Reward Allocations in Teams: When Decision Autonomy Helps and When it Hurts

Karl Schuhmacher
Goizueta Business School
Emory University
Atlanta, Georgia, USA
karl.schuhmacher@emory.edu

Martin Wiernsperger
Samuel Curtis Johnson Graduate School of Management
SC Johnson College of Business
Cornell University
Ithaca, New York, USA
martin.wiernsperger@cornell.edu

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ABSTRACT

As organizational structures flatten, teams are increasingly granted decision autonomy, often with limited hierarchical oversight. Prior research shows that teams can effectively use subjective peer information to curb free riding and motivate effort when appropriate control mechanisms are in place. It remains unclear, however, whether teams should also be granted autonomy over the choice of those mechanisms. We address this question in an experiment in which teams can choose how to allocate a jointly earned reward. Teams can select either an *even-split mechanism*, which appears fair under a naïve assumption of equal effort but facilitates free riding, or one of two *peer-based mechanisms*—bargaining or impartial sharing—that can discipline free riding by using peer information. We find that both peer-based mechanisms increase effort provision by approximately 50 percent relative to even splits, elevating not only team performance but also individual payoffs and perceived team cohesion. Yet, when given a choice, most teams opt for even splits. As such, we provide evidence that teams select control mechanisms that are ineffective. More broadly, these results reveal a key tension in delegation: while autonomy over the use of peer information can enhance team performance when an effective control mechanism is in place, autonomy over the choice of mechanism may backfire.

Keywords: team reward, mutual monitoring, fairness, cooperation, autonomy, bargaining

JEL Classifications: C92, D23, D86, D90, M40, M52

1. Introduction

Organizations increasingly grant decision-making autonomy to teams, often with minimal hierarchical oversight (e.g., Towry [2003]; Lazear and Shaw [2007]; Upton [2024]). Prior research shows that, when appropriate control mechanisms are in place, teams can effectively use subjective peer information to curb free-riding and promote cooperation (e.g., Fehr and Gächter [2000]; Gächter, Renner, and Sefton [2008]; Rand et al. [2009]). However, as organizational structures flatten and teams gain greater autonomy, it remains unclear whether they should be entrusted with the autonomy to choose the control mechanisms that structure their interactions. We examine this question in the context of reward allocations, where team members create a joint output and must allocate the resulting reward among each other. We compare a simple *even split* mechanism, which facilitates free riding, with two peer-based mechanisms to mitigate this problem: *bargaining* (Baranski and Cox [2023]) and *impartial sharing* (Falvey, Lane, and Luckraz [2025]). The key novelty of our study is that teams can choose their preferred control mechanism, allowing us to examine whether they exercise autonomy over this choice effectively.

This question is particularly important because many contemporary organizations rely on peer-based evaluation and reward systems to govern effort and performance in the absence of close managerial oversight (e.g., Artz, Deller, and Leonelli [2025]; Klapper, Piezunka, and Dahlander [2023]; Silverman and Kwoh [2012]). In self-managing and agile teams, peers increasingly assess one another's contributions and influence outcomes such as bonuses, promotions, or performance ratings (e.g., Di Fiore and Souza [2021]; Magpili and Pazos [2018]). While such systems hinge on the effective use of peer information, they also require clearly defined mechanisms that determine how peer judgments translate into rewards. Granting teams discretion over the choice of these mechanisms is often viewed as empowering and consistent with modern management practices (e.g., Appelo [2015]; Foss and Klein [2023]). Yet, doing so implicitly assumes that teams will select mechanisms that serve their own and the organization's interests. Whether this assumption holds is an open question with direct implications for the design of peer evaluation systems and the broader delegation of control in organizations. In this vein, our study explores the limits of delegating decision authority, in the spirit of the *Theory of the Firm* (Coase [1937]).

We study this question using a bonus pool setting, which mirrors the classic public goods game in that team members contribute effort toward a shared output, and the resulting bonus is then allocated among them (Arnold, Hannan, and Tafkov [2018, 2020]). This setting is ideal to study our research question, as it naturally gives rise to the free-rider problem while also allowing for the use of peer information (i.e., observations of others' effort) to split the bonus. In this setting, absent a hierarchical manager, we examine three allocation mechanisms: *even splits*, *bargaining*, and *impartial sharing*. Prior research examines how these different mechanisms affect cooperation when they are exogenously imposed on teams. Even splits tend to result in a breakdown of cooperation over time (Kim and Walker [1984]; Chaudhuri [2011]), while bargaining (Baranski [2016, 2019]) and impartial sharing (Dong, Falvey, and Luckraz [2019]; Abbink, Dong, and Huang [2022]) lead to high levels of cooperation. What remains unclear is whether teams—when granted autonomy—will choose these efficient mechanisms over a simple even split. In what follows, we briefly describe each mechanism and outline the underlying behavioral dynamics.

First, *even splits* do not make use of peer information and divide bonuses equally among team members regardless of individual effort. While an even split may appear "fair" under the naïve assumption of equal effort, it weakens individual incentives to contribute effort by under-rewarding high contributors and over-rewarding low contributors. As a result, it incentivizes free riding and erodes cooperation. Second, *bargaining* allows team members to negotiate bonus allocations, thereby enabling the use of peer information. In practice, bargaining can take different forms, but it typically requires some form of agreement among a majority. To study bargaining in a structured way, we draw on the well-established Baron and Ferejohn [1987, 1989] model, which formalizes a process of sequential proposals and majority approval. Bargaining can curb free riding if a cooperative majority holds a minority of non-cooperators accountable (Baranski [2019]). Third, *impartial sharing* mutes self-interests by requiring each team member to allocate a share of the team bonus among all other members, excluding themself. This mechanism is theoretically appealing as it reduces self-serving bias, and recent studies show that it is highly effective in motivating effort (Dong, Falvey, and Luckraz [2019]; Grieder and Schuhmacher [2025]).

These insights suggest that both bargaining and impartial sharing outperform even splits in motivating effort contributions to team output. From a normative standpoint, teams would thus be better off adopting either of the two peer-based control mechanisms rather than choosing even splits. However, we rely on behavioral arguments and hypothesize that many individuals—and by extension, teams—will prefer even splits over more efficient peer-based mechanisms, thereby undermining their own material interests. Specifically, we theorize that even splits appeal to many individuals because they naively assume equal effort contributions, under which an even split appears simple and fair. Because most people behave cooperatively—at least conditionally—they fail to anticipate how a small minority of non-cooperative team members can exploit an even split to free-ride. Although such free riders are a minority, their behavior can quickly undermine cooperation by discouraging conditionally cooperative team members and triggering a cascade of declining contributions, a dynamic that most individuals fail to anticipate ex ante. Moreover, we argue that the very feature that makes impartial sharing theoretically appealing—impartiality, or the exclusion of self-interest—also makes it behaviorally unappealing when individuals have autonomy over choosing a control mechanism. Specifically, we contend that removing self-interest from the decision process is experienced as a loss of control over one's own rewards. In contrast, bargaining preserves self-interest and allows individuals to influence outcomes in their own favor, maintaining a stronger perception of control. Thus, we hypothesize that even split will be even less popular when the alternative is impartial sharing than when it is bargaining.

To test our predictions, we conduct a laboratory experiment in which 405 participants are randomly assigned to fixed three-person teams and decide how much costly effort to contribute to team output, which determines the size of the team bonus. Contributions are mutually observable but not contractible, enabling peer monitoring without formal enforcement. The team bonus is allocated using one of three mechanisms: *even split*, *bargaining*, or *impartial sharing*. To systematically vary both the mechanism and how it is selected, we employ a 2 × 2 × 2 nested experimental design. The first factor is whether the mechanism is chosen by the team via majority vote (*endogenous*) or externally imposed through a random draw (*exogenous*). Within each condition, teams face a binary choice set, either even split versus bargaining or even split versus impartial sharing. The third factor captures which mechanism is ultimately implemented for the reward allocation in each team. After teams use the chosen or assigned mechanism for eight periods, we again elicit their preferences over the allocation mechanisms.

As predicted, we find substantial performance differences across control mechanisms. Both bargaining and impartial sharing increase effort provision relative to even splits, yielding average team output gains of about 50 percent and exceeding 100 percent in later periods. Yet, when given the choice, most teams opt for even splits, thereby enabling free riding and undermining their own material interests. Specifically, 55 percent of teams choose an even split over bargaining, and an even larger 78 percent choose an even split over impartial sharing. After experiencing the implemented mechanism for eight periods, roughly half of teams continue to prefer even splits over more efficient peer-based alternatives. Notably, among teams that experienced bargaining, preferences for even splits increase, whereas among teams that experienced impartial sharing, preferences for even splits decline. Beyond material outcomes, questionnaire responses indicate that peer-based control mechanisms also generate immaterial benefits. Relative to even splits, both bargaining and impartial sharing are associated with higher perceived team cohesion, including greater team enjoyment, identification, commitment, and trust. Taken together, these findings highlight a key tension: autonomy *within* a control mechanism—such as using peer information to allocate rewards—can improve team performance, but granting autonomy *over* the choice of control mechanism may backfire as teams often fail to select what is in their own best interest.

Our findings contribute to several strands of literature. First, we extend the accounting literature on bonus pools and the use of peer information (e.g., Baiman and Rajan [1995]; Ederhof, Rajan, and Reichelstein [2011]; Rajan and Reichelstein [2006]). Recent work in this area has examined how managers can use peer information to allocate bonuses among employees (e.g., Arnold, Hannan, and Tafkov [2018, 2020]; Arnold and Tafkov [2019]; Abernethy, Hung, and van Lent [2020]; Grieder and Schuhmacher [2025]; Chan, Feinberg, and Wiernsperger [2025]). We build on this work by (i) comparing the effectiveness and popularity of alternative peer-based mechanisms that firms might employ when delegating bonus decisions to teams and (ii) by investigating whether teams should be granted autonomy to select the very mechanisms that govern their interactions. In doing so, we address recent calls for more research on how firms can design and delegate control rights in team settings (Fehrler and Janas [2021]). Second, we contribute to the emerging literature on peer evaluations by showing how the structure and choice of peer-based control mechanisms shape effort, performance, and team dynamics (e.g., Knauer, Marsula, and Winkelmann [2025]; Speckbacher and Wiernsperger [2025]; Khajehnejad and Linder [2022]). Thereby, we also contribute to the broader managerial accounting literature on how controls shape fairness and cooperation (e.g., Cardinaels and Yin [2015]; Colletti, Sedatole, and Towry [2005]; Maas and van Rinsum [2013]; Tayler and Bloomfield [2011]).

Finally, our study can help explain the anecdotal observation that even splits are surprisingly common in practice, despite the risk of free riding and the associated inefficiencies (e.g., Bartling and von Siemens [2010]; Farrell and Scotchmer [1988]; Hellmann and Wasserman [2017]). A familiar example arises in school or university group projects, where teams typically choose that all members should receive the same grade (i.e., an even split), even though free riding is a common problem. Our findings suggest that this choice reflects a naïve assumption that most team members will contribute equally, under which an even split appears to be a simple and fair allocation rule and peer-based control mechanisms seem unnecessary. Notably, even direct experience with free riding appears to do little to overturn this choice.

2. Analytical Framework

2.1 SETTING

The free-rider problem is omnipresent in organizations. At its core, free riding is a measurement problem. While overall team performance can usually be measured with ease, it is more difficult to objectively capture individual contributions in teams. Therefore, team members often receive similar recognition for overall team performance, creating incentives for them to reduce their contributions to team output and, thus, free ride on the efforts of others.

To illustrate the free-rider problem, we follow prior research and design a two-stage setting, capturing a team consisting of $n > 2$ members. In this setting, team members can contribute effort toward a common objective (i.e., contribution stage), which generates a team bonus that must be allocated among them (i.e., allocation stage). Incentives for free riding arise, when low [high] contributors are allocated larger [smaller] bonuses than justified. Thus, free riding can be mitigated by control mechanisms that produce *fairer* bonus allocations (i.e., bonuses that better reflect team members' relative contributions to the team output). We describe the two stages below.

In the *contribution stage*, each team member *i* has an endowment, $E > 0$. Team members can use their endowments to independently contribute costly effort, e_i, to team output. As such, effort contributions are subject to the following restriction: $0 \leq e_i \leq E$, where the cost of effort is $c_i = e_i$ and $c_i'(e_i) = 1$. All effort contributions are added and multiplied by the productivity factor $M \geq 1$ to form team output, which for simplicity (but without loss of generality) represents both team performance and the team bonus $B = M \sum_i(e_i)$. That is, $M e_i$ captures both team member i's individual performance and the portion of the overall team bonus generated by i.[1] After all team members submitted their effort contributions, they observe team performance and the team bonus. Moreover, they observe each other's effort contributions, e_i, and individual performances, $M e_i$. In other words, they receive mutual monitoring information, a standard assumption.[2]

In the *allocation stage*, the team bonus is allocated through one of three mechanisms: *even split*, *bargaining*, or *impartial sharing*. All three mechanism generate a final allocation with a bonus, $b_i \geq 0$, for each team member i, such that the team bonus, B, is allocated among all members without residual, $\sum_i(b_i) = B$. Thus, each team member has earnings of $\pi_i = E - e_i + b_i$.

In a pre-game stage preceding the eight incentivized periods, one of the three mechanisms is selected to determine how the team bonus is allocated among members. Teams are randomly assigned to one of two treatment arms: *bargaining* vs. *even split* or *impartial sharing* vs. *even split*. Within each treatment arm, the mechanism is either *endogenously* chosen by the team via majority vote or *exogenously* imposed through a random draw. Once determined, the selected mechanism remains fixed for all eight periods. In the following sections, we describe each mechanism in detail and present theoretical predictions based on the assumption that team members are selfish and risk neutral. These predictions help illustrate the monetary incentives embedded in each mechanism.

[1] Abstracting away from noise in the relationship between effort and performance allows us to focus on the critical forces underlying our theory, thereby ensuring optimal experimental control.
[2] Mutual monitoring is a standard assumption in various literatures, including the public goods game literature (e.g., Eichenseer [2023], Fiala and Suetens [2017]), the team production literature (e.g., Alonso and Matouschek [2008], Che and Yoo [2001], Kvaløy and Olsen [2006]), and the bonus pool literature.

2.2 BONUS ALLOCATION VIA EVEN SPLIT

The standard mechanism to divide a bonus among team members is a simple even split. Under an even-split allocation, each team member i receives the same bonus, $b_i = B / n$, such that the game reduces to a classic public good game. The dominant-strategy equilibrium prediction is that team members will contribute effort if the marginal benefit of contributing effort, $b_i'(e_i) = M / n$, weakly exceeds its marginal cost, $c_i'(e_i) = 1$. Therefore, all team members will contribute full effort (i.e., $e_i = E$), if $M \geq n$, and no team member will contribute any effort (i.e., $e_i = 0$), if $M < n$. Importantly, the marginal benefit of effort, $b_i'(e_i) = M / n$, is constant. This marginal benefit is typically described as the marginal per capita return (MPCR) of each unit of effort contributed. Research on repeated public good games with even split allocations has provided evidence that, while many individuals initially contribute to the public good, they reduce their contributions over time as they observe free riders, such that average contributions decline (Andreoni [1988], Chaudhuri [2011], Isaac and Walker [1988], Kim and Walker [1984]). Fischbacher, Gächter, and Fehr [2001] label this behavior *conditional cooperation*.

2.3 BONUS ALLOCATION VIA BARGAINING

The most common approach to systematically study bargaining is the Baron and Ferejohn [1987, 1989] mechanism. One team member k is randomly chosen with probability $q = 1/n$ to propose an allocation of the team bonus, where p_i describes the proposed bonus for each team member i (with $p_i \geq 0$ and $\sum_i(p_i) = B$). This proposal is put up for a vote among all n team members. If a majority of members—at least $(n+1)/2$—accepts the proposal, the bonus is allocated as proposed. If the proposal is rejected, a member j is randomly chosen with probability $q = 1/n$ to propose an allocation that must satisfy the same criteria as the first proposal. Again, the proposal is put up for vote and, if accepted by a majority, the bonus is allocated as proposed. This process is repeated until a proposal is accepted by a majority of team members. In theory, the process can continue indefinitely if a majority of team members repeatedly reject the proposed allocation.

Baron and Ferejohn [1987, 1989] and Baranski [2016] outline equilibrium predictions Specifically, subgame perfect equilibria have the following three features. First, proposals seek a minimum winning coalition in that the proposing team member offers a bonus of at least B/n to $(n - 1)/2$ members given n is uneven—respectively to $n/2$ members given n is even—to secure a majority. Second, the proposer receives the largest bonus share, as they allocate to themself what remains of the team bonus after securing a minimum winning coalition. Third, the first proposal is accepted. In expectation, all members receive a bonus of B/n, such that the bonus allocation is identical to that of the public good game. Hence, each team member will contribute full effort (i.e., $e_i = E$), if $M \geq n$, and no team member will contribute any effort (i.e., $e_i = 0$), if $M < n$.

Baron and Ferejohn [1987, 1989] model bargaining over an exogenously given amount and therefore focus exclusively on the allocation stage. In contrast, only a small number of studies combine a contribution stage with a subsequent bargaining-based allocation stage. One such study is Baranski [2016], who finds that participants contribute 70–75% of their endowment to team output. In a follow-up study, Baranski [2019] introduces a cap on the number of bargaining rounds and observes slightly higher contributions of 75–80%. Baranski and Cox [2023] report lower contribution levels of around 60%, which they attribute to the threat of bonus loss after multiple failed bargaining rounds. Notably, they find that allowing communication among team members does not increase effort provision. This laboratory evidence is complemented by field studies, such as van Dolder et al. [2015], who analyze bargaining among quiz show contestants, and Pierce, Wang, and Zhang [2021], who study bargaining among workers in Chinese beauty salons.

2.4 BONUS ALLOCATION VIA IMPARTIAL SHARING

Third, we examine *impartial sharing*, which prior research suggests can reduce self-serving bias and enhance team productivity. The earliest known description of this mechanism dates back to John Kenneth Galbraith, who documented a bonus-sharing scheme used by National City Bank (now Citibank) in the U.S. during the 1920s. The concept was later formalized by De Clippel, Moulin, and Tideman [2008] under the label "impartial division of a dollar." The key feature of this mechanism is that each team member proposes a self-excluding allocation of the entire team bonus. That is, each team member k allocates the entire team bonus B among all other members, excluding themself, where $b_{i,k} \geq 0$ describes the bonus that is allocated to member i by k (with $b_{k,k} = 0$ and $\sum_i (b_{i,k}) = B$). Each team member i's final bonus is derived as $b_i = \sum_k (b_{i,k})/n$. Notably, this mechanism is equivalent to asking each member to allocate $1/n$ of the team bonus among all other members and deriving the final bonus of each member i as the sum of all bonuses allocated to i.

Dong, Falvey, and Luckraz [2019] analyze this mechanism and show that self-exclusion ensures monetary impartiality. Thus, any allocation is a dominant-strategy equilibrium. If members divide their shares equally, the final outcome replicates an even split, yielding the same effort predictions as in the public good game. If members are purely selfish, random allocations again converge to an even split in expectation. One drawback, however, is that even when members allocate shares perfectly proportional to observed contributions, the resulting bonus distribution is not entirely fair: high contributors are partially under-rewarded and low contributors over-rewarded, leaving some room for free riding.[3] However, a proportional allocation of shares establishes transitivity in that team members' bonuses increase with their contributions. Assuming all team members allocate their shares proportional to contributions, everyone will contribute full effort (i.e., $e_i = E$), if $M \geq n/(n+1)$, respectively a zero-effort equilibrium (i.e., $e_i = 0$) will be sustained, if $M < n/(n+1)$. Therefore, the efficiency loss that arises with proportional allocations can be described as $n/(n+1)$ and decreases with a growing number of members n in a team.

[3] For example, if a team member contributes effort and all others contribute no effort, the final bonus allocation is not proportional, because the contributing member must allocate $1/n$ of the bonus among the non-contributing members.

Several empirical studies examine the effects of impartial sharing on effort provision. Dong, Falvey, and Luckraz [2019] find contributions of about 60% and 80% of the endowment under low ($M = 1.2$) and high productivity ($M = 1.8$), respectively. Dong and Huang [2018] report even higher contributions of 87% in a similar setup. Abbink, Dong, and Huang [2022] find that participants designated as "partners" who remain in fixed teams contribute more effort (75%) than "loners" who are rematched each period (50%). Similarly, Grieder and Schuhmacher [2025] observe average contributions of 69% of the endowment. Yang et al. [2018] demonstrate that impartial sharing sustains high levels of contributions and reverses the usual downward trend observed in public good games by harnessing conditional-cooperation dynamics. Falvey, Lane, and Luckraz [2025] generalize the impartial sharing mechanism to heterogeneous endowments and show that it both raises average contributions and reduces income inequality.

3. Hypotheses Development

Building on the analytical framework in Section 2, we first state two hypotheses that replicate prior findings on the effectiveness of bargaining and impartial sharing in motivating team members' effort provision relative to an even split. We then turn to our main focus: team members' choices over control mechanisms. Our core argument is that, despite the inefficiencies associated with even splits, team members will nonetheless choose to allocate rewards evenly, thereby forgoing opportunities to discipline free riding. As a result, delegating the choice of control mechanism to teams may undermine, rather than enhance, team productivity.

3.1 EFFORT UNDER EVEN SPLIT, BARGAINING, AND IMPARTIAL SHARING

Consistent with prior studies, we predict that both bargaining and impartial sharing will induce higher effort provision by team members than an even split of the team bonus. As described in Section 2, an *even split* ignores peer performance information and allocates bonuses equally among team members regardless of individual effort. While such an allocation may appear "fair" under the naïve assumption of equal effort, it weakens individual incentives by under-rewarding high contributors and over-rewarding low contributors. This incentive structure encourages free riding and, in repeated interactions, leads to a rapid erosion of cooperation.

In contrast, peer-based control mechanisms can mitigate these problems by allowing team members to hold one another accountable. Bargaining does so through majority voting over proposed allocations, while impartial sharing relies on self-excluding bonus allocations that reduce self-serving distortions. Prior evidence shows that both mechanisms substantially increase effort provision relative to even splits. Studies of bargaining report average effort levels between 60% and 80% of the endowment (Baranski [2016, 2019]; Baranski and Cox [2023]), while studies of impartial sharing report effort levels ranging from approximately 60% to 90% (Dong and Huang [2018]; Abbink, Dong, and Huang [2022]; Grieder and Schuhmacher [2025]).

Taken together, these prior findings suggest that both bargaining and impartial sharing outperform even splits in motivating effort contributions to team output. As a first step, we therefore want to replicate these established results and state the following hypothesis:

RH1a: *Allocating the team reward through bargaining will lead to greater effort provision by team members compared to an even split.*

RH1b: *Allocating the team reward through impartial sharing will lead to greater effort provision by team members compared to an even split.*

3.2 TEAM MEMBERS' CHOICE OVER ALLOCATION MECHANISMS

Given our replication hypothesis, which predicts that both bargaining and impartial sharing lead to higher effort provision—and thus greater team productivity—than an even split, a purely normative perspective suggests that team members should choose the peer-based mechanisms over an even split. By allowing earnings to be conditioned on observed contributions, these mechanisms discourage free riding while preserving flexibility: when all members cooperate, teams can still implement an equal division of the bonus, but they retain the option to discipline low contributors if necessary. As such, choosing an even split ex ante—thereby ceding the ability to discipline free riding—is inefficient and difficult to reconcile with the objective of maximizing team output and individual earnings. Nevertheless, we argue that behavioral forces lead a substantial share of teams to choose even splits. We next develop two behavioral arguments to explain this choice.

First, even splits may appear "fair" at face value. While such perceptions can be attributed to egalitarian preferences, they may also stem from equity-based reasoning—provided individuals mistakenly assume that all team members will contribute equally. Under this naïve assumption, both egalitarian and equity-minded individuals would endorse an even split. Since most people behave cooperatively—at least conditionally—many fail to anticipate how a small minority of non-cooperative team members might exploit an even-split structure. Evidence from public goods studies shows that roughly 10 percent of individuals are unconditional cooperators who contribute effort regardless of others' behavior, around 50 to 60 percent are conditional cooperators who contribute only if others contribute too, and about 20 percent are free riders who withhold effort entirely (Fischbacher and Gächter [2010]; Chaudhuri [2011]). Although free riders are a minority, their presence can destabilize cooperation: conditional cooperators quickly become discouraged when they observe freeriding, leading to a cascade of declining effort contributions. Because most individuals fail to anticipate this dynamic, they choose even splits ex ante, viewing them as "fair" despite the incentive problems they introduce. Moreover, when teams experience good outcomes under an even-split arrangement, they may mistakenly attribute the success to the fairness of the split—overlooking its role in weakening effort incentives and enabling free-riding. Together, these factors contribute to widespread support for even splits, not because individuals ignore incentives, but because they underestimate the severity of the free-riding problem.

Second, even splits offer a clear and predictable rule that eliminates uncertainty about how the team's bonus—regardless of its size—is divided among members. The allocation is fixed ex ante and does not depend on the behavior of others. In public goods terms, the marginal rate of return for each unit of effort contributed (i.e., the marginal per capita return, or MPCR) is known in advance and unaffected by strategic interactions. By contrast, under mechanisms like bargaining or impartial sharing, the return on one's contribution is uncertain and contingent on behavior of others. These mechanisms create scope for team members to influence bonus allocations, potentially leading to perceptions of arbitrariness or vulnerability to others' discretion. Because even splits are purely rule-based, they shield individuals from subjective or potentially self-serving decisions by peers. They also reduce the risk of strategic manipulation, interpersonal conflict, or collusion that more complex peer-based mechanisms may invite. Notably, both bargaining and impartial sharing have desirable features in theory and practice: bargaining enables the majority to override a minority of non-cooperative individuals, and impartial sharing removes self-interest from allocation decisions, often prompting even non-cooperative individuals to act fairly. Still, the procedural uncertainty inherent in these mechanisms may cause some individuals to favor the predictability of an even split—even when it comes at the cost of efficiency.

Taken together, these two factors lead us to predict that many team members—and, by extension, teams—will choose an even split, even though the peer-based alternatives of bargaining and impartial sharing generate higher team output and, consequently, higher individual earnings. A naïve perception that even splits are "fair," rooted in a failure to anticipate the cascading effects of free riding, combined with the appeal of procedural clarity and reduced uncertainty, renders the even split a seemingly attractive option. We formalize this prediction in Hypothesis 1:

H1a: *A significant proportion of team members will choose an even split of the team reward over bargaining.*

H1b: *A significant proportion of team members will choose an even split of the team reward over impartial sharing.*

Although we expect many team members to choose even splits over both peer-based mechanisms, we also anticipate systematic differences in the extent of this choice depending on the alternative. Specifically, we predict that an even larger proportion of team members will choose an even split when the alternative is impartial sharing rather than bargaining. In other words, we expect that the effect in H1b will be stronger than in H1a. The behavioral reasoning underlying this prediction centers on differences in perceived agency and self-interest across the two mechanisms. Bargaining allows individuals to advance their own interests by proposing and voting on bonus allocations, thereby preserving procedural voice and a sense of control. Impartial sharing, by contrast, eliminates self-interest by design: team members must allocate the entire bonus among others, relinquishing any direct influence over their own bonus shares.

This difference in perceived agency shapes how each control mechanism is experienced psychologically and socially. Bargaining offers procedural voice and a sense of involvement, both of which are associated with greater perceived fairness and acceptance of outcomes (Thibaut and Walker [1975]; Brockner and Wiesenfeld [1996]; Dal Bó, Foster, and Putterman [2010]; Sutter, Haigner, and Kocher [2010]). Team members can vote on proposals and, when selected as proposers, even actively shape the outcome. Although bargaining introduces greater strategic risks—such as self-serving behavior or coalition formation—these risks may be tolerated because the process preserves a sense of control and involvement. By contrast, impartial sharing constrains individual agency. Its key strength—removing self-interest from the bonus allocation process—may also be its defining weakness in the eyes of team members. Because they cannot influence their own bonus share, impartial sharing may be perceived as disempowering.

Taken together, these considerations suggest that team members—and, by extension, teams—are especially likely to choose an even split when the alternative is impartial sharing rather than bargaining. We formalize this prediction in Hypothesis 2:

H2: *A larger proportion of team members will choose an even split of the team reward when the alternative is impartial sharing than when it is bargaining.*

3.3 PLANNED EXPLORATORY ANALYSES

There are two outcomes for which we do not make formal predictions. First, we remain agnostic about whether bargaining or impartial sharing will elicit higher effort provision. Bargaining grants team members direct control over the allocation of the team bonus and allows self-interest to shape proposals—agency that could motivate effort provision. At the same time, this discretion may foster self-serving allocations that undermine cooperation. Impartial sharing eliminates such self-serving distortions by design, but in doing so also removes individual agency, which may attenuate effort provision. Because no prior empirical study directly compares these two mechanisms, their relative effectiveness in motivating effort remains an open question.

Second, we do not expect differences in effort provision between teams that endogenously choose a control mechanism and those to whom the mechanism is exogenously assigned. Our theoretical reasoning for why *bargaining* and *impartial sharing* elicit higher effort than *even splits* is rooted in the intrinsic design features of the mechanisms themselves. Both are structured to reduce free riding and promote cooperation by allowing team member to tie payoffs to effort and enabling mutual accountability. If these features are the primary drivers of behavior—as our theory suggests—then the motivational effects should hold regardless of whether the mechanism is adopted voluntarily or imposed by an external authority. However, if selection effects are present, effort provision may depend on whether the mechanism is chosen or assigned. Less cooperative teams may opt for an even split to avoid accountability, resulting in lower effort than under an exogenously imposed even split. Conversely, more cooperative teams may self-select into bargaining and impartial sharing, resulting in greater effectiveness when endogenously chosen.

4. Method

4.1 TEAM SETTING AND PARAMETERS

To test our hypotheses, we conduct an interactive laboratory experiment that follows the methods and traditions of experimental economics.[4] We assign participants to teams of $n = 3$ members who remain grouped together for all eight periods.[5] We opt against re-matching and instead establish the team as independent unit of analysis, a common choice in prior research on teams (Arnold, Hannan, and Tafkov [2018, 2020], Karakostas et al. [2023], Towry [2003]). Each team was isolated from all other teams, and no information or outcomes were shared across teams. During the experiment, all interactions took place through the anonymous computer interface programmed in Lioness Lab (Giamattei et al. [2020]).

In the first stage of a given period (i.e., the *contribution stage*), each team member receives an endowment of $E = 40$ points, and each point is worth \$0.05. All team members independently choose an abstract level of costly effort, $0 \leq e_i \leq 40$, which must be an even number to avoid issues with rounding later in the experiment (i.e., 0, 2, 4, 6, …, 40). Effort contributions are multiplied with the productivity factor $M = 1.5$ and added to team output, which also represents the team bonus $B = 1.5 \sum_i(e_i)$, such that every unit of effort increases the total team bonus B by 1.5 points. Our choice of the productivity factor $M = 1.5$ lies within the range of factors used in prior studies that investigate bonus allocations in teams (e.g., Dong et al. [2019]; Baranski and Cox [2023]). After choosing their own effort contribution, all team members observe each other's effort contributions and performance (i.e., 1.5 × effort) as well as the total team bonus.

In the second stage of a given period (i.e., the *allocation stage*), the distribution of the team bonus is organized by one of three mechanism: *even split*, *bargaining*, or *impartial sharing*.

[4] Our study was reviewed and approved by the university's Institutional Review Board (IRB).

[5] We choose the smallest possible team size n, allowing us to collect a sufficient amount of data with a reasonable amount of money. The choice of n lies within the range of team sizes in prior studies (see section 2).

Irrespective of the mechanism, the bonus allocation must fulfill two requirements. First, individual bonuses must be non-negative, $b_i \geq 0$. Second, the sum of all three individual bonuses must equal the team bonus, $\sum_i (b_i) = B$. For simplicity, we also require that each individual bonus is an integer. In any given period, each team member i earns $\pi_i = 40 - e_i + b_i$.

We designed the setting to provide a conservative test of our theory in the sense that, if anything, it should render even split comparatively unattractive relative to peer-based alternatives. First, the production function is linear and additively separable: each member's effort increases the team bonus by a constant marginal return, independent of other's effort. This standard design simplifies coordination relative to interdependent production functions (e.g., weakest-link or best-shot tasks), where coordination failures are more likely and even splits tend to perform better.[6] Second, team members are homogeneous in productivity, with each member's effort multiplied by the same factor. Introducing heterogeneous productivity multipliers would increase coordination demands and create fairness frictions, which would again favor even splits. Third, we prohibit communication among members. Allowing communication could facilitate collusion (e.g., two members could agree to exclude a third from the bonus allocation), which would again strengthen the appeal of even splits. Fourth, participants are randomly assigned to teams rather than self-selecting into them. Endogenous team formation would allow sorting into more cooperative teams, reducing the need for peer-based control and again making even splits more viable. Fifth, effort is perfectly observable among team members. In settings with noisy peer information, evenly splitting the team bonus may become a pragmatic response to measurement uncertainty.

In sum, these design choices create a setting in which peer-based mechanisms should be

[6] For example, Arnold and Tafkov [2019] show that in interdependent team tasks, evenly splitting a team bonus induces higher effort than granting a manager discretion over the bonus allocation, whereas in additive team tasks even splits lead to less team member effort than discretionary bonus allocations by a manager.

particularly effective at mitigating free riding and, from a normative perspective, should therefore appear attractive for teams to adopt. Consequently, our design constitutes a conservative test of our theory as we rule out alternative explanations for the use of even splits that stem from task interdependence, team heterogeneity, collusion, assortative matching, or imperfect observability.

4.2 EXPERIMENTAL DESIGN

We implement a 2 × 2 × 2 nested experimental design. The first factor that we manipulate is whether the decision of which bonus allocation mechanism to use is delegated to the team (*endogenous choice*) or externally imposed (*exogenous choice*). Within each choice condition, we manipulate the set of available mechanisms. In the *bargaining arm*, teams face a choice between using an *even split* or *bargaining*. In the *impartial sharing arm*, teams face a choice between using an *even split* or *impartial sharing*. The third factor reflects which mechanism is ultimately chosen. In total, this yields eight conditions: even split (instead of bargaining), even split (instead of impartial sharing), bargaining, and impartial sharing, each under either endogenous or exogenous choice. Participants are never informed about the counterfactual. Those in the endogenous choice condition are unaware that other teams do not have a choice, and vice versa. Likewise, participants in the bargaining arm are not informed about the existence of impartial sharing, and vice versa.

In terms of implementation, the experiment begins with two non-incentivized practice periods in which participants familiarize themselves with the two bonus allocation mechanisms available in their treatment arm (i.e., either even split and bargaining, or even split and impartial sharing). After these practice periods, one mechanism is selected for use in the subsequent eight incentivized periods. In the *exogenous choice* condition, the mechanism is imposed externally: participants are informed that a computer algorithm randomly selects one of the two mechanisms with equal probability, which is then implemented for all eight incentivized periods. In the *endogenous choice* condition, teams have autonomy to select the allocation mechanism.

Specifically, each team member selects their preferred mechanism, and the mechanism supported by a majority of team members (i.e., at least two out of three) is subsequently implemented. To elicit participants' reasoning, we require them to briefly justify their choice in writing, and we later analyze these responses to gain insights into their underlying preference.

Once implemented, the team uses the same mechanism for all eight periods. This allows us to examine the effects of each mechanism over repeated interactions in a clean and interpretable manner, as allowing teams to switch between mechanisms across periods would complicate the attribution of observed behavior to a given mechanism. That said, after completion of the eight periods, we again ask them to choose an allocation mechanisms. Specifically, we ask (1) which mechanism they would like to use if they were to work with the same team again and (2) which mechanism they would like to use if they were placed in a new team. These responses allow us to examine whether choices for or against even splits evolve with experience.

4.3 PARTICIPANTS AND PROCEDURES

The experiment was conducted in the behavioral laboratory of a private university in the United States. Participants were drawn from the laboratory's subject pool, which consists primarily of undergraduate business-school students. We initially recruited 408 individuals. However, a technical error prevented one three-person team from completing the session. The final sample therefore comprises 405 participants, arranged into 135 three-member teams. The average participant is 20 years old, 57% identify as male, and 85% report English as their first language.

Upon entry to the laboratory, participants were assigned to a computer terminal. All instructions were provided on the computer screens. Participants were randomly assigned to a team, and received a role of either Person A, B, or C. Team members kept their roles and remained in their teams for the entire duration of the experiment. Throughout the instructions, we included comprehensions checks that participants had to correctly answer before they could proceed with the study. Participants were allowed to ask clarification questions that experimenters who administered the sessions answered privately. The instructions use neutral terminology, such as *group*, *group member*, *contribution*, *endowment*, *group output*, and *earnings*. Participants earn a show-up fee of $5, and variable pay ranging from $0 to $72, given each point is worth $0.05. On average, participants earned $25. Each session lasted between 60 and 75 minutes.

5. Results

5.1 EFFORT PROVISION

Table 1 reports descriptive statistics on team members' average effort provision for each reward allocation mechanism, separately for endogenously chosen and exogenously assigned mechanisms, as well as pooled across both conditions. In the *bargaining arm*, average effort was 17.63 points (44% of the maximum) under *even split* and 25.78 points (64% of the maximum) under *bargaining*. Thus, relative to an even split, bargaining increased effort by 8.15 points, corresponding to a 46% efficiency gain. In the *impartial sharing arm*, average effort was 18.33 points (46% of the maximum) under *even split* and 28.13 points (70% of the maximum) under *impartial sharing*, an increase of 9.80 points and a 53% efficiency gain. These patterns are similar when comparing endogenous and exogenous conditions separately (details follow).

Figure 1 shows how effort provision evolved over time, both when pooled across choice conditions (Panel A) and separately by mechanism and choice condition for each arm (Panels B and C). Figure 2 displays period-by-period histograms of effort provision for each mechanism. The time trend reveals that effort levels were relatively similar across mechanisms in the first period: 22.73 points under *bargaining*, 23.21 under *even split* in the bargaining arm, 25.48 under *impartial sharing*, and 23.01 under *even split* in the impartial sharing arm. However, with repeated interactions, differences between peer-based mechanisms and even splits grow substantially. In the final period, effort under *bargaining* was 24.34 points, compared to 13.28 points under the corresponding *even split* condition. Under *impartial sharing*, effort reached 28.28 points in the final period, whereas effort under the corresponding *even split* fell to 12.41 points. This means that by the end of the study bargaining produced 83% higher effort than even split, and impartial sharing produced 128% higher effort. These represent sizeable differences in team productivity.

In Table 2, we formally test our replication hypothesis predicting that bargaining increases effort provision relative to an even split (RH1a) and that impartial sharing increases effort provision relative to an even split (RH1b). To do so, we estimate a series of OLS regressions of effort provision on indicator variables for the experimental treatments. All specifications report robust standard errors clustered at the team level, and all hypothesis tests are two-tailed.

Column (1) presents a parsimonious model using *even split (bargaining)* as the reference category (i.e., the constant in the regression). The coefficients for *bargaining* and *impartial sharing* are both positive and significant. Specifically, participants exerted 8.148 points more effort under *bargaining* relative to *even split* ($p = 0.002$), consistent with replication hypothesis 1a. Similarly, participants contributed 9.801 points more under *impartial sharing* than *even split* ($p < 0.001$), consistent with replication hypothesis 1b. The coefficient on even split in the impartial sharing arm is small and statistically insignificant (0.702, $p = 0.756$), indicating no difference between the two even split conditions.[7] A Wald t-test comparing the effects of bargaining and impartial sharing also yields no statistically significant difference ($t = 1.653$, $p = 0.615$).

Column (2) introduces a dummy variable for *exogenous* choice, along with its interactions with the allocation mechanisms. None of the interaction terms are significant indicating that the method of mechanism selection—whether endogenously chosen by the team or exogenously

[7] In untabulated analyses, we also compare impartial sharing with the corresponding even split condition within the impartial sharing arm. Given the similarity of both even split conditions, the results of this comparison yield the same conclusion: team members contributed 9.100 points more under impartial sharing ($p = 0.013$).

imposed—did not affect effort provision. These results are consistent with our expectation that the differences in effort provision are driven by the mechanism itself and not by selection effects.

Column (3) adds a time trend by including a dummy for period and its interactions with each mechanism. The coefficient for period is negative and significant (−1.372, $p < 0.001$), indicating that effort declines over time when the team bonus is divided equally. In contrast, the interaction terms for period and the two peer-based mechanisms are positive and significant: 1.489 for *bargaining* ($p = 0.002$) and 1.949 for *impartial sharing* ($p < 0.001$). These results confirm the pattern observed in Figure 1: while effort under even splits deteriorates over time, effort under bargaining and impartial sharing remains high, thereby widening the performance gap over time. In this specification, the main effects of *bargaining* and *impartial sharing* are no longer significant, which aligns with our descriptive evidence that effort levels across mechanisms were initially similar. Column (4) presents a fully specified model that includes all treatment indicators and interaction terms. The results remain consistent with the previous specifications.

Taken together, these findings support our replication hypothesis. Both bargaining and impartial sharing lead to higher effort provision than even splits. However, there is no significant difference in effort levels between the two peer-based mechanisms. Most importantly, whether the mechanism was endogenously chosen or exogenously assigned has no discernible effect on effort provision once the mechanism is implemented. This shows that the control mechanism itself causes the differences in effort provision and not selection effects. Finally, we observe that effort under even splits declines over time, consistent with rising free riding, whereas both bargaining and impartial sharing sustain high effort levels. These results confirm our expectation that peer-based control mechanisms can be effective in promoting cooperation and enhancing team output.

5.2 TEAM MEMBERS' CHOICE OF MECHANISM (PRE-TASK)

The findings in Section 5.1 show that both bargaining and impartial sharing substantially increase effort provision—and therefore team output—relative to an even split. On average, these peer-based control mechanisms generate efficiency gains of roughly 50%, and in later periods the advantage can exceed 100%. From a strictly rational perspective, team members should therefore prefer these mechanisms, as they enhance team productivity and, ultimately, individual payoffs. Nevertheless, in Hypothesis 1 we predict that a significant proportion of team members will choose an even split over bargaining (H1a) and over impartial sharing (H1b). In Hypothesis 2, we propose that the tendency to choose an even split will be even more pronounced when the alternative is impartial sharing rather than when it is bargaining.

Descriptive evidence in Table 3 supports these predictions. The first column reports individual choices when team members select between the respective peer-based mechanism and an even split. Consistent with H1a, 52.53% of participants choose an *even split* over *bargaining*. The 95% confidence interval for this estimate is [41.41%, 63.64%], which is clearly above zero. Consistent with H1b, 67.39% choose an *even split* over *impartial sharing*. The 95% confidence interval for this estimate is [60.72%, 74.06%], which is again well above zero. Taken together, these results strongly support our prediction that a significant proportion of team members chooses an even split over more wealth-maximizing alternatives that rely on peer-based control.

The second column of Table 3 reports outcomes at the team level. As outlined in the Methods section, the allocation mechanism favored by a simple majority of team members (i.e., two out of three) is implemented. Consistent with our expectations, 54.55% of teams implement an *even split* in the *bargaining arm*, and 78.26% of teams implement an *even split* in the *impartial sharing arm*. The third column reports the distribution of individual choices within each team. In the *bargaining arm*, 6 teams unanimously agree to implement an even split, 12 teams support an even split by simple majority, 10 teams reject an even split by simple majority, and 5 teams unanimously reject an even split. In the *impartial sharing arm*, 11 teams unanimously support an even split, 25 teams favor an even split by simple majority, 10 teams reject an even split by simple majority, and no team unanimously rejects an even split. These patterns reinforce our central prediction in Hypothesis 1 that, despite clear efficiency losses, most teams choose to implement an even split mechanism rather than a peer-based control mechanism.

In Table 4, we test our second hypothesis, which predicts that a greater proportion of team members selects an even split when the alternative is impartial sharing rather than bargaining. We estimate an OLS model of participants' chosen bonus allocation mechanism on the experimental treatment arm. Column (1) reports individual-level results and shows, consistent with H2, that the proportion of participants choosing an *even split* is 14.9 percentage points higher in the *impartial sharing arm* than in the *bargaining arm* ($p = 0.025$). Column (2) reports team-level results and again shows that teams are 23.7 percentage points more likely to implement an *even split* when the alternative is *impartial sharing* rather than *bargaining* ($p = 0.030$). Finally, vote distributions also differ across arms: the vote distribution is significantly more favorable to an *even split* in the *impartial sharing arm* than in the *bargaining arm* (0.446, $p = 0.026$). This variable is coded categorically and captures the number of team members voting in favor of an even split.

Taken together, these results provide consistent support for our main predictions in Hypotheses 1 and 2. A substantial proportion of team members chooses an even split over a peer-based control mechanism, despite the fact that evenly splitting the team reward leads to pervasive free-riding and sizable welfare losses. Moreover, this tendency to choose an even split is even stronger when the alternative is impartial sharing rather than bargaining.

5.3 TEAM MEMBERS' CHOICE OF MECHANISM (POST-TASK)

We elicited our main dependent variable of team members' choice of mechanism at the beginning of the study (i.e., after two practice periods but before the eight incentivized periods). At the end of the study, after participants had worked in the same team for eight periods and experienced one of the mechanisms in action, we again asked them to make a choice. They responded to two questions: (a) which mechanism they would like to use if working again with the same team, and (b) which mechanism they would like to use if working with a different team.

In Panel A of Table 5, we examine future interaction with the same team by comparing participants' pre-task choice with their post-task choice. In the *bargaining arm*, the overall tendency to choose an even split remains unchanged despite the clear productivity advantages of *bargaining* over an *even split* (52.53% vs. 49.50%, $\Delta = -3.03\%$, $p = 0.593$). When we separate the post-task choice by the mechanism actually experienced during the eight periods, a more nuanced pattern emerges. Among participants who experienced an *even split*, the tendency to choose an even split decreases ($\Delta = -20.37\%$, $p = 0.006$), whereas among those who experienced *bargaining*, the tendency to choose an even split increases ($\Delta = +17.78\%$, $p = 0.031$). This pattern suggests that experiencing bargaining makes participants less likely to choose bargaining when interacting with the same team again, which possibly reflects frictions associated with (see Section 5.4.4). In contrast, in the *impartial sharing arm*, the overall tendency to choose an *even split* decreases significantly (67.39% vs. 51.45%, $\Delta = -15.94\%$, $p = 0.001$). This decline is observed both among participants who experienced an *even split* ($\Delta = -13.89\%$, $p = 0.011$) and among those who experienced *impartial sharing* ($\Delta = -23.33\%$, $p = 0.032$). Thus, unlike teams who experienced bargaining, teams that experienced impartial sharing appear to have had a positive experience with the mechanism and are willing to use it again when interacting with the same team.

In Panel B of Table 5, we examine future interaction with a different team and again compare participants' pre-task choices with their post-task choices. The main takeaway is that when participants anticipate working with a different team, their tendency to choose an even split over a peer-based control mechanism remains strong. In the *bargaining arm*, the share choosing an *even split* remains unchanged ($\Delta = -1.01\%$, $p = 0.829$). In the *impartial sharing arm*, the share choosing an *even split* decreases modestly (Δ = –8.70%, p = 0.090), driven primarily by participants who experienced an *even split* and become more willing to try an alternative when interacting with a new team (Δ = –10.19%, p = 0.078). However, in contrast to future interaction with the same team, experiencing *impartial sharing* does not make them more likely to choose this mechanism over an *even split* when interacting with a different team (Δ = –3.33%, p = 0.769).

Taken together, these results show that participants' willingness to move away from an even split toward a peer-based control mechanism depends on whether future interactions occur with the same or a different team, as well as on which mechanism they experienced. When participants expect to continue working with the same team, experiencing bargaining increases their inclination to revert to an even split, whereas experiencing impartial sharing reduces their inclination to use an even split. In contrast, when future interactions involve a different team, their choices remain largely anchored in the initial predisposition toward an even split, and neither experiencing bargaining nor impartial sharing meaningfully shifts participants' post-task choices.

5.4 PROCESS EVIDENCE

5.4.1 Justification for Pre-Task Mechanism Choice

To better understand team members' why team members choose an even split, we asked them to justify their choice in an open-text field immediately after logging their selection. We used a large language model (GPT-4o) to classify these responses into thematic clusters based on recurring patterns. The model performed well, producing consistent and interpretable clusters. We manually reviewed all responses and found that only a handful required relabeling. To avoid introducing bias, we reclassified these cases into the "unclear or no justification" category.

Table 6 presents a ranked summary of the most common justifications. Panel A reports the justifications for selecting an *even split* over *bargaining* (left column) and over *impartial sharing* (right column). In both cases, the dominant justification was the belief that all team members should receive an equal share of the bonus, which was cited by 46.2% of participants. The second most common reason was the clarity and predictability of the even split, mentioned by 17.3% of participants in the *bargaining arm* and 16.1% in the *impartial sharing arm*. Interestingly, 10.8% of participants who rejected *impartial sharing* expressed concern about the lack of control over the bonus allocation. This concern about losing control is less frequently raised in the *bargaining arm* (3.8%). A small number of participants also cited their practice periods experience for choosing an *even split* (5.8% for *bargaining*; 3.2% for *impartial sharing*). Finally, two participants in each condition explicitly acknowledged a free-riding motivation.

Panel B focuses on participants who selected *bargaining* or *impartial sharing* over an *even split*. The belief that team members should receive a bonus that is proportional to their contribution emerges as the most frequently cited justification in both cases. For 36.2% of participants who selected *bargaining* and 51.1% of those who selected *impartial sharing*, this belief was the primary reason for their choice. For *bargaining*, a second common justification was the desire for control over the allocation process, with 19.1% of participants indicating that they value having a say in how the bonus is distributed. A smaller share of participants cited the relative novelty or appeal of the peer-based mechanism (10.6% for *bargaining*; 6.7% for *impartial sharing*). Moreover, 4.3% of participants who chose *bargaining* and 15.6% who chose *impartial sharing* cited their experience during the practice periods. Some were also motivated by a desire to maximize earnings (4.3% for *bargaining* and 8.9% for *impartial sharing)*. One participant stated an intention to collude with another teammate under *bargaining* by excluding the third member from the bonus.

5.4.2 Perceptions of Procedural and Distributive Fairness

At the end of the study, participants completed a short post-experiment questionnaire assessing their perceptions of procedural and distributive fairness. All items were measured on 7-point Likert scales. Columns (1) and (2) of Table 7 present OLS regressions of procedural fairness on the experimental treatments. *Procedural fairness* is a four-item measure capturing the extent to which participants perceived the implemented mechanism as unbiased, based on accurate information, and consistent with ethical and moral standards (see Appendix A for details). Across all specifications, we find no significant effect of either the mechanism or the choice condition on procedural fairness. Columns (3) and (4) of Table 7 report OLS regressions of *distributive fairness* on the treatment dummies. Distributive fairness is a four-item measure capturing the extent to which participants perceive their allocated share of the team reward as reflecting their individual effort contributions to team output. Because the endogenous versus exogenous choice condition does not affect perceptions of distributive fairness, we focus on the simpler specification in column (3). We find that both *bargaining* (0.963, $p < 0.001$) and *impartial sharing* (0.627, $p = 0.004$) significantly increase distributive fairness relative to even split. These results are consistent with the intent of the peer-based control mechanisms, which enable teams to discipline free riding by incorporating peer information about individual contributions into the allocation of the team bonus.

5.4.3 Perceptions of Team Cohesion

The post-experiment questionnaire also elicited participants' perceptions of *team cohesion*, defined as the quality of their interactions with other team members. Participants answered six questions, which we aggregated into a single team cohesion measure. Columns (5) and (6) of Table 7 present OLS regressions of this composite measure on the experimental treatments. Because the endogenous versus exogenous choice condition does not affect perceptions of team cohesion, we focus on the simpler specification in column (5). Consistent with our expectations, we find that both *bargaining* (0.750, $p = 0.022$) and *impartial sharing* (0.819, $p = 0.003$) significantly increase team cohesion relative to an *even split*. Table 8 provides a more granular analysis by examining each of the six questions individually: (1) *team enjoyment*, (2) *team performance*, (3) *team commitment*, (4) *team cooperation*, (5) *team identification*, and (6) *team trustworthiness*. Across all six dimensions, both *bargaining* and *impartial sharing* yield significant improvements in perceived team interactions. These results are noteworthy given that prior research suggests that differentiating pay among team members can undermine team cohesion (e.g., Rosenbaum et al. [1980], Wageman [1995], Arnold and Tafkov [2019]). In contrast, our results suggest that when peer information is used effectively to discipline free riding, peer-based control mechanisms can enhance—rather than erode—the quality of team interactions. Thus, peer-based control mechanisms generate not only material benefits in terms of higher team output and rewards, but also immaterial benefits in the form of stronger team cohesion.

5.4.4 Analysis of Bargaining Frictions

The design of the bargaining mechanism—where one team member is randomly selected to propose an allocation and fellow members vote on whether to accept or reject the proposal—generates rich process data. This allows us to examine the frequency and consequences of bargaining frictions, and to understand how the dynamics of the process relate to team cooperation. In total, 31 teams used bargaining to allocate the bonus, generating 248 bargaining rounds over the eight periods. In the majority of cases (214 out of 248 rounds, or 86.3%), teams reached agreement on the allocation in the first iteration. In 28 rounds (11.3%), two iterations were needed; in 3 rounds (1.2%), three; in 1 round (0.4%), four; and in 2 rounds (0.8%), five iterations.

These frictions were not without consequence. Teams that required multiple iterations to reach agreement exhibited lower average effort. In the first bargaining iteration, 54% of allocations (134 out of 248) were accepted unanimously. Teams that achieved unanimous agreement in the first bargaining round had significantly higher average contributions—30.29 points—compared to teams that did not reach unanimous agreement, which averaged only 20.47 points (difference = 9.82, $p < 0.001$). A subset of teams exhibited consistently smooth bargaining processes. In 6 out of 31 teams (20%), all eight bonus allocations were unanimously accepted in the first bargaining round. These teams also displayed exceptionally high levels of cooperation, with average effort provision of 37.56 points, which is close to the maximum of 40. This was significantly higher than the average of 22.95 points in the remaining 25 teams (difference = 14.61, $p < 0.001$).

These patterns suggest that while the bargaining process is generally efficient, variation in team agreement on proposals is associated with differences in effort provision. Teams that were able to align quickly and consistently around a fair allocation of the bonus were markedly more cooperative and productive. Importantly, bargaining frictions played only a very minor role in our setting, with almost 90% of teams agreeing on the bonus allocation in the first bargaining round.

6. Conclusions

In this study, we use a reward-allocation setting to examine how much autonomy over control mechanisms should be granted to teams. We compare simple even splits with two peer-based mechanisms—bargaining and impartial sharing. Both peer-based mechanisms increase effort provision by about 50 percent on average, with gains exceeding 100 percent in later periods, and they also enhance team cohesion, including enjoyment, commitment, identification, and trust. Despite these benefits, most teams choose even splits when given autonomy: a majority selects even splits over bargaining, and an even larger majority selects even splits over impartial sharing. This tendency to choose an even split persists even after teams gain first-hand experience with the mechanisms and observe their performance consequences. Taken together, our findings highlight a key tension in the delegation of decision authority. Autonomy within a control mechanism—such as enabling teams to use peer information to discipline free riding—can substantially improve team productivity, whereas autonomy over the choice of control mechanism may backfire as teams often fail to select mechanisms that serve their own best interests. More broadly, these results help explain the widespread use of even splits in practice despite their inefficiencies, and they underscore the potential limits of delegation in team-based organizations.

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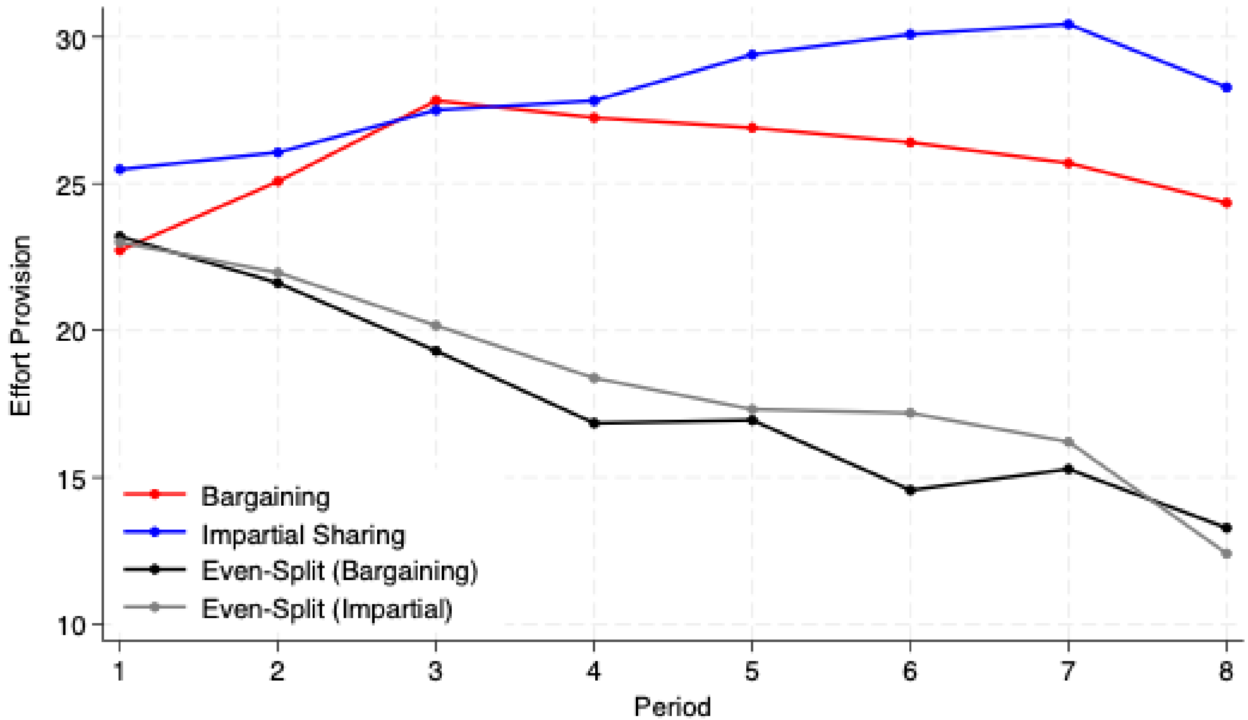
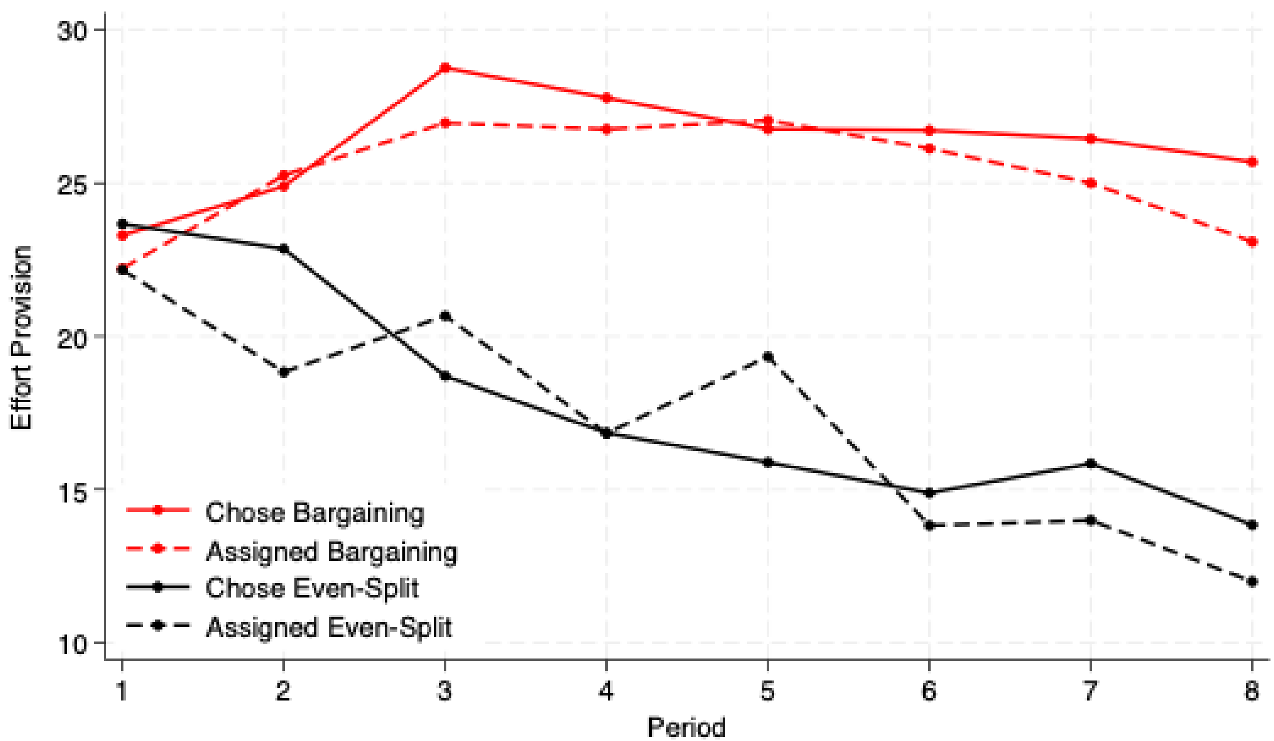
Figure 1: Effort Provision Over Time

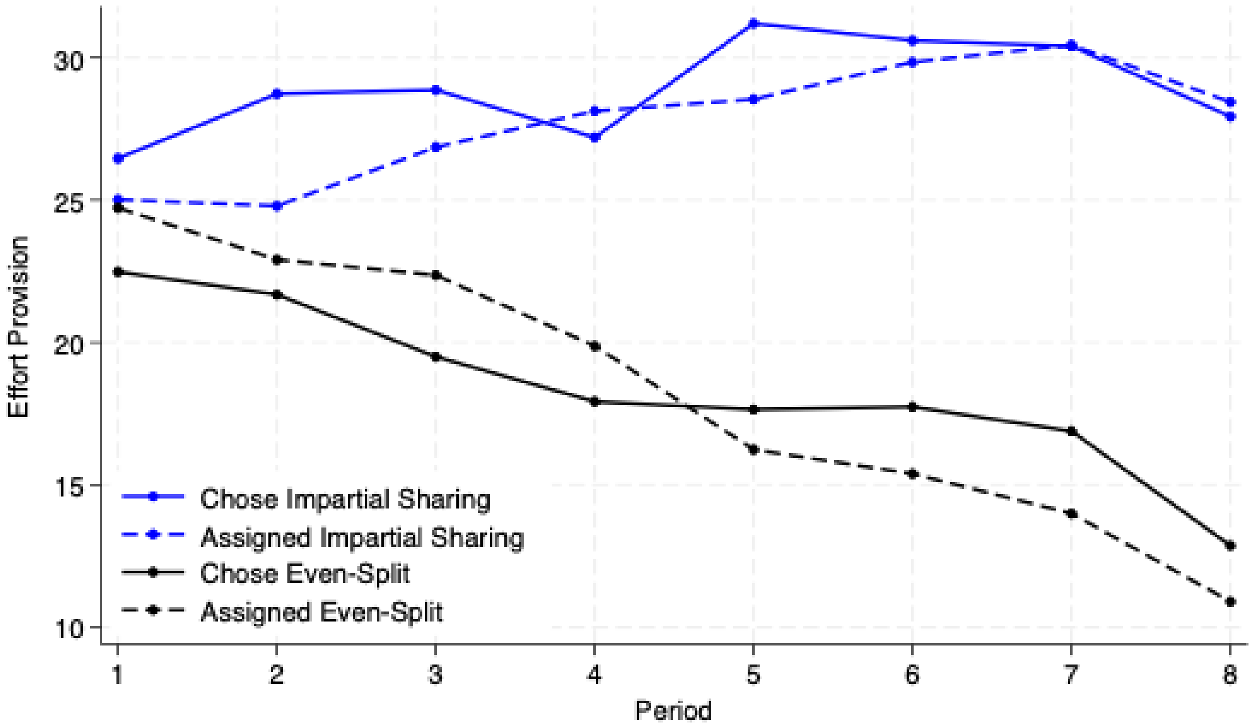
Panel A: Average Effort Provision (Pooled Across Endogenous and Exogenous Treatments)



Panel B: Average Effort Provision in Bargaining Arm



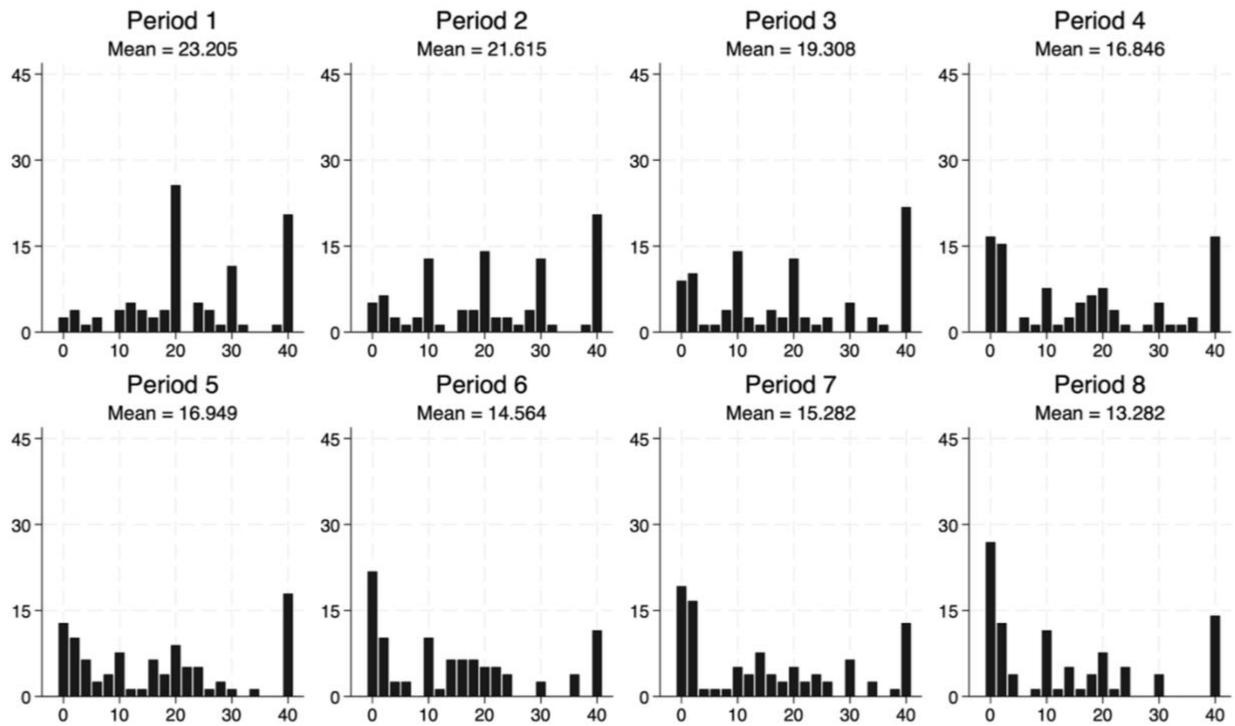
Panel C: Average Effort Provision in Impartial Sharing Arm



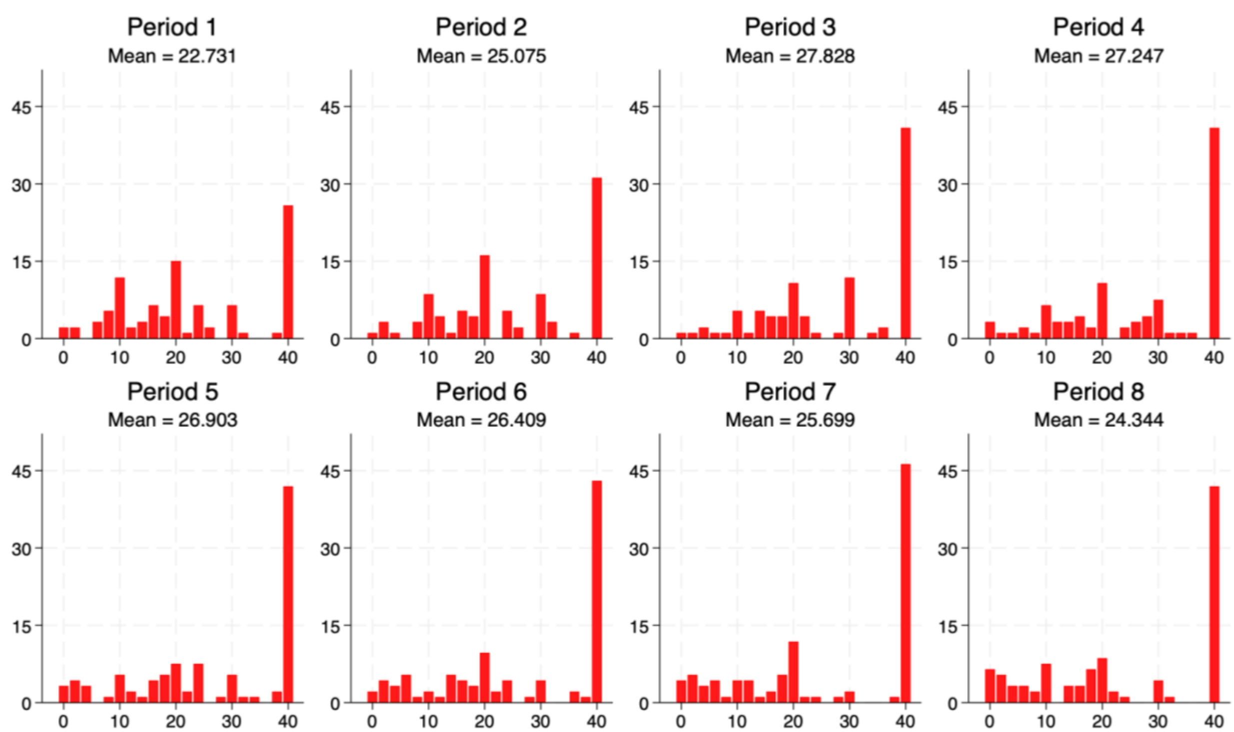
This figure shows team members' average effort provision (0 to 40 scale) across periods. Panel A shows the average effort provision for each reward allocation mechanism pooled across the endogenous and exogenous conditions. Panel B shows the average effort provision in the bargaining arm and Panel C shows it for the impartial sharing arm. The solid lines represents the endogenously chosen mechanisms and the dotted lines represent the exogenously assigned mechanisms. For details on definition of variables, please see Appendix A.

Figure 2: Effort Histograms (Pooled Across Endogenous and Exogenous Treatments)

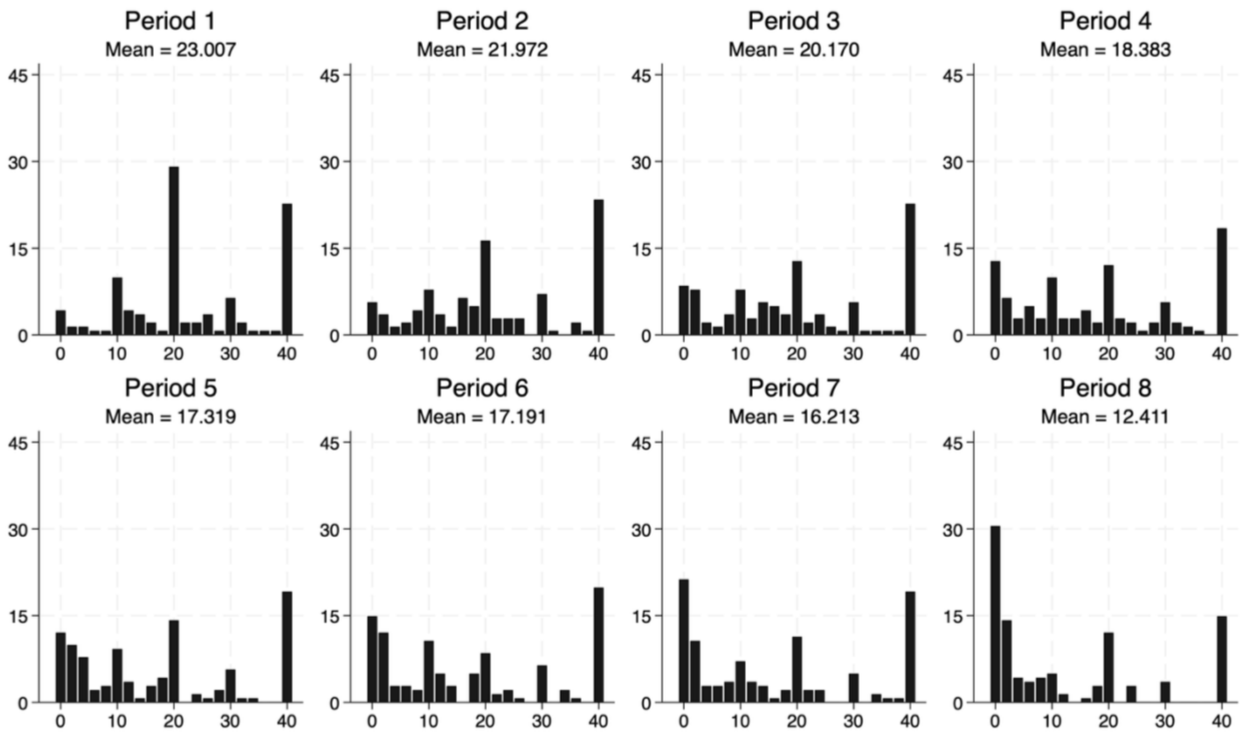
Panel A: Histograms of Effort Provision Under Even Split in Bargaining Arm (Pooled)



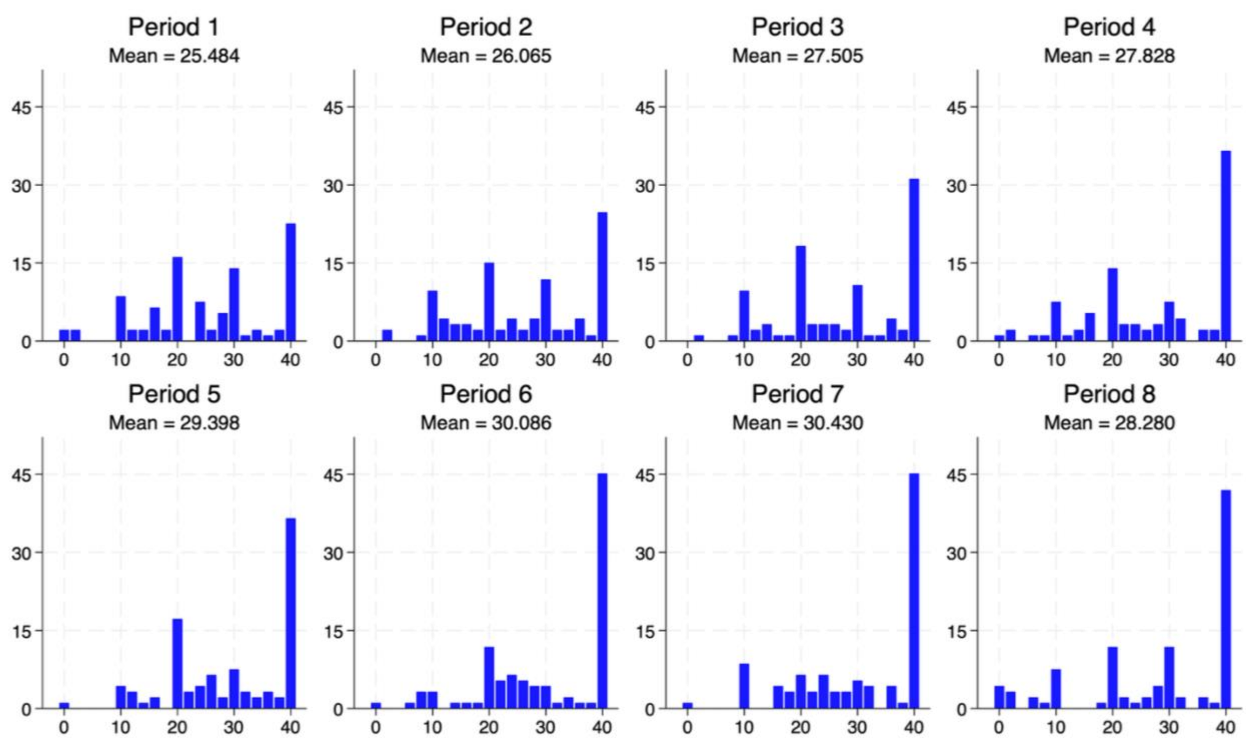
Panel B: Histograms of Effort Provision Under Bargaining (Pooled)



Panel C: Histograms of Effort Provision Under Even Split in Impartial Sharing Arm (Pooled)



Panel D: Histograms of Effort Provision Under Impartial Sharing (Pooled)



This figure illustrates, for each treatment and period, histograms of team members' effort provision to the joint team output (i.e., the percentages with which each effort contribution level from 0 to 40 occurs).

Table 1: Effort Provision – Descriptive Results

	Endogenous (Chosen Mechanism)	*Exogenous* (Assigned Mechanism)	Average (Pooled)
Even-Split (B)	17.819 (13.70) n = 432 / 54	17.208 (14.46) n = 192 / 24	17.631 (13.93) n = 624 / 78
Bargaining	26.289 (14.11) n = 360 / 15	25.302 (12.95) n = 384 / 16	25.780 (13.52) n = 744 / 31
Even-Split (I)	18.343 (14.09) n = 864 / 108	18.303 (14.60) n = 264 / 33	18.333 (14.20) n = 1,128 / 141
Impartial Sharing	28.925 (12.19) n = 240 / 10	27.758 (10.96) n =504 / 21	28.134 (11.38) n = 744 / 31

The table presents descriptive statistics for participants' effort contributions to the joint team output. Effort ranges from 0 (no effort) to 40 (maximum effort). Standard deviations are shown in parentheses beneath the corresponding means. The number of observations and unique participants (n) are reported below.

Table 2: Effort Provision – Regression Results

	(1)	(2)	(3)	(4)
Bargaining	8.148***	8.469**	2.937	2.906
	(2.60)	(3.63)	(2.73)	(3.78)
Even Split (I)	0.702	0.523	0.606	-0.281
	(2.25)	(2.65)	(2.46)	(2.82)
Impartial Sharing	9.801***	10.582***	2.981	5.390
	(2.00)	(3.39)	(2.11)	(3.62)
Exogenous		-0.611		-0.760
		(3.85)		(5.14)
Exogenous × Bargaining		-0.376		0.355
		(5.44)		(5.91)
Exogenous × Even Split (I)		0.572		3.562
		(5.06)		(5.67)
Exogenous × Impartial Sharing		-1.128		-5.412
		(4.70)		(4.94)
Period			-1.372***	-1.382***
			(0.37)	(0.45)
Period × Bargaining			1.489***	1.381*
			(0.48)	(0.77)
Period × Even Split (I)			0.027	-0.625
			(0.44)	(0.85)
Period × Impartial Sharing			1.949***	2.708***
			(0.33)	(0.61)
Exogenous × Period				0.033
				(0.80)
Exogenous × Period × Bargaining				0.209
				(1.00)
Exogenous × Period × Even Split (I)				0.855
				(1.00)
Exogenous × Period × Impartial Sharing				-1.224*
				(0.73)
Constant	17.631***	17.819***	22.434***	22.657***
	(1.76)	(2.10)	(2.05)	(2.37)
Observations	3,240	3,240	3,240	3,240
R-squared	0.102	0.102	0.130	0.132

This table reports OLS regressions of team members' effort provision toward the joint team output (dependent variable) on experimental treatments (independent variables). The constant represents the Even Split (Bargaining) condition. Column (1) presents a parsimonious model with dummies for the allocation mechanisms only. Column (2) adds dummies for exogenous choice and their interactions with the allocation mechanisms. Column (3) controls for period and their interactions with the allocation mechanism. Column (4) provides a full robustness specification, including all main effects and interactions. Robust standard errors clustered at the team level are reported in parentheses. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$.

Table 3: Choice (of Even Split) – Descriptive Results

	Individual Choice	Team Choice	Choice Distribution
Bargaining Arm (Choice of Even Split)	52.53% (50.19) n = 99	54.55% (50.56) n = 33	*3 Votes for Even Split:* 6 *2 Votes for Even Split:* 12 *1 Votes for Even Split:* 10 *0 Votes for Even Split:* 5
Impartial Sharing Arm (Choice of Even Split)	67.39% (47.05) n = 138	78.26% (41.70) n = 46	*3 Votes for Even Split:* 11 *2 Votes for Even Split:* 25 *1 Votes for Even Split:* 10 *0 Votes for Even Split:* 0

This table presents descriptive statistics on participants' choices of preferred bonus allocation mechanism. Based on their treatment arm, participants chose between *Bargaining* vs. *Even Split* or *Impartial Sharing* vs. *Even Split*. Column (1) reports individual-level choices (i.e., the percentage of participants favoring an even split of the team reward). Column (2) shows the resulting team-level outcomes. Column (3) displays the distribution of votes within teams. Teams adopted a mechanism if at least two out of three members voted in favor (i.e., simple majority). Standard deviations are reported in parentheses below the means. The number of observations (n) is reported below each statistic.

Table 4: Choice (of Even Split) – Regression Results

	(1) Individual Choice	(2) Team Choice	(3) Choice Distribution
Impartial Sharing Arm	0.149**	0.237**	0.446**
	(0.07)	(0.11)	(0.20)
Constant	0.525***	0.545***	1.576***
	(0.06)	(0.09)	(0.17)
Observations	237	79	79
R-squared	0.023	0.063	0.070

This table examines whether participants' tendency to choose an even splits differs across the available peer-based alternatives. Specifically, the table reports OLS regressions of participants' choice of bonus allocation mechanism on the experimental treatment arm (*Bargaining* vs. *Even Split* or *Impartial Sharing* vs. *Even Split*). Column (1) presents results at the individual level, while Column (2) reports group-level outcomes. Column (3) uses a categorical variable capturing the distribution of votes within each team. Robust standard errors clustered at the team level are shown in parentheses. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$

Table 5: Comparison of Pre- and Post-Task Choice (of Even Split)

Panel A: Pre- and Post-Task Choice Comparison When Working Again with the Same Team

	Pre-Task Choice	Post-Task Choice	Difference	Difference (split by experienced mechanism)		
Bargaining Arm	52.53%	49.50%	–3.03%	*Even Split:*	–20.37%***	(p = 0.006)
(Choice of Even Split)	n = 99	n = 99	(p = 0.593)	*Bargaining:*	+17.78%**	(p = 0.031)
Impartial Sharing Arm	67.39%	51.45%	–15.94%***	*Even Split:*	–13.89%***	(p = 0.011)
(Choice of Even Split)	n = 138	n = 138	(p = 0.001)	*Impartial Sharing:*	–23.33%**	(p = 0.032)

Panel B: Pre- and Post-Task Choice Comparison When Working with a Different Team

	Pre-Task Choice	Post-Task Choice	Difference	Difference (split by experienced mechanism)		
Bargaining Arm	52.53%	51.52%	–1.01%	*Even Split:*	–5.56%	(p = 0.411)
(Choice of Even Split)	n = 99	n = 99	(p = 0.829)	*Bargaining:*	+4.44%	(p = 0.486)
Impartial Sharing Arm	67.39%	58.70%	–8.70%*	*Even Split:*	–10.19%*	(p = 0.078)
(Choice of Even Split)	n = 138	n = 138	(p = 0.090)	*Impartial Sharing:*	–3.33%	(p = 0.769)

This table shows descriptive statistics on participants' chosen bonus allocation mechanism, comparing their choices before and after completing the task. Panel A reports their choice for working again with the same team, while Panel B reports their choice for working with a different team. In the column on the right side, results are shown separately by the allocation mechanism that participants actually used during the eight-period task. Differences between pre-task and post-task choices are evaluated using paired t-tests. Given the limited number of observations, we do not cluster standard errors at the team level. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$

Table 6: Justification for Pre-Task Choice of Bonus Allocation Mechanism

Panel A: Justifications for Choosing an Even Split

Even Split instead of *Bargaining*	
1) Equally sized bonus for all	46.2% n = 24
2) Unclear or no justification	21.2% n = 11
3) Predictable and clear	17.3% n = 9
4) Practice periods experience	5.8% n = 3
5) Intention to free ride	3.8% n = 2
5) Fear of losing control	3.8% n = 2
6) More interesting approach	1.9% n = 1
Total	100% n = 52

Even Split instead of *Impartial Sharing*	
1) Equally sized bonus for all	46.2% n = 43
2) Predictable and clear	16.1% n = 15
2) Unclear or no justification	16.1% n = 15
3) Fear of losing control	10.8% n = 10
4) Maximize payoffs	5.38% n = 5
5) Practice periods experience	3.2% n = 3
6) Intention to free ride	2.2% n = 2
Total	100% n = 93

Panel B: Ranking of Justifications for Choosing a Peer-Based Bonus Allocation

Bargaining instead of *Even Split*	
1) Contribution-based bonus	36.2% n = 17
2) Unclear or no justification	21.3% n = 10
3) Have control over allocation	19.1% n = 9
4) More interesting approach	10.6% n = 5
5) Practice periods experience	6.4% n = 3
6) Maximize payoffs	4.3% n = 2
7) Intention to collude	2.1% n = 1
Total	100% n = 47

Impartial Sharing instead of *Even Split*	
1) Contribution-based bonus	51.1% n = 23
2) Unclear or no justification	17.8% n = 8
3) Practice periods experience	15.6% n = 7
4) Maximize payoffs	8.9% n = 4
5) More interesting approach	6.7% n = 3
Total	100% n = 45

This table shows an exploratory analysis of participants' justification for their choice of control mechanism. After making their selection, participants provide brief open-ended explanations. These responses are initially classified using GPT-4o and subsequently reviewed and validated manually.

Table 7: Post-Experimental Questions – Procedural Fairness, Distributive Fairness, and Team Cohesion

	(1) Procedural Fairness	(2) Procedural Fairness	(3) Distributive Fairness	(4) Distributive Fairness	(5) Team Cohesion	(6) Team Cohesion
Bargaining	0.299	0.143	0.963***	1.073***	0.750**	0.873**
	(0.21)	(0.26)	(0.22)	(0.32)	(0.31)	(0.41)
Even Split (I)	0.163	0.181	-0.046	0.058	0.146	0.269
	(0.20)	(0.21)	(0.21)	(0.24)	(0.28)	(0.32)
Impartial Sharing	0.034	0.065	0.627***	0.776**	0.819***	0.946**
	(0.17)	(0.29)	(0.21)	(0.35)	(0.27)	(0.47)
Exogenous		0.058		0.374		0.281
		(0.42)		(0.27)		(0.51)
Exogenous × Bargaining		0.279		-0.365		-0.353
		(0.49)		(0.44)		(0.68)
Exogenous × Even Split (I)		-0.057		-0.328		-0.435
		(0.51)		(0.47)		(0.63)
Exogenous × Impartial Sharing		-0.046		-0.250		-0.086
		(0.42)		(0.51)		(0.60)
Constant	4.647***	4.630***	4.397***	4.282***	3.917***	3.830***
	(0.16)	(0.17)	(0.14)	(0.17)	(0.21)	(0.23)
Observations	405	405	405	405	405	405
R-squared	0.007	0.012	0.079	0.082	0.053	0.055

This table reports OLS models of process measures on experimental treatments. *Procedural Fairness* consists of the following four items: "To what extent have you had influence over your individual amounts arrived at by those procedures"; "To what extent have those procedures been free of bias?"; "To what extent have those procedures been based on accurate information?"; "To what extent have those procedures upheld ethical and moral standards?" It has a Cronbach's alpha of 0.692. *Distributive Fairness* consists of the following four items: "To what extent do the individual amounts allocated to you reflect your contributions?"; "To what extent are the individual amounts allocated to you appropriate for the outputs you have generated?"; "To what extent do the individual amounts allocated to you reflect your contributions to group output?"; "To what extent are the individual amounts allocated to you justified, given your contributions?" It has a Cronbach's alpha of 0.924. *Team Cohesion* is measured using the following items: "I liked working in my group."; "I felt that my group performed well."; "Everyone in my group worked for the group."; "My group members were cooperative."; "I identified with my group."; "The other members in my group were trustworthy." It has a Cronbach's alpha of 0.951. All measures were captured on 7-point Likert scales in the post-experiment questionnaire. Robust standard errors clustered at the team level are shown in parentheses. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$.

Table 8: Post-Experimental Questions – Team Cohesion Items

	(1) Team Enjoyment	(2) Team Performance	(3) Team Commitment	(4) Team Cooperation	(5) Team Identification	(6) Team Trustworthiness
Bargaining	0.613**	0.598*	0.878**	0.963***	0.755**	0.693*
	(0.31)	(0.33)	(0.37)	(0.35)	(0.32)	(0.37)
Even Split (I)	0.049	0.031	0.009	0.315	0.233	0.238
	(0.30)	(0.31)	(0.32)	(0.31)	(0.27)	(0.33)
Impartial Sharing	0.714***	0.921***	0.944***	0.745**	0.694**	0.895***
	(0.25)	(0.28)	(0.33)	(0.30)	(0.29)	(0.31)
Constant	4.397***	4.295***	3.487***	3.962***	3.654***	3.705***
	(0.25)	(0.25)	(0.24)	(0.25)	(0.20)	(0.26)
Observations	405	405	405	405	405	405
R-squared	0.034	0.045	0.049	0.048	0.037	0.034

This table reports OLS models of the six individual measures of *Team Cohesion* on experimental treatments. Column (1) reports perceived *Team Enjoyment*, measured with the statement "I liked working in my group." Column (2) reports perceived *Team Performance*, measured with the statement "I felt that my group performed well." Column (3) reports perceived *Team Commitment*, measured with the statement "Everyone in my group worked for the group."; Column (4) reports perceived *Team Cooperation*, measured with the statement "My group members were cooperative."; Column (5) reports perceived *Team Identification*, measured with the statement "I identified with my group."; Column (6) reports perceived *Team Trustworthiness*, measured with the statement "The other members in my group were trustworthy." All measures were captured on 7-point Likert scales in the post-experiment questionnaire. Robust standard errors clustered at the team level are shown in parentheses. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$.

APPENDIX A

Variable	Definition
Effort Provision	Participant i's effort contribution in period t, measured as the number of points contributed to the team outcome from an endowment of 40 points. The choice set is restricted to even integers from 0 to 40, with higher values indicating greater cooperative effort toward joint team output.
Bargaining	Indicator variable equal to 1 if the team's implemented bonus allocation mechanism is bargaining (0 otherwise). Each period, one randomly selected team member proposes a distribution of the team bonus and all team members vote to accept or reject the proposal. A proposal is accepted if a majority (i.e., two out of three) vote in favor.
Even Split (B)	Indicator variable equal to 1 if the implemented mechanism is an even split in the bargaining arm (0 otherwise). Each team member receives an equal share of the realized team bonus ($b_i = B/n$, with $n = 3$).
Impartial Sharing	Indicator variable equal to 1 if the team's implemented bonus allocation mechanism is impartial sharing (0 otherwise). In each period, every team member submits a self-excluding allocation that distributes the entire team bonus across the other two members only (no amount could be assigned to oneself; proposed amounts were required to be nonnegative, sum to the full bonus, and be stated in integers). A team member's realized bonus was then determined mechanically as the average of the two amounts that the other team members assigned to that individual.
Even Split (I)	Indicator variable equal to 1 if the implemented mechanism is an even split in the impartial sharing arm (0 otherwise). Each team member receives an equal share of the realized team bonus ($b_i = B/n$, with $n = 3$).
Bargaining Arm	Indicator variable equal to 1 if the team is assigned to the bargaining arm (0 otherwise), in which the two feasible mechanisms are even split versus bargaining.
Impartial Sharing Arm	Indicator equal to 1 if the team is assigned to the impartial sharing arm (0 otherwise), in which the two feasible mechanisms are even split versus impartial sharing.
Exogenous	Indicator variable equal to 1 if the mechanism selection procedure is exogenously imposed on the team (0 otherwise). After the practice periods, a computer algorithm randomly selects one of the two mechanisms available in the team's treatment arm, and the selected mechanism is then used throughout the eight main periods.
Endogenous	Indicator variable equal to 1 if the mechanism selection procedure is endogenously delegated to the team (0 otherwise). After the practice periods, team members vote between the two mechanisms available in the team's treatment arm. The mechanism supported by a simple majority (at least 2 of 3 votes) is adopted and then used throughout the eight main periods.

Period	Variable indicating the repeated-game period during the payoff-relevant stage of the experiment. The variable is zero-indexed, taking values from 0 to 7, which correspond to the eight incentivized periods.
Individual Choice	In the endogenous condition, a participant-level indicator capturing participant i's pre-task choice (i.e., vote) over the two mechanisms available in the team's assigned arm. It is coded 1 when the participant chooses an even split and 0 when the participant chooses the peer-based alternative (bargaining or impartial sharing, depending on arm).
Team Choice	In the endogenous condition, a team-level indicator for the mechanism adopted by majority vote. It is coded 1 when the team selects an even split and 0 when the team selects the peer-based alternative (bargaining or impartial sharing, depending on arm).
Choice Distribution	In the endogenous condition, a team-level categorical measure capturing the within-team distribution of votes for an even split. It is computed as the count of team members who voted in favor of an even split, taking values from 0 to 3, where higher values indicate stronger within-team support for an even split.
Procedural Fairness	Post-experiment perceived fairness of the bonus allocation procedure, measured as the mean of four items captured on 7-point Likert scales (higher values indicate greater perceived procedural fairness). The four individual items are (1) "To what extent have you had influence over your individual amounts arrived at by those procedures"; (2) "To what extent have those procedures been free of bias?"; (3) "To what extent have those procedures been based on accurate information?"; and (4) "To what extent have those procedures upheld ethical and moral standards?" The compound measure has a Cronbach's α of 0.692.
Distributive Fairness	Post-experiment perceived fairness of the bonus-allocation outcome, measured as the mean of four items captured on 7-point Likert scales (higher values indicate greater perceived distributive fairness). The four individual items are (1) "To what extent do the individual amounts allocated to you reflect your contributions?"; (2) "To what extent are the individual amounts allocated to you appropriate for the outputs you have generated?"; (3) "To what extent do the individual amounts allocated to you reflect your contributions to group output?"; and (4) "To what extent are the individual amounts allocated to you justified, given your contributions?" The compound measure has a Cronbach's α of 0.924.
Team Cohesion	Post-experiment perceived team cohesion, measured as the mean of six items captured on 7-point Likert scales (higher values indicate greater team cohesion). The six individual items are (1) "I liked working in my group."; (2) "I felt that my group performed well."; (3) "Everyone in my group worked for the group."; (4) "My group members were cooperative."; (5) "I identified with my group."; and (6) "The other members in my group were trustworthy." The compound measure has a Cronbach's α of 0.951.