequentiality, highlighting how it differs between unorganized and organized treatments.

We observe similar magnitude outcomes for both success rates ( $p = 0.671$ ) and payoffs ( $p = 0.801$ ) under the two leadership treatments (*LU* and *LO*), confirming that organized preferences matter relatively little when the leader can effectively coordinate contributions by seeding a project. However, the gains to leadership (versus simultaneous engagement) are substantively higher when the majority's preferences are unorganized – which drives lower success rates ( $p = 0.009$ ) and payoffs ( $p = 0.001$ ) under simultaneous engagement. This supports the idea that leadership is more important for success when coordination is more challenging.

In contrast, when focusing on treatments with organized majorities, engaging the star as an anchor leads to the highest success rates (79.4%) and payoffs (176.24).<sup>9</sup> Anchoring facilitates coordination on effort, leading to better outcomes when earlier contributors can effectively bring one of the projects within reach of its threshold – a task that is more challenging when they are unorganized.

Majority organization is thus not driving success or payoffs, on average. However, the interaction between organization and timing matters in ways consistent with the above discussion.

In particular, the leadership treatments, the star's seeding helps overcome the selection dimension of the coordination problem, and organization provides only modest and insignificant additional help. However, organization matters with anchoring, increasing coordination on selection, while allowing for increased overall success due to the coordination on effort facilitated by anchoring.

These results support the primary prediction in section 2. The observed patterns support the idea that leadership primarily facilitates coordination by overcoming the first dimension of coordination failure: selection. It yields greater benefits (relative to simultaneous engagement) when the majority's attention is unorganized. Anchoring, on the other hand, mitigates effort failures, leading to the highest success rates and payoffs when the majority has organized preferences and coordination prior to anchoring is less challenging. This behavioral asymmetry is consistent with the dual coordination mechanisms outlined in the framework.

**3.2. Project Selection.** Next, we consider which projects are implemented, distinguishing between the star-preferred option ( $Proj_{\alpha}$ ) and any majority-preferred option ( $Proj_{\beta}$ ). The success rates for both project types are included in the bottom panel of Table 2.

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<sup>9</sup>Compared with the respective simultaneous treatment, *SO*,  $p = 0.058$  for the success rate,  $p = 0.084$  for profits.

TABLE 3. Successful coordination and profit: parametric results.

	(1)	(2)	(3)	(4)	(5)	(6)
	<i>Success(any)</i>	<i>Success(any)</i>	<i>Success(any)</i>	<i>Avg Payoffs</i>	<i>Avg Payoffs</i>	<i>Avg Payoffs</i>
<i>Organized</i>	0.078 (0.065)	0.078 (0.065)		10.624 (8.383)	10.624 (8.350)	
<i>Sequential</i>	0.189*** (0.072)			31.158*** (9.921)		
<i>Leader</i>		0.200** (0.082)			35.703*** (11.103)	
<i>Anchor</i>		0.178** (0.081)			26.614** (10.593)	
<i>Focus</i>			0.111 (0.123)			19.778 (17.669)
<i>LU</i>			0.278*** (0.106)			47.389*** (14.720)
<i>LO</i>			0.122 (0.123)			24.017 (16.360)
<i>AU</i>			0.150 (0.120)			28.658* (15.042)
<i>AO</i>			0.206* (0.108)			24.569* (14.823)
Constant	0.494*** (0.070)	0.494*** (0.070)	0.478*** (0.087)	136.474*** (9,765)	136.474*** (9,765)	131.897*** (12,402)
Obs.	1,080	1,080	1,080	1,080	1,080	1,080
Groups	90	90	90	90	90	90
Wald $\chi^2$	8.23	8.20	11.79	11.36	11.77	14.55
$p > \chi^2$	0.016	0.042	0.038	0.003	0.008	0.013

Notes. Columns (1)-(3) report estimates (robust standard errors in parentheses) from GLS random-effects linear probability, where the dependent variable is a dummy that takes a value of 1 if the group successfully funded a project in the period. Columns (4)-(6) report estimates (robust standard errors in parentheses) from GLS random-effects, where the dependent variable is the group-level average of per-period earnings. *Organized* is a dummy variable equal to 1 in treatments where the majority have organized preferences, and 0 otherwise. *Sequential* is a dummy variable equal to 1 in treatments with sequential contributions, and 0 otherwise. *L (A)* is a dummy equal to 1 when  $\alpha$  contributes first (last), and 0 otherwise. *Focus* is a dummy equal to 1 in the organized simultaneous treatment (SO), and 0 otherwise. *LU*, *LO*, *AU*, and *AO* are treatment dummies. Statistical significance is denoted: \*  $p < 0.1$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ .

**Result 2.** When the majority is organized, groups tend to implement the majority’s preferred project. When the majority is unorganized, the group tends to implement the star’s preferred project.

This suggests that the star’s “power” to dictate the project choice can be neutralized by the majority’s focused preferences on an alternative option, regardless of timing.

Table 6 in the Appendix extends the consideration of success rates in Table 3 to account for project types, providing supporting evidence for these insights. That analysis shows that majority organization simultaneously decreases success of *Proj $_{\alpha}$*  ( $p = 0.077$ ) and increases success of *Proj $_{\beta}$*  ( $p = 0.001$ ), while sequentiality increases the probability of implementing *Proj $_{\alpha}$*  ( $p = 0.002$ ), while its impact on *Proj $_{\beta}$*  ( $p = 0.319$ ) implementation is more moderate – positive but not statistically significant.

In all unorganized treatments, *Proj $_{\alpha}$*  is implemented more frequently than *Proj $_{\beta}$* , particularly in *LU*, where it succeeds nearly four times more often than any of the projects preferred by the majority ( $p = 0.007$ ). Conversely, in all organized treatments, *Proj $_{\beta}$*  is funded more frequently than *Proj $_{\alpha}$* . This

TABLE 4. How group members split the cost of funding a project in the six treatments.

	<i>SU</i>	<i>SO</i>	<i>LU</i>	<i>LO</i>	<i>AU</i>	<i>AO</i>
<i>Coord(any)=I</i>						
$c_{any}$	39.06 (20.56)	39.21 (12.37)	38.35 (18.29)	39.80 (15.56)	35.86 (19.99)	34.29 (15.68)
$c_{\alpha,any}$	62.15 (15.10)	43.46 (15.40)	60.99 (14.41)	50.35 (20.19)	61.18 (13.14)	47.83 (17.92)
$c_{\beta,any}$	31.36 (15.83)	37.79 (10.85)	30.81 (12.21)	36.28 (11.76)	27.42 (13.80)	29.77 (11.83)

Notes. This table reports mean per-period contributions (standard deviation in parentheses) to the funded project. The reported panel considers all cases in which a project is successfully funded. The appendix reports similar results by project type.

difference is significant in *AO* ( $p = 0.077$ ) and *SO* ( $p = 0.000$ ), with *Proj $\alpha$*  never being successfully funded in the latter treatment.

**3.3. Contributions and Payoffs.** Table 4 shows how groups divide costs when they successfully collaborate and implement a project. On average, the star contributes more than each majority player to successful projects in every treatment.<sup>10</sup>

This gap is highest in the unorganized treatments,<sup>11</sup> where it exceeds the endowment differences.<sup>12</sup> In this way, the contribution profile in the unorganized treatments is highly progressive, more than offsetting the initial star endowment advantage.<sup>13</sup>

Additionally, we see no evidence of a first-mover advantage or last-mover disadvantage in terms of contributions. The support of the star for a successful project is similar whether they serve as leader or anchor (see Appendix A.2). If anything, they contribute a little less to support projects when they serve as anchor than when they serve as leader in the organized treatments. Together, these insights suggest that group contributions are more consistent with principles of cooperation and equity than leadership power and rent-seeking.

Table 2 shows per-period payoffs by player type. While the average payoffs for stars is consistently higher than that for the majority players across treatments, the gap is substantially smaller than what it would have been in the absence of teamwork (i.e., with no contributions to any project, the star would have

<sup>10</sup>According to Wilcoxon rank-sum tests conducted at the group level, the star contributes significantly more than each majority player in all treatments: *SU* ( $p < 0.001$ ), *SO* ( $p = 0.020$ ), *LU* ( $p < 0.001$ ), *LO* ( $p = 0.003$ ), *AU* ( $p < 0.001$ ), *AO* ( $p = 0.001$ ).

<sup>11</sup>The star tends to contribute more, while the majority players tend to contribute less, in *U* treatments compared to *O* treatments, for any timing. (Though the higher star contributions under *U* vs. *O* is significant only under simultaneous ( $p = 0.001$ ) and anchor ( $p = 0.002$ ), not in leadership ( $p = 0.113$ ) timing, and the lower majority contributions under *U* vs. *O* is significant only under simultaneous ( $p = 0.050$ ) and leader ( $p = 0.002$ ), not anchor ( $p = 0.160$ ) timing.

<sup>12</sup>i.e., The star contributes between 30.18 and 33.76 additional tokens, while their endowment advantage was 28 additional tokens.

<sup>13</sup>However, the higher probability of implementing *Proj $\alpha$*  than *Proj $\beta$*  in the *U* treatments means that the star may still be better off.



earned 152 and each majority player 96, representing a 56 point star advantage).<sup>14</sup> Additionally, there is no evidence of a first-mover advantage or a last-mover disadvantage, with the data showing that sequentiality makes everyone better off, regardless of whether the star moves first or last. This again suggests that groups converge towards relatively equitable selection and cost-division outcomes, with early contributors choosing actions consistent with collaboration and teamwork rather than rent seeking.

**Result 3.** While early contributors may direct attention towards their own preferred projects, there is no evidence of a first-mover advantage or last-mover disadvantage in terms of contributions and payoffs. Instead, sequentiality benefits all players, while groups tend to divide costs progressively.

This pattern of progressive cost sharing, where higher-capacity members contribute disproportionately more, mirrors recent evidence from Corazzini et al. (2024). This behavioral regularity helps explain why we observe the alignment of efficiency and equity: because the star voluntarily bears a larger burden, the timing that maximizes total team success does not come at the expense of the majority’s welfare.

The appendix provides a more detailed analysis of contribution and payoff patterns, supporting these findings.

**3.4. Design Objectives: Success, Payoffs, and Equity.** Institutional designers may value different outcomes: (i) overall success (probability of implementation), (ii) total payoffs (efficiency), (iii) the welfare of the star, (iv) the welfare of the majority, or (v) equity between them. Table 5 summarizes each treatment on these dimensions.

TABLE 5. Summary of Success, Payoffs, and Inequality by Treatment.

Treatment	Success %	Total Payoff	$\alpha$ Payoff	$\beta$ Payoff	$\beta/\alpha$
SU	47.8	131.9	145.2	127.5	0.876
LU	75.6	179.3	185.9	177.1	0.953
AU	62.8	160.6	180.6	153.9	0.852
SO	58.9	151.7	177.4	143.1	0.807
LO	71.1	175.7	195.1	169.2	0.867
AO	79.4	176.2	195.6	169.8	0.868

Surprisingly, given the majority’s degree of organization, the relative ranking of the timing treatments (conditional on organization) is consistent across all outcome measures: the timing that maximizes the payoff for the star also maximizes the payoff for the majority and leads to the most equitable outcomes.

<sup>14</sup>For each treatment, star and majority payoffs are compared to the no-teamwork benchmark. The null hypothesis that the majority payoff equals 96 is rejected in all treatments (*SU*:  $p = 0.012$ ; *SO*:  $p < 0.001$ ; *LU*:  $p < 0.001$ ; *LO*:  $p < 0.001$ ; *AU*:  $p < 0.001$ ; *AO*:  $p < 0.001$ ). The null hypothesis that the star payoff equals 152 is rejected in all treatments except *SU* ( $p = 0.617$ ): *SO* ( $p = 0.056$ ), *LU* ( $p < 0.001$ ), *LO* ( $p < 0.001$ ), *AU* ( $p = 0.003$ ), and *AO* ( $p < 0.001$ ).

This unexpected finding stems from the fact that sequentiality does not tend to disproportionately benefit those who contribute first in terms of contributions or payoffs. Regardless of whether the star leads or anchors a team, the groups converge to outcomes involving progressive cost sharing, with the star contributing a higher share of overall costs and more equitable payoffs than would have occurred without teamwork. Inequality is lowest (the  $\beta/\alpha$  payoff ratio closest to 1) and payoff highest in the LU treatment, suggesting that when the majority is unorganized, the star's leadership can both improve payoffs and fairness of outcomes.

When the majority has unorganized preferences, leadership results in the best outcomes across all measures. When the majority is organized, however, anchoring results in the best outcomes across all measures. In terms of team members' payoffs, leadership yields only marginally (and insignificantly) lower outcomes than anchoring when the majority is organized. However, any team leader primarily concerned with successful implementation will favor anchoring when there is an organized majority. This informs the following design implications:

- *Maximizing success rates*: choose sequential timing. Have the star lead when the group is unorganized (LU) and anchor when the group is organized (AO).
- *Maximizing Payoffs (Star, Majority, or Equality)*: choose sequential timing. Have the star lead when the group is unorganized (LU) and either lead or anchor when it is organized (AO or LO).

## 4. DISCUSSION

**4.1. Managerial and Institutional Implications.** The experiment suggests simple, adaptable rules for designing collective efforts. When a group is unorganized—lacking a salient preferred alternative—early visible engagement by a star effectively concentrates effort and overcomes coordination failure. Conversely, when a group is already organized around a salient option, deferring the star's engagement avoids redundancy and provides the assurance needed to prevent wasted effort. The corresponding managerial principle may apply across a wide range of contexts: lead when unorganized, anchor when already organized.

Within organizations, this insight informs when team leaders or star team members should kickoff versus finalize projects. In crowdfunding and charitable fundraising, it clarifies when to prioritize seed donations (leadership) versus matching grants (anchoring). In grassroots initiatives, it suggests when high-profile advocates should act early to unify dispersed supporters, or late to guarantee success once a shared direction exists.

These experimental findings resonate with strategies observed in major philanthropic initiatives. For instance, the Bill & Melinda Gates Foundation's early mobilization against malaria serves as a classic example

of leadership in a fragmented landscape: moving first to establish a focal point that coordinates resources toward a single outcome.<sup>15</sup> Conversely, the Chan Zuckerberg Initiative often adopts an anchoring strategy, explicitly funding established grassroots movements to provide the critical support needed to ensure pre-existing projects succeed.<sup>16</sup>

**4.2. Broader Implications and Future Research.** Beyond these immediate design rules, the results identify behavioral regularities that likely extend to the field for two reasons. First, the strategic trade-off between setting direction and ensuring completion is fundamental. The tension between unifying a unfocused group (favoring leadership) and closing a resource gap for an already focused group (favoring anchoring) is a structural feature of collective action, regardless of the setting.

Second, the robust emergence of progressive cost-sharing mirrors the implicit contracts and "noblesse oblige" often observed in successful venture syndicates and philanthropic consortia. We find that equitable behavior can make efficiency and fairness self-reinforcing rather than conflicting objectives. Because the star voluntarily bears a larger burden to ensure success, the timing that maximizes the group's probability of success also maximizes the welfare of its most vulnerable members in a given context. At the same time, when the star serves as anchor, equitable norms prevent earlier contributors from free-riding and shifting a potentially unsustainable cost burden onto the star.

Future work should explore when this alignment breaks down. While our groups consistently adopted cooperative norms, this goodwill may erode when capacity differences are more extreme, preferences are more misaligned, or returns are uncertain. Extending the framework to field settings, such as open-source collaborations or multi-team R&D consortia, would further clarify how leadership timing and group organization interact in sustained, real-world collective efforts.

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<sup>15</sup>Faced with international development efforts that were inefficiently spread across disparate goals, the Foundation used its high-capacity status to move first, establishing a single, actionable outcome. See: <https://www.thefundingnetwork.org.uk/news/gates-foundation-invests-collective-giving-movement>

<sup>16</sup>The Initiative explicitly contrasts their approach with top-down agenda setting: "We believe grassroots movements are key to sustained social change" as focusing on the solutions supported by "the people most affected by challenges [...] will make us more effective and help us to have a greater impact[...]" <https://chanzuckerberg.com/newsroom/grassroots-movements-are-key-to-sustained-social-change/>

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## APPENDIX A. DETAILED ANALYSES

TABLE 6. Successful coordination by project type: parametric results.

	(1)		(2)		(3)	
	<i>Success Proj<math>\alpha</math></i>	<i>Success Proj<math>\beta</math></i>	<i>Success Proj<math>\alpha</math></i>	<i>Success Proj<math>\beta</math></i>	<i>Success Proj<math>\alpha</math></i>	<i>Success Proj<math>\beta</math></i>
<i>Organized</i>	-0.683*	1.231***	-0.738*	1.267***		
	(0.407)	(0.387)	(0.418)	(0.388)		
<i>Sequential</i>	1.363***	0.372				
	(0.440)	(0.373)				
<i>Leader</i>			1.674***	0.004		
			(0.469)	(0.478)		
<i>Anchor</i>			0.993*	0.642		
			(0.529)	(0.417)		
<i>SO</i>					-16.061***	1.684***
					(0.535)	(0.654)
<i>LU</i>					1.331**	0.872
					(0.537)	(0.751)
<i>LO</i>					0.671	1.399*
					(0.630)	(0.733)
<i>AU</i>					0.447	0.926
					(0.574)	(0.753)
<i>AO</i>					0.348	2.405***
					(0.803)	(0.673)
Constant	-0.781*	-0.950***	-0.767*	-0.975***	-0.432	-1.324**
	(0.427)	(0.345)	(0.426)	(0.348)	(0.417)	(0.545)
Obs.	1,074		1,074		1,074	
Groups	90		90		90	
Wald $\chi^2$	32.59		35.72		2,819.33	
$p > \chi^2$	0.000		0.000		0.000	

Notes. Columns (1)–(3) report estimates (clustered standard errors in parentheses) from multinomial logistic regressions. *Organized* is a dummy variable equal to 1 in treatments where the majority has organized preferences, and 0 otherwise. *Sequential* is a dummy variable equal to 1 in treatments with sequential contributions, and 0 otherwise. *L (A)* is a dummy equal to 1 when  $\alpha$  contributes first (last), and 0 otherwise. *SO*, *LU*, *LO*, *AU*, and *AO* are treatment dummies. The multinomial logistic regressions are based on 1074 (instead of 1080) observations because one group in *LO* coordinated on a non-selected project in all of the 6 periods of the second phase. Statistical significance is denoted as follows: \*  $p < 0.1$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ .

**A.1. Interactions between timing, organization, and project selection.** These insights are further analyzed through multinomial logistic regressions presented in Table 3. The first model in (1) shows that introducing an organized majority makes groups more likely to shift from a situation in which they fund the project preferred by the star performer to the baseline outcome of no successful coordination, although this effect is only marginally significant (for the coefficient of *Organized* in the first column of (1),  $p = 0.093$ ). In contrast, the organization manipulation significantly increases the likelihood of moving from the baseline to a situation in which the majority's preferred project is funded (for the coefficient of *Organized* in the second column of (1),  $p = 0.001$ ). Sequentiality significantly increases the probability of moving from the baseline to the funding of the project preferred by the star performer (for the coefficient of *Sequentiality* in the first column of (1),  $p = 0.002$ ), but does not significantly affect the probability of funding the majority's preferred project (for the coefficient of *Sequentiality* in the second column of (1),  $p = 0.319$ ).

To further unpack this effect of sequentiality, the second multinomial logistic model differentiates between the two types of sequentiality. The results suggest that what truly drives the shift from no coordination

to funding the star performer's preferred project is allowing the star performer to act as a leader and contribute first (for the coefficient of  $L$  in the first column of (2),  $p < 0.001$ ), while having the star performer contribute after the majority only yields marginally significant results (for the coefficient of  $A$  in the first column of (2),  $p = 0.061$ ). In line with previous observations, both forms of sequentiality are irrelevant in determining the probability of transitioning from the baseline to funding (any of) the project(s) preferred by the majority.

Finally, the third multinomial logistic model introduces treatment dummies that are useful for conducting pairwise comparisons between treatments. A first noteworthy observation concerns the fact that, in  $SU$  and relative to the baseline situation, the difference between the probability of funding the project preferred by the star performer and the probability of funding (any of) the project(s) preferred by the majority (for the difference between the two constant terms in model (3),  $p = 0.174$ ) is not significant. However, as indicated by Table 2, there is a rather large difference in the proportions of successful coordination between the two categories of projects (while groups successfully fund the project preferred by the star performer in 33.9% of cases, the percentage drops to 13.9% when considering the project(s) preferred by the majority). This finding contrasts with the results reported by Corazzini et al. (2024). In their benchmark treatment with simultaneous contributions and heterogeneous group members (in both preferences and initial endowments), the authors document a strong tendency for groups to successfully fund the project preferred by the wealthy, relative to any of the other alternatives. A possible explanation for this discrepancy is that, in the present study, the opposition between the star performer and the majority is much more pronounced. Indeed, while in the  $SU$  treatment of the present study the majority holds aligned, albeit diffused, preferences over their preferred projects, in the benchmark treatment of Corazzini et al. (2024) the less endowed subjects have misaligned preferences over the alternatives, such that each subject has her own preferred alternative. This may have exacerbated the perceived discord between the preferences of the star performer and those of the majority.

We now turn to the effects of the two manipulated dimensions. Starting with the organized manipulation and in line with the findings illustrated above, we find that, under simultaneous contributions and relative to the baseline, introducing an organized majority significantly reduces the probability of funding the project preferred by the star performer (for the coefficient of  $SO$  in the first column of model (3),  $p < 0.001$ ) and significantly increases the probability of funding the alternatives preferred by the majority (for the coefficient of  $SO$  in the second column of model (3),  $p = 0.010$ ). When the star performer acts as a leader and



contributes first, the organized manipulation exerts no significant effect either on the probability of transitioning from the baseline to funding the project preferred by the star performer (for the difference between  $LU$  and  $LO$  in the first column of model (3),  $p = 0.257$ ) or on the probability of transitioning from the baseline to funding the project preferred by the majority (for the difference between  $LU$  and  $LO$  in the second column of model (3),  $p = 0.459$ ). In contrast, when the star performer acts as an anchor and contributes after the majority, the organized manipulation significantly increases the probability of transitioning from the baseline to funding the project preferred by the majority (for the difference between  $AU$  and  $AO$  in the second column of model (3),  $p = 0.023$ ), while it does not affect the probability of transitioning from the baseline to funding the project preferred by the star performer (for the difference between  $AU$  and  $AO$  in the first column of model (3),  $p = 0.900$ ).

Looking at the effects of sequentiality, we find that, regardless of the organized manipulation and relative to the baseline situation, letting the star performer act as a leader and contribute first significantly increases the probability of funding her preferred project (for the coefficient of  $LU$  in the first column of model (3),  $p = 0.013$ ; for the difference between  $SO$  and  $LO$  in the first column of model (3),  $p < 0.001$ ). A similar effect is not found when the star performer acts as an anchor and contributes after an unorganized majority: in  $AU$ , the probability of funding her preferred option increases only slightly and not significantly (coefficient in the first column of model (3),  $p = 0.436$ ). This suggests that the positive effect of sequentiality on coordination around the rich-preferred project is mainly driven by situations in which the star performer contributes first.

In contrast, when the majority moves first with a salient focus ( $AO$ ), we observe a significant increase in coordination on the star performer's preferred option relative to the simultaneous case ( $SO$ ), where that project is never selected (for the difference between  $SO$  and  $AO$ ,  $p < 0.001$ ). Finally, regardless of the form in which it is introduced, sequentiality does not significantly influence the probability of transitioning from the baseline to funding the project preferred by the majority (for the coefficient of  $LU$ ,  $p = 0.245$ ; for the difference between  $SO$  and  $LO$ ,  $p = 0.639$ ; for the coefficient of  $AU$ ,  $p = 0.218$ ; for the difference between  $SO$  and  $AO$ ,  $p = 0.178$ ).

**Result A1** *The organized manipulation increases the likelihood of funding the project preferred by the majority, particularly under simultaneous contributions and when the star performer contributes after the majority. Sequentiality increases the likelihood of funding the project preferred by the star performer, but*

only when she contributes first (i.e., acts as a leader). When the majority moves first, sequentiality does not significantly affect which project is funded.

## A.2. Dynamic Contribution Strategies.

A.2.1. *Seeding contributions.* To explore whether initial contributions are used to bring attention to a preferred option to the group in treatments with sequentiality, Table 7 reports the average contributions of first movers (the star performer in *LU* and *LO*, and the majority in *AU* and *AO*) to their preferred projects (respectively *Proj<sub>α</sub>* and *Proj<sub>β</sub>*).

TABLE 7. First-mover contributions in the four treatments with sequentiality

	<i>LU</i>		<i>LO</i>		<i>AU</i>		<i>AO</i>	
	<i>Period 1</i>	<i>Overall</i>	<i>Period 1</i>	<i>Overall</i>	<i>Period 1</i>	<i>Overall</i>	<i>Period 1</i>	<i>Overall</i>
$c_{j,Proj_{\alpha}}$	35.933 (28.032)	42.067 (19.453)	25.400 (23.102)	24.406 (18.421)	10.533 (17.630)	13.572 (11.663)	7.711 (12.065)	7.304 (12.495)
$c_{j,Proj_{\beta}}$	15.467 (25.439)	12.017 (13.370)	25.667 (28.480)	18.167 (20.558)	20.889 (17.358)	10.741 (10.468)	24.489 (15.874)	22.137 (10.340)
<i>Difference</i>	20.467	30.050	-0.267	6.239	-10.356	2.831	-16.778	-14.833
<i>p</i>	0.165	0.005	0.688	0.344	0.034	0.733	0.000	0.035

Notes. This table reports means and standard deviations (in parentheses, below the means) of contributions made by the first movers ( $\alpha$  in *LU* and *LO*, and the majority in *AU* and *AO*) to their preferred projects (respectively *Proj<sub>α</sub>* and *Proj<sub>β</sub>*), either in the first period or across all repetitions. The table also reports significance levels from a (two-sided) Wilcoxon signed-rank test for the null hypothesis that the difference between the contributions to *Proj<sub>α</sub>* and *Proj<sub>β</sub>* is zero.

Only in *LU* and *AO* do we observe first movers clearly attempting to steer the group's choice towards their preferred projects. First, when the star performer moves first and the majority is unorganized (*LU*), contributions are heavily concentrated on *Proj<sub>α</sub>* (over all periods,  $p = 0.005$  while in the first period  $p = 0.165$ ) relative to contributions to *Proj<sub>β</sub>*. Second, when the organized majority moves first (*AO*), their preferred project, *Proj<sub>β</sub>*, attracts most contributions, with the difference relative to *Proj<sub>α</sub>* being highly significant both in the first period ( $p < 0.001$ ) and over all repetitions ( $p = 0.035$ ).

By contrast, in the two remaining treatments with sequentiality, *LO* and *AU*, first-mover contributions are more evenly distributed and do not display a strong directional pattern. In *LO*, the presence of a focal alternative for the majority deters the star performer from committing to her preferred project, as the majority possesses sufficient resources to fund *Proj<sub>β</sub>* independently (the differences between  $c_{j,Proj_{\alpha}}$  and  $c_{j,Proj_{\beta}}$  yield  $p = 0.688$  in the first period and  $p = 0.344$  over all periods). In *AU*, the absence of a focal project leaves the three simultaneous first movers without a reference alternative, leading them to contribute in a more fragmented manner (with  $p = 0.733$  for the overall difference, while  $p = 0.034$  in the first period).

**Result A2.** *First movers use their initial contributions to signal their preferred alternative either when the star performer acts as a leader and the majority is unorganized, or when the star performer acts as an anchor and the majority is organized.*

A.2.2. *Following contributions.* Tables 8 and 9 investigate parametrically how second movers react to first-mover contributions when the star performer acts as a leader and as a anchor, respectively.

TABLE 8. Second-mover contributions in *LU* and *LO*: parametric results.

	<i>LU</i>				<i>LO</i>			
	$c_{\beta, Proj\_ \alpha}$		$c_{\beta, Proj\_ \beta}$		$c_{\beta, Proj\_ \alpha}$		$c_{\beta, Proj\_ \beta}$	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
$c_{\alpha, Proj\_ \alpha}$	0.310*** (0.023)	0.638*** (0.088)	-0.130*** (0.022)	-0.262*** (0.078)	0.395*** (0.025)	0.514*** (0.080)	-0.127*** (0.030)	-0.063 (0.095)
$c_{\alpha, Proj\_ \beta}$	-0.112*** (0.029)	-0.317*** (0.088)	0.298*** (0.027)	0.889*** (0.079)	-0.050* (0.028)	-0.295*** (0.078)	0.391*** (0.034)	0.775*** (0.092)
$(c_{\alpha, Proj\_ \alpha})^2$		-0.005*** (0.001)		0.002** (0.001)		-0.002 (0.001)		-0.001 (0.001)
$(c_{\alpha, Proj\_ \beta})^2$		0.003*** (0.001)		-0.009*** (0.001)		0.004*** (0.001)		-0.006*** (0.001)
<i>Constant</i>	8.515*** (1.824)	7.179*** (1.922)	9.710*** (1.552)	7.717*** (1.563)	5.640*** (2.167)	5.351*** (2.089)	10.760*** (2.901)	10.005*** (2.922)
Obs.	540	540	540	540	540	540	540	540
Groups	15	15	15	15	15	15	15	15
Wald $\chi^2$	530.300	597.450	476.130	665.760	489.650	519.350	361.120	395.730
$p > \chi^2$	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Notes. This table reports estimates (standard errors in parentheses) from two-way linear random-effects models that account for both individual-level serial correlation and within-group dependence. The dependent variable is the contribution made by each subject of the majority in the second stage of the period to either *Proj\_α* (columns 1-2 and 5-6) or *Proj\_β* (columns 3-4 and 7-8).  $c_{\alpha, Proj\_ \alpha}$  and  $c_{\alpha, Proj\_ \beta}$  is the contribution made by  $\alpha$  in the first stage of the period respectively to *Proj\_α* and *Proj\_β*.  $(c_{\alpha, Proj\_ \alpha})^2$  and  $(c_{\alpha, Proj\_ \beta})^2$  are quadric terms. Statistical significance is denoted as follows: \*  $p < 0.1$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ .

Results reported in Table 8 reveal a clear pattern: the majority tend to follow the signaling contributions made by the star performer when she acts as a leader. Looking at columns (1), (3), (5), and (7), we find that, in both *LU* and *LO*,  $c_{\beta, Proj\_ \alpha}$  significantly increases in  $c_{\alpha, Proj\_ \alpha}$  and significantly decreases in  $c_{\alpha, Proj\_ \beta}$ , while the opposite holds for  $c_{\beta, Proj\_ \beta}$ : it increases with  $c_{\alpha, Proj\_ \beta}$  and decreases with  $c_{\alpha, Proj\_ \alpha}$ . This indicates that the more the star performer contributes to a specific project, the more the majority aligns their contributions to that same good.

Including quadratic terms allows us to capture a non-linear reaction from the second movers. When the first mover's contribution is very small, second movers often hold back, perceiving the threshold as unattainable. As the initial contribution increases, second movers respond more actively, as their own tokens can meaningfully contribute to reaching the target. However, when the initial contribution becomes very large,

TABLE 9. Second-mover contributions in *AU* and *AO*: parametric results.

	<i>AU</i>				<i>AO</i>			
	$c_{\alpha, Proj\_ \alpha}$		$c_{\alpha, Proj\_ \beta}$		$c_{\alpha, Proj\_ \alpha}$		$c_{\alpha, Proj\_ \beta}$	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
$c_{\beta, Proj\_ \alpha}$	0.601*** (0.060)	0.820*** (0.248)	-0.108** (0.046)	-0.360** (0.149)	0.272 (0.170)	0.852*** (0.304)	-0.120 (0.104)	-0.430** (0.217)
$c_{\beta, Proj\_ \beta}$	-0.045 (0.043)	-0.220 (0.178)	0.450*** (0.060)	0.138 (0.212)	0.078 (0.059)	-0.249*** (0.070)	0.175 (0.135)	0.945*** (0.294)
$(c_{\beta, Proj\_ \alpha})^2$		-0.002 (0.003)		0.003** (0.001)		-0.005 (0.003)		0.003** (0.001)
$(c_{\beta, Proj\_ \beta})^2$		0.002 (0.002)		0.004 (0.003)		0.002*** (0.001)		-0.006*** (0.002)
<i>Constant</i>	1.271 (3.400)	0.493 (2.350)	5.540 (3.688)	7.057 (4.328)	0.076 (3.806)	9.203*** (3.108)	22.431* (12.399)	7.416 (10.092)
Obs.	180	180	180	180	180	180	180	180
Groups	15	15	15	15	15	15	15	15
Wald $\chi^2$	219.230	405.040	62.780	158.100	6.050	71.900	33.200	126.820
$p > \chi^2$	0.000	0.000	0.000	0.000	0.049	0.000	0.000	0.000

Notes. This table reports estimates (robust standard errors in parentheses) from GLS random-effects models. The dependent variable is the contribution made by  $\alpha$  in the second stage of the period to either *Proj\_α* (columns 1-2 and 5-6) or *Proj\_β* (columns 3-4 and 7-8).  $c_{\beta, Proj\_ \alpha}$  and  $c_{\beta, Proj\_ \beta}$  is the contribution made by the majority in the first stage of the period respectively to *Proj\_α* and *Proj\_β*.  $(c_{\beta, Proj\_ \alpha})^2$  and  $(c_{\beta, Proj\_ \beta})^2$  are quadratic terms. Statistical significance is denoted as follows: \*  $p < 0.1$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ .

the remaining gap to the threshold is small, reducing the incentive for further contributions. This concave pattern is particularly pronounced in *LU*, where the coefficient on  $(c_{\alpha, Proj\_ \alpha})^2$  is negative and significant.

Very similar evidence emerges from Table 9, which focuses on treatments in which the majority contribute first. We find that the star performer systematically follows the majority's signaling contributions: the more the majority concentrates contributions on a given project, the more the star performer contributes to that same good. Here too, the quadratic terms indicate a non-linear response, with the star performer contributing less when the majority's initial contributions are either very limited or very large.

**Result A3.** *Signaling contributions made by the first movers are effectively followed by the rest of the group members.*

**A.3. How Teams Share Project Costs.** Payoffs depend not only on which, if any, project is successful; they also depend on how groups share the cost of funding projects. Table 10 reports descriptive statistics on per-period contributions conditional on a project being successfully funded. We find that across all treatments, and irrespective of which project is funded, the star performer contributes substantially more

than the average contribution of the other group members. Table 11 provides a parametric confirmation of these descriptive patterns.

TABLE 10. How group members split the cost of funding a project in the six treatments.

	<i>SU</i>	<i>SO</i>	<i>LU</i>	<i>LO</i>	<i>AU</i>	<i>AO</i>
<i>Coord(any)=1</i>						
$c_{any}$	39.06 (20.56)	39.21 (12.37)	38.35 (18.29)	39.80 (15.56)	35.86 (19.99)	34.29 (15.68)
$c_{\alpha,any}$	62.15 (15.10)	43.46 (15.40)	60.99 (14.41)	50.35 (20.19)	61.18 (13.14)	47.83 (17.92)
$c_{\beta,any}$	31.36 (15.83)	37.79 (10.85)	30.81 (12.21)	36.28 (11.76)	27.42 (13.80)	29.77 (11.83)
<i>Coord(Proj-<math>\alpha</math>) = 1</i>						
$c_{Proj-\alpha}$	38.90 (21.78)	—	38.11 (18.98)	38.84 (15.07)	36.03 (19.44)	35.90 (18.89)
$c_{\alpha,Proj-\alpha}$	64.44 (14.58)	—	62.65 (13.21)	51.95 (14.67)	60.40 (14.15)	47.47 (22.37)
$c_{\beta,Proj-\alpha}$	30.39 (16.49)	—	29.93 (12.42)	34.47 (12.47)	27.91 (13.17)	32.05 (15.91)
<i>Coord(Proj-<math>\beta</math>) = 1</i>						
$c_{Proj-\beta}$	39.43 (17.30)	39.21 (12.37)	39.29 (15.39)	40.92 (16.09)	35.60 (20.85)	33.78 (14.53)
$c_{\alpha,Proj-\beta}$	56.56 (15.18)	43.46 (15.40)	54.61 (17.11)	48.46 (25.22)	62.36 (11.49)	47.94 (16.41)
$c_{\beta,Proj-\beta}$	33.72 (13.92)	37.79 (10.85)	34.19 (10.77)	38.41 (10.52)	26.68 (14.72)	29.06 (10.16)

Notes. This table reports mean per-period contributions (standard deviation in parentheses) to the funded project. The top panel considers all cases in which a project is successfully funded. The middle panel restricts attention to cases where  $\alpha$ 's preferred project is funded. The bottom panel refers to cases where the funded project is (one of) the majority-preferred project(s). Each panel reports average contributions overall, and separately for  $\alpha$  and the majority.

Starting with the simultaneous treatment with an unorganized majority (SU), we find that the star performer contributes more than the average contribution of others. This holds both when the funded project is her preferred option ( $c_{\alpha,Proj-\alpha} = 64.44$  versus  $c_{\beta,Proj-\alpha} = 30.39$ ,  $p < 0.001$ ) and when it is a majority-preferred option ( $c_{\alpha,Proj-\beta} = 56.56$  versus  $c_{\beta,Proj-\beta} = 33.72$ ,  $p < 0.001$ ). A similar pattern emerges in the simultaneous treatment with an organized majority (SO): although in this treatment only the majority-preferred project is successfully funded, the star performer still contributes more than the majority ( $c_{\alpha,Proj-\beta} = 43.46$  versus  $c_{\beta,Proj-\beta} = 37.79$ ,  $p = 0.017$ ). Auxiliary regressions<sup>17</sup> further show that, conditional on successfully funding a project,  $\alpha$  contributes more in SU than in SO ( $p < 0.001$ ).

**Result A4.** *In simultaneous treatments, the star performer consistently contributes more than the majority to fund a project. The presence of an organized majority reduces her contributions.*

<sup>17</sup>The additional regressions are available from the author upon request.

TABLE 11. Individual contributions: parametric results.

	<i>SU</i>	<i>SO</i>	<i>LU</i>	<i>LO</i>	<i>AU</i>	<i>AO</i>
$\alpha$	23.854*** (6.556)	7.822** (3.277)	30.235*** (3.946)	6.199 (4.243)	36.556*** (4.473)	19.451*** (3.392)
$Proj_{\alpha}$	-6.260* (3.561)		-0.267 (1.388)	-6.820*** (1.495)	2.506 (2.413)	3.063 (3.643)
$\alpha \times Proj_{\alpha}$	11.068 (7.121)		0.737 (2.776)	15.527*** (2.989)	-4.264 (4.827)	-3.376 (7.285)
<i>Constant</i>	35.060*** (3.278)	37.324*** (1.638)	30.798*** (1.973)	39.840*** (2.122)	25.613*** (2.237)	28.927*** (1.696)
<i>Obs.</i>	344	424	544	488	452	572
<i>Groups</i>	11	13	14	13	13	14
<i>Wald <math>\chi^2</math></i>	59.47	75.85	270.38	117.78	660.07	252.10
<i><math>p &gt; \chi^2</math></i>	0.000	0.000	0.000	0.000	0.000	0.000

Notes. This table reports coefficient estimates (standard errors in parentheses) from two-way linear random effects models accounting for potential individual dependency over periods and dependency within the group. The dependent variable is amount contributed by the subject to the funded project. Regressions are based on data from groups that successfully funded a project in the period.  $\alpha$  is a dummy variable equal to 1 for the star, and 0 otherwise.  $Proj_{\alpha}$  is a dummy variable equal to 1 if the funded project is the one preferred by  $\alpha$ , and 0 if it is the one preferred by the majority.  $\alpha \times Proj_{\alpha}$  is an interaction term. Statistical significance is denoted as follows: \*  $p < 0.1$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ .

In the treatments where the star performer contributes first (*LU* and *LO*), she again bears a disproportionate share of the funding cost. In *LU*, when groups successfully fund her preferred project ( $Proj_{\alpha}$ ), the star performer contributes on average 62.65 tokens, compared to 29.93 from the majority ( $p < 0.001$ ). A similar pattern arises when a majority-preferred project ( $Proj_{\beta}$ ) is funded: the star performer contributes 54.61 tokens, while the majority contribute 34.19 ( $p < 0.001$ ). In *LO*, when  $Proj_{\alpha}$  is funded, the star performer still contributes more than the majority (51.95 versus 34.47,  $p < 0.001$ ). However, when groups successfully fund the majority-preferred alternative, the gap narrows substantially (48.46 versus 38.41), and the difference is no longer significant ( $p = 0.144$ ). The fourth column of Table 11 further shows that in *LO* the star performer allocates significantly more to her preferred project than to the majority's preferred project ( $p = 0.001$ ), while the majority allocates significantly more to their preferred project than to the star performer's ( $p < 0.001$ ). Auxiliary regressions<sup>18</sup> indicate that, conditional on funding a project, in both *LU* and *LO*,  $\alpha$  does not exploit the first-mover position but instead contributes large amounts in the first stage.

**Result A5.** *When  $\alpha$  moves first, she consistently contributes more than the majority. The gap in contributions narrows substantially in the presence of an organized majority, especially when coordination occurs on the majority-preferred project.*

<sup>18</sup>The additional regressions are available from the author upon request.

In the treatments where the majority moves first (*AU* and *AO*),  $\alpha$  still contributes more than the rest of the group. In *AU*, when coordination occurs on *Proj* $_{\alpha}$ ,  $\alpha$  contributes 60.40 tokens, compared to 27.91 from the majority ( $p < 0.001$ ). A similar difference arises when coordination occurs on *Proj* $_{\beta}$ :  $\alpha$  contributes 62.36 tokens, while the majority contribute 26.68 ( $p < 0.001$ ). In *AO*, the presence of an organized majority reduces this gap. When *Proj* $_{\alpha}$  is funded,  $\alpha$  contributes 47.47 tokens versus 32.05 for the majority ( $p = 0.013$ ). When *Proj* $_{\beta}$  is funded, she contributes 47.94 and the majority 29.06 ( $p < 0.001$ ). Auxiliary regressions (reported in the Appendix) show that, relative to simultaneous treatments, in both *AU* and *AO* the majority partially exploit their first-mover position by lowering their contributions in the initial stage. This effect is especially pronounced in *AO*, where the combination of contributing first and having a single preferred option allows the majority to rely more heavily on  $\alpha$ 's contributions, while in *AU* the effect is weaker and limited to cases where coordination occurs on a majority-preferred option.

**Result A6.** *When the majority contribute first (star as anchor),  $\alpha$  continues to bear a larger share of the funding cost, with the gap in contributions narrowing in the presence of an organized majority. Compared to simultaneous treatments, the majority partially exploits their first-mover position by contributing less in the initial stage, an effect that is especially visible when they face a single preferred alternative.*

Overall, the previous results imply that, across all treatments,  $\alpha$  ends up contributing more than the majority to fund projects. First-mover contributions provide a clear signal only in *LU* and *AO*, and in all sequential settings second movers tend to follow these signals. The presence of an organized majority reduces the effort of  $\alpha$  to fund a project. While  $\alpha$  does not exploit the first-mover position, the majority partially does when they move first and face a single preferred alternative.

**A.4. Earnings and welfare implications.** As a final step of the analysis, we turn our attention to subjects' earnings. Our main goal is to assess how the two experimental manipulations, introducing sequential contributions and organizing the majority on a single project, affect individual earnings. Additionally, we present results concerning welfare inequality across group members under the six treatments. The second part of Table 12 reports descriptive statistics on per-period earnings, both averaged across all group members and disaggregated by type (advantaged subject vs. majority).

Group members earn more in treatments with sequential contributions compared to simultaneous settings. Furthermore, the organized manipulation tends to increase earnings, with the sole exception occurring when  $\alpha$  contributes first. A closer inspection of type-specific earnings reveals that this exception is primarily driven by lower earnings for the majority in *LO* compared to *LU*.

TABLE 12. Per-period earnings in the six treatments: Descriptive statistics

	<i>SU</i>	<i>SO</i>	<i>LU</i>	<i>LO</i>	<i>AU</i>	<i>AO</i>
<i>Coord(any)=0</i>						
$\pi$	57.33 (46.24)	58.92 (44.28)	67.23 (40.35)	74.10 (43.27)	83.60 (48.71)	69.49 (47.94)
$\pi_\alpha$	82.15 (61.24)	90.05 (53.34)	84.73 (52.21)	94.38 (52.00)	143.85 (31.92)	115.62 (55.51)
$\pi_\beta$	49.06 (36.58)	48.54 (35.28)	61.39 (33.81)	67.33 (37.78)	63.52 (34.79)	54.11 (33.29)
<i>Coord(any)=1</i>						
$\pi$	213.40 (30.67)	216.43 (26.93)	215.54 (24.50)	216.96 (30.21)	206.18 (27.05)	203.87 (28.20)
$\pi_\alpha$	214.20 (29.31)	238.31 (24.62)	218.61 (26.40)	236.03 (35.62)	202.40 (28.32)	216.33 (36.39)
$\pi_\beta$	213.14 (31.16)	209.14 (23.52)	214.52 (23.78)	210.61 (25.20)	207.44 (26.53)	199.71 (23.51)
<i>Coord(Proj<math>_\alpha</math>) = 1</i>						
$\pi$	212.94 (31.44)		215.26 (24.69)	215.49 (28.88)	208.56 (25.71)	202.57 (38.61)
$\pi_\alpha$	214.21 (28.43)		218.14 (25.23)	240.26 (25.98)	214.32 (26.47)	239.68 (40.32)
$\pi_\beta$	212.52 (32.44)		214.30 (24.47)	207.24 (24.84)	206.64 (25.22)	190.21 (29.05)
<i>Coord(Proj<math>_\beta</math>) = 1</i>						
$\pi$	214.52 (28.85)	216.43 (26.93)	216.63 (23.86)	220.51 (32.11)	202.59 (28.65)	204.27 (24.10)
$\pi_\alpha$	214.16 (31.99)	238.31 (24.62)	220.43 (30.93)	237.20 (41.62)	184.38 (20.56)	209.05 (31.93)
$\pi_\beta$	214.64 (27.95)	209.14 (23.52)	215.36 (21.06)	214.95 (26.12)	208.66 (28.45)	202.68 (20.67)
<i>Overall</i>						
$\pi$	131.90 (87.47)	151.68 (85.12)	179.29 (70.13)	175.69 (73.40)	160.56 (69.68)	176.24 (63.68)
$\pi_\alpha$	145.24 (82.05)	177.36 (82.87)	185.88 (67.15)	195.11 (76.26)	180.61 (41.02)	195.63 (57.75)
$\pi_\beta$	127.45 (88.83)	143.11 (84.21)	177.09 (71.02)	169.22 (71.32)	153.87 (75.76)	169.78 (64.29)

Notes. The table reports the mean per-period earnings (with standard deviations in parentheses) across the six treatments. The top panel presents descriptive statistics disaggregated by subject type—star and majority—and further distinguishes between cases in which: (i) the group fails to fund any project, (ii) the group successfully funds the project preferred by  $\alpha$ , or (iii) the group successfully funds one of the projects preferred by the majority. The bottom panel reports the same statistics pooling all groups, regardless of whether a project was funded.

These initial descriptive patterns are corroborated by the parametric results presented in Table 13.

Column (1) shows that introducing sequential contributions significantly increases the average per-period group earnings ( $p = 0.002$ ). In contrast, we do not detect any significant effect of the organized manipulation on per-period group earnings. Column (2) suggests that both sequentiality settings are similarly effective in boosting earnings (for the difference between  $L$  and  $A$ ,  $p = 0.304$ ). These findings offer partial support for H4.a, as they show an increase in aggregate per-period earnings. However, contrary to expectations, we find no substantial effect of the organized manipulation on overall group welfare.

Additional insights emerge from columns (4)–(5) and (7)–(8), which replicate the previous analysis separately for  $\alpha$  and the majority. First, the “organized” manipulation has a significant positive effect on  $\alpha$ ’s



TABLE 13. The determinants of per-period earnings in the six treatments: Parametric results

	$\pi$ (overall)			$\pi_\alpha$			$\pi_\beta$		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
<i>Organized</i>	10.624 (8.383)	10.624 (8.350)		18.791** (8.815)	18.791** (8.816)		7.902 (8.797)	7.902 (8.743)	
<i>Sequential</i>	31.158*** (9.921)			28.007*** (10.340)			32.209*** (9.331)		
<i>L</i>		35.703*** (11.103)			29.197** (11.898)			37.871*** (10.708)	
<i>U</i>		26.614** (10.593)			26.817** (10.848)			26.546** (10.708)	
<i>SO</i>			19.778 (17.669)			32.122* (18.221)			15.663 (15.005)
<i>LU</i>			47.389*** (14.720)			40.644*** (13.990)			49.637*** (15.005)
<i>LO</i>			43.794*** (16.220)			49.872*** (16.620)			41.769*** (15.005)
<i>AU</i>			28.658* (15.042)			35.367*** (12.136)			26.422* (15.005)
<i>AO</i>			44.347*** (14.668)			50.389*** (15.216)			42.333*** (15.005)
<i>Constant</i>	136.474*** (9.765)	136.474*** (9.761)	131.897*** (12.402)	151.905*** (9.453)	151.905*** (9.457)	145.239*** (11.085)	131.331*** (8.797)	131.331*** (8.743)	127.450*** (10.610)
<i>SO – LO</i>			-24.017 (16.360)			-17.750 (19.039)			-26.106 (15.005)
<i>SO – AO</i>			-24.569* (14.823)			-18.267 (17.827)			-26.670* (15.005)
Obs.	1,080	1,080	1,080	1,080	1,080	1,080	3,240	3,240	3,240
Groups	90	90	90	90	90	90	90	90	90
Wald $\chi^2$	11.36	11.77	14.55	11.97	11.96	14.06	12.72	14.00	15.91
$p > \chi^2$	0.003	0.008	0.013	0.003	0.008	0.015	0.002	0.003	0.007

Notes. The first six columns report estimates (robust standard errors in parentheses) from GLS random-effects models. The dependent variable in columns (1)–(3) is the group-level average of per-period earnings. In columns (4)–(6), the dependent variable is the per-period earnings of the star ( $\alpha$ ). The last three columns present coefficient estimates (standard errors in parentheses) from two-way linear random-effects models that account for both individual-level serial correlation and within-group dependence. Here, the dependent variable is the per-period earnings of each majority member ( $A$ ,  $B$ , and  $C$ ). *Organized* is a dummy variable equal to 1 in treatments where the majority is organized around one alternative project, and 0 otherwise. *Sequential* is a dummy variable equal to 1 in treatments with sequential contributions, and 0 otherwise. *L* (*A*) is a dummy equal to 1 when  $\alpha$  contributes first (last), and 0 otherwise. *SO*, *LU*, *LO*, *AU*, and *AO* are treatment dummies. Statistical significance is denoted as follows: \*  $p < 0.1$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ .

earnings ( $p = 0.033$  in both columns 4 and 5), while it has no significant impact on the majority's earnings ( $p = 0.369$  in both columns 7 and 8). Second, sequentiality benefits both  $\alpha$  and the majority (for the coefficient of *Sequential*,  $p = 0.007$  in column 4 and  $p = 0.001$  in column 7). Notably, when focusing on the majority (column 8),  $\alpha$ 's leading contributions yield a larger effect than when  $\alpha$  acts as an anchor (for the difference between *L* and *A* in column 8,  $p = 0.290$ ).

This evidence also challenges the validity of H4.b. First, the two forms of sequentiality have the same positive effect on the earnings of  $\alpha$ . Moreover, confronting a focal alternative increases  $\alpha$ 's earnings, but not those of the majority. As shown in the second part of Table 12, these results imply that  $\alpha$  obtains the highest earnings in the *AO* setting, where she contributes last and the majority faces a focal project. Conversely, and contrary to our initial expectations, the majority earns the most in the *LU* setting, where they contribute after  $\alpha$  and face no focal alternative among the preferred projects.

**Result A7.** *Sequentiality increases earnings for all group members. The organized manipulation has no significant effect on aggregate group earnings, mainly due to its null effect on the majority's earnings. In*

*contrast enhancing focality of one project for the majority benefits  $\alpha$ .  $\alpha$  achieves the highest earnings when she contributes last and the majority has organized preferences on a project. Conversely, the majority's earnings are maximized when  $\alpha$  contributes first and no focal project is present.*

We now turn our attention to the distribution of welfare among group members. In a treatment where agents make decisions simultaneously, preferences and endowments are heterogeneous, and the less advantaged group members do not have a focal project among their preferred alternatives, Corazzini et al. (2024) find that groups tend to coordinate on the project preferred by  $\alpha$ . Moreover, the cost of funding the project is typically shared in a highly progressive manner, with  $\alpha$  voluntarily contributing a disproportionate share, thereby helping to offset the inherent inequality arising from differences in endowments and preferences. In a similar vein, we now focus on how welfare is distributed within groups and examine, in Table 14, how sequentiality and the organized manipulation affect the level of in-group inequality across the six treatments.

TABLE 14. Per-period earnings and in-group welfare inequality: Parametric results

	<i>SU</i>	<i>SO</i>	<i>LU</i>	<i>LO</i>	<i>AU</i>	<i>AO</i>
$\alpha$	26.202*** (7.888)	55.813*** (6.918)	25.182*** (6.853)	22.070** (8.537)	86.846*** (6.431)	82.131*** (7.815)
<i>Proj</i> $_{\alpha}$	174.335*** (3.952)		159.109*** (2.760)	139.642*** (4.198)	158.317*** (2.960)	154.945*** (6.501)
$\alpha \times \text{Proj}_{\alpha}$	-11.918 (7.687)		-19.699*** (5.521)	8.741 (8.149)	-81.034*** (5.814)	-53.242*** (13.001)
<i>Proj</i> $_{\beta}$	175.403*** (5.170)	178.691*** (2.945)	163.552*** (3.938)	154.952*** (4.540)	163.132*** (3.985)	159.567*** (3.089)
$\alpha \times \text{Proj}_{\beta}$	-31.492*** (10.102)	-36.620*** (5.805)	-29.359*** (7.875)	1.984 (8.767)	-118.001*** (7.664)	-76.342*** (6.179)
<i>Constant</i>	44.008*** (5.112)	37.884*** (3.984)	56.180*** (3.427)	69.809*** (5.946)	53.280*** (3.933)	43.889*** (3.908)
<i>Obs.</i>	720	720	720	720	720	720
<i>Groups</i>	15	15	15	15	15	15
<i>Wald <math>\chi^2</math></i>	3580.80	4447.58	4519.88	2083.67	3989.62	3101.43
<i><math>p &gt; \chi^2</math></i>	0.000	0.000	0.000	0.000	0.000	0.000

**Notes.** The table reports coefficient estimates (standard errors in parentheses) from two-way linear random effects models accounting for both potential individual dependency over periods and dependency within the group. The dependent variable is the per-period earnings obtained by the subject in the period.  $\alpha$  is a subject-type dummy. *Proj* $_{\alpha}$  is a dummy that takes a value of 1 if the group successfully funded the project preferred by  $\alpha$ , and 0 otherwise. *Proj* $_{\beta}$  is a dummy that takes a value of 1 if the group successfully funded (one of) the project(s) preferred by the majority, and 0 otherwise.  $\alpha \times \text{Proj}_{\alpha}$  and  $\alpha \times \text{Proj}_{\beta}$  are interaction terms. Statistical significance is denoted as follows: \*  $p < 0.1$ , \*\*  $p < 0.05$ , and \*\*\*  $p < 0.01$ .

The table provides two preliminary results. First, when the group does not manage to reach the threshold of any project,  $\alpha$  always obtains higher earnings than the majority (for the coefficient of  $\alpha$ ,  $p = 0.010$  in *LO*, and  $p < 0.001$  in all other treatments). Second, successfully funding a project makes both the majority (for both *Proj* $_{\alpha}$  and *Proj* $_{\beta}$ ,  $p < 0.01$ ) and  $\alpha$  (for both *Proj* $_{\alpha} + \alpha \times \text{Proj}_{\alpha}$  and *Proj* $_{\beta} + \alpha \times \text{Proj}_{\beta}$ ,  $p < 0.01$ ).

More importantly, conditional on the successful funding of a project, introducing a focal project for the majority generally increases in-group inequality in favor of  $\alpha$ . Specifically, we find no significant differences

in earnings between  $\alpha$  and the majority in *SU*, *LU*, and, when the project preferred by  $\alpha$  is successfully funded, in *AU* (for both  $\alpha + \alpha \times Proj_{\alpha}$  and  $\alpha + \alpha \times Proj_{\beta}$  in *SU* and *LU*, and for  $\alpha + \alpha \times Proj_{\alpha}$  in *AU*, all  $p > 0.1$ ). However,  $\alpha$  earns significantly less than the majority in *AU* when one of the projects preferred by the majority is successfully funded (the linear combination  $\alpha + \alpha \times Proj_{\beta}$  is negative and  $p < 0.001$ ). Conversely,  $\alpha$  earns significantly more than the majority in *SO* when the project preferred by the majority is funded ( $\alpha + \alpha \times Proj_{\beta}$  is positive and  $p = 0.003$ ), in *LO* (with  $\alpha + \alpha \times Proj_{\alpha}$  positive and  $p < 0.001$ ; with  $\alpha + \alpha \times Proj_{\beta}$  positive and  $p = 0.006$ ), and in *AO* when the project preferred by  $\alpha$  is successfully funded (the linear combination  $\alpha + \alpha \times Proj_{\alpha}$  is positive and  $p = 0.016$ ).

**Result A8.** *Introducing a focal project for the majority benefits  $\alpha$  and amplifies in-group inequality in her favor.*