



Equity-Autonomy Trade-Off: - delightful dilemma or dreadful decision?

An experimental study on choice when core values conflict

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Abstract

Autonomy and equity are both values of paramount importance in Western culture. Often, they harmonize and complement each other, however, they may also conflict. This is the topic of this thesis, where we study experimentally on a nationally representative sample of Norwegians, what people choose in a *trade-off* between *respecting others' preference* and *ensuring equity of outcomes*.

We use a novel research design where we make use of both an international online labor market platform to recruit *workers*, and a leading national data-collection agency to recruit *spectators*. The workers perform an assignment and choose their preferred payment scheme, while the spectators ultimately decide how the workers should be paid. In this way, we create a situation where the spectators must choose to either respect the workers' preference or ensure an equitable outcome.

We find that a large majority choose to ensure equity of outcomes, and that there is considerable heterogeneity across different subgroups. We also find causal evidence that suggests the spectators' motivation for overriding the workers' preference is concern for equity.

Further, we find that although equity concern is significant to the choice, it cannot fully explain it: a majority of the spectators still override the workers' preference in the absence of equity concerns. We propose projection of own risk preferences, increased risk aversion under responsibility, and aversion against being responsible for others' negative outcome as other possible explanations.

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There is, in fact, a manly and lawful passion for equality which excites men to wish all to be powerful and honored. [...] Not that those nations whose social condition is democratic naturally despise liberty; on the contrary, they have an instinctive love of it. But liberty is not the chief and constant object of their desires; equality is their idol.

(De Toqueville, 1956, original in French, first published in 1835)

1 Introduction

In Western culture, we place a high value on the individual's autonomy and freedom: freedom of speech, freedom of thought, freedom of choice – in general, the freedom to lead our lives the way we see fit. Another prominent ideal is a society that ensures fairness and equality: equal work should yield equal pay, and all individuals should be given the same rights and opportunities in life. In many respects, these values harmonize and complement each other, however, they may also conflict. Providing people with unconditional autonomy can create inequality, and conversely, interventions designed to diminish inequalities will typically also limit people's autonomy.

An example that epitomizes this conflict and demonstrates its roots in societal structure is in the field of primary education. *Education for all* is a fundamental principle of Norwegian politics, and posits that all shall have equal rights to education, regardless of where they live, social and cultural background, and any special needs (Kunnskapsdepartementet, 2007). As a consequence, public education is heavily subsidized and private actors face several restrictions and regulations. In the process of securing equality, people's freedom to choose education for their children is limited and the number of available alternatives reduced. The intuitive arguments against deregulation in this domain, is that it could lead to a clear division between the haves and the have-nots, as only the haves would be able to pay for the best education.

Another way autonomy can contribute to inequality, is gambling. Permitting gambling can indeed be seen as a way of allowing people the freedom to choose how they want to live their lives. However, gambling can also increase inequality through several mechanisms, some of these being the effect gambling expenditures has on net income, and that addictive behavior related to gambling can lead to increased income inequality (Freund & Morris, 2006).

Equality and autonomy, their limits and justifications, have been a topic of public and academic debate for centuries. Both values have been thoroughly studied, and we know a lot about people's attitudes toward them separately. However, to our knowledge, there is not much previous research on how people handle situations where these values conflict – where the concern for freedom of choice are at odds with equity of outcomes. This type of situation, which we will call an *equity-autonomy trade-off* is the topic of our thesis.

In this thesis, we study experimentally how people accommodate a conflict between autonomy and equity in a situation where they have no self-interest. Accordingly, the main research question is as follows:

In a trade-off between respecting others' preference and ensuring equity of outcomes, what do people choose?

We investigate people's choice in a trade-off situation with and without an equity¹ aspect, and explore whether their behavior may be explained by other factors in the choice situation.

In our study we use a novel research design where we make use of both an international online labor market platform, and a leading national data-collection agency. In the experiment a nationally representative sample of participants, *spectators*, must make a distributional choice that either respects someone's autonomy or leads to an equitable outcome. The spectators' task is to choose how a *matched pair of workers* should be paid for performing an assignment. The choices are either: (I) a lottery where, with equal probability, one will get 5 USD and the other 1 USD, or (II) a fixed payment where both will get 2 USD. The spectators are informed that the workers themselves have chosen (I), the lottery, as their preferred payment.

To investigate what motivates people when they make this trade-off, we use a treatment variation in the experiment that relates to whether the concern for equity is present. In the first treatment, *matched-pair*, the spectators make the choice on behalf of a pair of workers as outlined above. In this treatment, the spectator's choice is ultimately between respecting the workers' autonomy or ensuring a fair distribution between the two. In the second treatment, *individual*, the spectators make the choice on behalf of a single worker. Here, the aspect of fairness of outcomes should be absent. By using this treatment variation, our results will give causal evidence of whether concern for equity is a factor in the spectators' choice, as this concern should not be relevant in the individual treatment.

Our first main finding is that a staggering 73 percent of the spectators in the matched-pair treatment opt against the workers' preference and choose the fixed payment. This finding indicates that in this equity-autonomy trade-off, the majority prefers the equitable outcome.

¹ In this thesis we use the term equity to refer to fairness in the sense that people who do equal work should be compensated equally, and people who work more should be compensated more than those who work less. However, we recognize that the term equality, in the sense of equal compensation regardless of amount of work done, is also compatible with our situation.

Further analysis shows that there are notable heterogeneities in choice among different subgroups. In line with Fehr, Naef, and Schmidt (2006) and Cappelen, Fest, Sørensen, and Tungodden (2016), we find that females are more inclined to choose the fixed payment option, indicating that they are more egalitarian. The results also reveal that age and education affects the choice: elder spectators choose the fixed payment option more often, while spectators with higher education choose the fixed payment less often, than their respective counterparts. This corresponds with (Bellemare, Kröger, & Van Soest, 2008)'s finding that inequity aversion over others' outcome increases with age and falls with education.

Like Fehr et al. (2006), we find that political preferences are unrelated to the choice. We hypothesized that right-wing spectators would adhere to the workers' preference to a greater degree, in accordance with Cappelen et al. (2016)'s finding that right-wing spectators to a greater degree hold people accountable for their choices, but we find no difference between right-wing and non-right-wing spectators. We do, however, find that spectators who believe that society should aim to equalize income, choose the fixed payment option to some extent more often than those who do not agree.

Our second main finding is that the share opting against the workers' preference is considerably reduced, to 58 percent, in the individual treatment. This provides causal evidence suggesting that concern for equity is one of the explanations for why people override the workers' preference in the matched-pair treatment. Thus, our findings correspond with the concept of inequity aversion. However, it is puzzling that more than half of the spectators still opt against the worker's choice in the absence of equity concerns. This indicates that although equity was of importance to the spectators' choice, it cannot fully explain their choice.

We find that the treatment variation had a similar effect across all included spectator characteristics, with one exception: risk preference. The spectators who consider themselves risk averse had a significantly lesser effect of the treatment, 64 percent opted for the fixed payment, compared to 45 percent of non-risk averse spectators. Several possible explanations are proposed, such as projecting of own risk preferences, increased risk aversion under responsibility, and aversion against being responsible for negative outcomes of others. This finding is inconclusive as it could be explained by all these phenomena.

This thesis aims to serve as an addition to the understanding of how and why people make trade-offs when faced with the conflicting values of autonomy and equity. Our findings provide insight into what people emphasize on the individual level, which may also reflect their

preferences on a societal level. The subject of intervention to people's freedom of choice at a societal level is controversial and frequently discussed. Increased knowledge on people's true preferences and the hierarchy of values may be a contribution to policy assessment and a useful decision aid in processes where such intervention is determined.

The remainder of this thesis is organized as follows: Chapter 2 presents a theoretical backdrop that relates to the experiment and purpose of the thesis. Chapter 3 describes the experimental design and its implementation. In Chapter 4 we present our findings and analyses. Chapter 5 concludes the thesis by providing a summarizing discussion, and suggestions for future research.

2 Background

In this chapter, we provide a backdrop for the analyses and discussion by presenting some of the relevant literature on the topics addressed in the thesis, and explaining how these relate to our experiment and the purpose of the thesis. We begin by describing the ideas of freedom and autonomy, and how these are applied in different principles. We then move on to an assessment of different concepts that can explain why it may sometimes be deemed acceptable to limit someone's freedom and autonomy. These concepts include equity and equality concerns, risk preference, and responsibility effects. The two latter are related, in the sense that risk aversion can increase under responsibility, a remark that will be elaborated on in the relevant sections.

2.1 Freedom and Autonomy

The idea that the individual should be free, and its autonomy preserved is an idea that has been widely discussed in the literature for many years. A famous advocate for the autonomy of the individual is the English philosopher and economist John Stuart Mill. In his influential work *On Liberty*, he posits that “In the part which merely concerns himself, his independence is, of right, absolute. Over himself, over his own body and mind, the individual is sovereign” (Mill, 1909, pp. 19, first published in 1859). As such, Mill's stance is that the only situation in which it is acceptable to interfere with the liberty of another is when his or her actions pose a threat to others. In his view, concern for someone else's own good, it being physical or moral, cannot justify interventions to the individual's freedom (Mill, 1909). This view has come to be known as “Mill's harm principle” (Sunstein, 2014). One of the key arguments being that each individual is the expert on him- or herself, and therefore the best judge on what is in their own best interest.

A concept that is closely related to the harm principle, is consumer sovereignty (Sunstein, 2014). This concept also holds that the best judge of an individual's well-being is him- or herself, and that these judgements are revealed in their preferences (Sugden, 2004), which are materialized through choices. This view gives power to the consumer (Persky, 1993), and refers to the claim that individual utility, as well as social welfare, is maximized when individuals make their own consumption choices (Waldfogel, 2005). The logic behind being that if a better alternative exists, the consumer would choose it. The outcome that follows the consumers' own

choices, can therefore be deemed a Pareto optimal solution, in that any alternative to this outcome, involves that some consumers move to a less preferred position, to the detriment of welfare (Sugden, 2004). Applied to the situation in our experiment, the lottery represents a Pareto optimal solution. The consumers, in our case the workers, have chosen the lottery as their preferred outcome, and thus the fixed payment represents a less preferred outcome, which may reduce their well-being.

Evidence show that the ideas of autonomy and freedom have value to us beyond their instrumental benefit (Bartling, Fehr, & Herz, 2014). Bartling et al. (2014) find that decision rights have an intrinsic value to subjects. Thus, having freedom of choice seems to be important to us not only as a way of achieving a desired outcome, but also because freedom induces positive feelings linked to being in control of our own lives. This is further supported by Lammers, Stoker, Rink, and Galinsky (2016), who propose that a desire for power is partly rooted in a desire for autonomy, and conclude that an increase in autonomy lessens the desire for power. Thus, autonomy is clearly important to us, and according to self-determination theory, it is one of three innate needs (alongside with competence and relatedness) that are essential for our integrity, psychological growth, and well-being (Deci & Ryan, 2000).

2.2 Reasons to Limit the Individual's Autonomy

2.2.1 Limitations in Rationality and Cognitive Capacity

In theory it may be easy to agree with the ideas and rationale behind securing the autonomy of the individual. In practice, however, the situation is not as simple, and every civilization has developed laws and other interventions that limit the individual's autonomy beyond Mill's harm principle. These types of interventions are cases of paternalism, which can be defined as "(...) the interference with a person's liberty of action justified by reasons referring exclusively to the welfare, good, happiness, needs, interests, or values of the person" (Dworkin in Wasserstrom, 1971, pp. 181-182).

The questions of what types of paternalism are permissible, and to what extent paternalism itself is permissible, are questions that seem very difficult to answer. However, several principles beyond Mill's harm principle have been proposed as acceptable reasons for paternalistic actions and the subject of paternalism in government policies is frequently a topic

of public and political debate. In recent years, this debate has gotten a new addition, namely the concept Libertarian Paternalism, introduced by Richard Thaler and Cass Sunstein (Thaler & Sunstein, 2003). Libertarian paternalism holds that some paternalism is unavoidable, as every created situation, law or policy favors one option or course of action. They claim it is possible to implement policies that make the individual better off, while simultaneously preserving their liberty.

Another justification for libertarian paternalism is that people are not fully rational decision makers (Thaler & Sunstein, 2003). This claim is supported by extensive findings from the field of behavioral economics; we have limited cognitive capacity and our decision making is prone to biases (Madrian, 2014), and we have nonstandard preferences, beliefs, and decision-making (Dellavigna, 2009, provides a good summary of field evidence). People also differ in terms of ability, which in the case of autonomy may favor individuals that are more able, and disadvantage those that are less able (Arneson, 1989). Self-control is also bounded, which means that behavior might deviate from actual preferences (Madrian, 2014). On this subject, Wozny and Krawczyk (2016) find that subjects actually reward restrictions imposed on their own choices, and that they also restrict both own and other's choices.

2.2.2 Securing Equity

One of the most prominent considerations that we propose as a reason for overruling other's autonomy, is securing equity or fairness. Historically, the prevailing view in economic models has been that individuals are purely motivated by self-interest without concern for other social goals (Fehr & Schmidt, 1999). However, this view has long since been moderated, and individuals' concern for equity has been one of several social factors that has been thoroughly researched through economic experiments (Bolton & Ockenfels, 2000).

One area of particular research interest, regarding both equity concerns and conflicting values, is the so-called equity-efficiency trade-off. Le Grand (1990) discusses this trade-off at a societal level on the subject of welfare programs. He poses that important criteria for such programs are that they should ensure equity and fairness, while simultaneously maintain, or preferably increase, efficiency. However, that "(...) a program designed to "increase" one may result in a "decrease" in the other" (Le Grand, 1990, p. 554). At the macro level this can be tied to welfare economics, and the trade-off between efficiency in terms of optimal production and allocation of resources, and equity in terms of how resources are allocated in society. At the individual

level, this trade-off can be present in situations where one must make a choice between what is the most economically efficient, and what one considers to be fair. Experimental evidence on this trade-off has shown that people are willing to trade economic efficiency for equity of outcomes, and that people are even willing to pay for equity, a concept referred to as inequity aversion² (Carlsson, Daruvala, & Johansson-Stenman, 2005; Fehr & Schmidt, 1999). Thus, for many it seems that economic efficiency does not justify perceived inequity.

The concept of inequity aversion, as defined by Fehr and Schmidt (1999), means that people resist inequitable outcomes, and that they are willing to give up some material payoff to move in the direction of more equitable outcomes³. Along with these lines, empirical evidence emphasizes the importance of social comparison processes, and shows that relative material payoffs affect people's well-being and behavior (Fehr & Schmidt, 1999). Difference in income across individuals with the same socioeconomic characteristics has a negative impact on job satisfaction (Clark and Oswald in Fehr & Schmidt, 1999), and Loewenstein, Thompson and Bazerman (referred to in Fehr & Schmidt, 1999) found that subjects exhibit a strong and robust aversion against disadvantageous inequality.

Related to our experiment, where the workers perform the same work and have the same characteristics, the spectators make a choice regarding relative material payoffs in the matched-pair treatment. Choosing the lottery will in this regard give one worker a low relative payoff, which some spectators might be reluctant to doing. The fixed payment will on the other hand provide both workers with the same payoff for the same work, meaning the spectators by doing this can avoid causing inequity⁴.

The evidence regarding the equity-efficiency trade-off and inequity aversion is interesting to us, because it sheds light on people's preferences and motivations in choice situations that serve

² The terms "inequity aversion" and "inequality aversion" are used somewhat interchangeably in the literature. We use the former throughout the thesis, but note, in line with ¹, that both aversion against inequity and inequality is compatible with our situation.

³ Another influential contributor to the model of inequity aversion, is Charness and Rabin (2002). Their claim is that when people equalize payoffs, they pursue *social welfare preferences*, and not *difference aversion*. We will not elaborate on this claim, but note its part in the literature on this topic.

⁴ Another important aspect for understanding inequity aversion, regards the source of inequality. In large-scale experiment on fairness views, Almås, Cappelen, and Tungodden (2016) find that Norwegians to a great degree hold egalitarian fairness views, which considers all inequalities unfair. And that they are more willing to accept inequality when it is due to differences in productivity, a meritocratic fairness view. As the workers in our experiment are equally productive, paying them equally is in line with both egalitarian and meritocratic fairness views. In light of these findings, we expect to see equity promoting behavior as the outcome of the lottery may be viewed as unfair.

as proxies for decisions in real life. In the same way that securing equity may hinder efficiency, it may also limit the individual's autonomy, as exemplified in the introduction.

2.3 Other Aspects of the Situation That May Affect Choice

2.3.1 Risk Preference and Projection Bias

In standard economic theory, decisions under risk are based on expected utility. However, extensive amounts of research have since dismissed the idea that this is the most important determinant in decisions under risk, and found that most people are risk averse, and that our risk preferences are affected by a myriad of factors like framing, reference points, salience, degree of certainty, and feelings (Gneezy, List, & Wu, 2006; Kahneman & Tversky, 1979; Kahneman, Tversky, & Pallak, 1984; Loewenstein, 2000; Loewenstein, Weber, Hsee, Welch, & Eisenberg, 2001; Simonsohn, 2009). In theory, the spectators' risk preference should not affect their choice in our experiment, as the outcome does not affect them, and the workers have clearly stated their preference for the lottery. Still, there are ways their risk preference might influence their choice.

A known bias in our beliefs, projection bias, may give us an indication as to how the spectators' own risk preferences may affect their choice. Projection bias refers to our tendency to project our current state onto future states. We underestimate to what degree momentary information influences our beliefs and preferences, and therefore act and plan for the future in a way that is heavily influenced by our current state (Loewenstein, O'Donoghue, & Rabin, 2003). According to Loewenstein (2005), projection bias may also occur interpersonally. When people assess someone else's preferences or decisions they may project their own preferences onto them, and believe that these are closer to their own than is the case. And conversely, they might not understand how people can act in ways that do not match with their own state. In our experiment, risk averse spectators may project their own risk preference onto the workers, and come to believe that the workers made a mistake in choosing the lottery, and would actually prefer the safe payment.

Another factor related to projection bias, concerns emotions. By now, we know that people's emotional reactions to a situation may diverge from their cognitive evaluation of it. As emotional reactions are powerful and a feature of the current state, they will influence and may

even override cognitive deliberations (Loewenstein, 2000). This also corresponds with Loewenstein et al. (2001)'s risk-as-feelings hypothesis which pertains that anticipatory emotions, immediate visceral influences, play a large role in decision making. In our experiment, the risk averse spectators may have a negative emotional reaction to the lottery, and this may influence their choice.

2.3.2 Responsibility Effects

Because our experiment involves real people, and real-life consequences, the spectators may feel responsible for the outcome that follows the choice they make. Being responsible bears the risk of causing psychological stress associated with accountability, guilt, and blame. People's desire to avoid these negative consequences has been called responsibility aversion and centers around people not wanting to be responsible for others' negative outcomes (Leonhardt, Keller, & Pechmann, 2011). In our situation, this could entail spectators' opting for the safe option to avoid being responsible for someone losing the lottery.

Along the same lines, Gordon-Hecker et al. (2017) introduce the term inequity responsibility aversion. In a series of experiments concerning allocation of resources, they find that people are inequity averse, that they prefer equity over efficiency, but that they do less so when they are not responsible for who gets what. In addition, they find that people would discard a reward rather than decide which of two equally deserving individuals should receive it. Thus, being responsible for the workers' outcome, may make the spectators more inequity averse.

Responsibility may also affect the people's risk preference in a choice situation without reflecting their general risk preference. Pahlke, Strasser, and Vieider (2015) explore the difference in risk attitudes in decisions for oneself versus decisions that also involve others. They find that, for large probabilities in the gain domain, meaning only positive outcomes, being responsible for someone else's payoff increases risk aversion. The subjects in the study generally considered themselves to be more risk averse than the average participant, which suggests that they considered the subjects they were choosing for to be less risk averse than themselves. This is in accordance with the notion of a "cautious shift", that choosing for others leads people to make more risk averse choices (Reynolds, Joseph, & Sherwood, 2011). Others, however, find no difference in risk preference when deciding for oneself versus for others in the gain domain (Andersson, Holm, Tyran, & Wengström, 2016).

On the other hand, Chakravarty, Harrison, Haruvy, and Rutström (2011) find that when an individual makes a decision for an anonymous stranger (s)he exhibits less risk aversion relative to his or her own risk preference, and to the belief about the other's risk preference. Their finding is that the decisions for others tended toward risk neutral. As risk neutrality is the "rational" risk preference, in accordance with expected utility theory, this finding could be explained by the fact that people are more rational when the decision is more hypothetical. As we will elaborate on in chapter 3, the situation in our experiment is not hypothetical, since the spectator choice may have real consequences. However, the workers are anonymous, which makes the social distance greater and may inspire more abstract and general thinking (Polman, 2012). Thus, the choice in our experiment, may influence the risk behavior of the spectators in either direction.

3 Research Design

This chapter provides an overview of our research design. We begin by describing how our experiment was designed, before explaining how it was carried out. Lastly, we will describe our empirical strategy.

The purpose of our study is to explore how people handle a trade-off between autonomy and equity. To establish a causal relationship, we require the possibility to control and change the situation. Hence, an experimental method is suitable as it gives us a considerable degree of control over the choice situation.

3.1 Design of the Experiment

In this section, we explain how our experiment was designed. This includes descriptions of design choice and the different phases of the experiment. The design of our experiment is based on a similar experiment performed by FAIR - The Choice Lab in the summer of 2017. We replicate the general design of this experiment and one of the treatments, our *matched-pair treatment*, but also add a new treatment, the *individual treatment*. Both will be explained further below. By using a tried-and-tested method (Almås et al., 2016; Cappelen, Konow, Sørensen, & Tungodden, 2013; Erkut, Nosenzo, & Sefton, 2015; Mollerstrom, Reme, & Sørensen, 2015), we strengthen the reliability and validity of our research.

The experiment has two types of participants, *workers*, and *spectators*. The spectators act as third parties, and make decisions on behalf of the workers regarding an outcome in which they have no self-interest. Absence of self-interest should provide us with results that are more representative of the spectators' general view, as associated biases are diminished. Void of self-interest concerns, we believe they are more likely to choose what they believe is right than what could benefit them.

Another advantage of the design is that it involves a real situation where the spectators' choice with a certain probability will have real consequences. Knowing this, the spectators' choice is more likely to reflect their true preferences. This is beneficial as choices regarding hypothetical situations may diverge from actual choices (Fifer, Rose, & Greaves, 2014; List & Gallet, 2001). Thus, this design is novel in that it both contains a feature that reduces unwanted bias and a feature that increases authenticity.

Our experiment consists of two phases; first the *worker phase* which is followed by the *spectator phase* a few days later. The consecutive order ensures that the workers have already done the work and stated their preference, so that the information provided to the spectators is correct, taking ethical considerations into account.

3.1.1 Phase 1: Workers Perform an Assignment and Choose Payment Scheme

The first part of the experiment involves the workers who perform a real effort assignment in the form of completing an online survey. The survey takes about five to ten minutes to complete. All participants receive a participation payment of 1 USD, and a bonus payment that depends on their choice and the choices of others.

The information about the bonus payment is presented at the final page of the survey. For the purposes of the bonus payment, the workers are matched with another participant who has completed the same assignment and the two constitute a matched pair. The workers are asked to state which of the two payment schemes they prefer:

(I) By a lottery where with equal probabilities one of you are paid 5 USD and the other is paid 1 USD for the assignment

(II) Both of you are paid 2 USD for the assignment.

Further, they are informed that there is a given probability that their choice will determine how they are paid and a given probability that the participant they are matched with will determine how they are paid. Then they are informed that if neither their choice nor the choice of the participant they are matched with is chosen to determine the bonus payment, we will ask a third party to determine their payment. Only the workers who choose option (I), the lottery, proceeds to phase 2 and are matched with a spectator.

The fact that the workers make an actual incentivized choice enables us to identify their true preference. In this sense, the design is also particularly fitting for incorporating an autonomy aspect through informing the spectators of the workers' choice.

The complete instructions given to the workers are provided in Appendix A.1. The survey the workers completed is not relevant to our analyses and is therefore not discussed further.

3.1.2 Phase 2: Spectators Choose Payment Scheme for the Workers

The second phase is conducted a few days after completion of phase 1. The spectators perform an online experiment where they make a distributive choice regarding the bonus payment to the workers and answer a set of questions about their demographics, preferences, and attitudes.

In the first part of the experiment we emphasize that the choice they are going to make may have consequences for a real situation, and that we will randomly draw every tenth respondent and implement their choice. Following, they are fully informed about phase 1:

“The participants were informed that their answers with a certain probability would be drawn to determine the payment between them. Alternatively, it would be determined by a third party.

Both participants answered that they preferred I, but their answer was not drawn to determine the payment - the payment will therefore be determined by a third party.

You are this third party, and we now want you to choose how the two participants will be paid. The participants will be paid according to what you decide within three weeks. You can choose between:

(I) By a random draw it will be decided that one of the two will receive 5 USD for the task and one will receive 1 USD for the task.

*(II) Both will be paid 2 USD for the task.”*⁵

The spectators can as such either adhere to the workers’ stated preference and choose (I) the lottery, or they can overrule the workers’ preference and give them (II) the fixed payment instead. An additional note is that the lottery is also the most efficient outcome both in that it maximizes aggregate payoff, and that it has the highest expected utility and value (3 USD for the lottery versus 2 USD in the fixed payment).

Subsequently, the spectators are asked to report their risk preference and stance on the claims “Society should aim at equalizing income distribution” and “Society should aim at securing individual freedom in economic choices”. The purpose of this part of the survey is to be able to analyze how these aspects among the spectators relates to the choice they make. The

⁵ The complete spectator experiment is provided in Appendix A.2.

spectators' risk preference is assessed by asking them "the general risk question" developed by Dohmen et al. (2011). This question "directly asks individuals to make a global assessment of their willingness to take risks" (Dohmen et al., 2011, p. 524), and is formulated as follows: "*How do you see yourself: are you generally a person who is fully prepared to take risks or do you try to avoid taking risks?*".

In addition, the spectators answer standard demographic questions about gender, age, education, municipality, household income and political orientation.

3.1.3 Treatment Variation: Removing the Concern for Equity

As mentioned, our experiment includes two treatments: the base treatment, matched-pair treatment, and a variation, the individual treatment. Both the workers and the spectators are randomly assigned to one of the two treatments. The matched-pair treatment is as outlined above. The individual treatment is identical in every respect but one: both phases involve a single worker instead of a matched pair. Thus, the worker's choice is between:

(I) By a lottery where with equal probabilities you are paid 5 USD or you are paid 1 USD for the assignment.

(II) You are paid 2 USD for the assignment.

With a given probability, your choice will determine how you are paid.

And, the spectator choice is between:

(I) By a random draw with equal probability it will be decided that the participant will either receive 5 USD or 1 USD for the task.

(II) The participant will be paid 2 USD for the task.

The intention behind adding the treatment variation was to solely remove the aspect of inequity caused by the uneven outcomes of the lottery in the matched-pair treatment. When designing the individual treatment, we therefore emphasized that the wording in the two treatments should be as similar as possible, keeping everything but this aspect equal. This strengthens the internal validity of our results, and allows us to demonstrate a causal relationship between the assigned treatment and the spectators' choice.

3.2 The Sample: Spectator Characteristics

In total, 1015 spectators participated in the experiment. Table 1 shows a summary of the sample of spectators by treatment.

Table 1: Summary of sample and balance test

	Matched-pair	Individual		P-value
	Mean (se)	Mean (se)	Total	
Female	.528 (.022)	.525 (.022)	.526 (.016)	0.9211
Age	51 (.734)	48.990 (.731)	49.992 (.519)	0.0527
College	.636 (.021)	.627 (.021)	.632 (.015)	0.7504
High income	.401 (.022)	.340 (.021)	.370 (.015)	0.0432
Right-wing	.350 (.021)	.293 (.020)	.321 (.015)	0.0516
N	506	509	1015	

Note: The table reports mean values of included variables. ‘Female’, a dummy for the spectator being female. ‘Age’, spectator’s age. ‘College’, a dummy equal to one if the spectator has an education level equivalent of a bachelor’s degree or higher. ‘High income’, a dummy equal to one if the spectator’s household income is over the median. ‘Right-wing’ is a dummy equal to one if the spectator voted for either the Conservative Party (H) or the Progress Party (Frp) at the general election in September 2017. P-value shows results from two-sample t-tests with equal variances. Standard errors in parentheses.

The summary in Table 1 includes means for the background variables relating to gender, age, education, income, and political orientation. The final column displays p-value from a two-sample t-test with equal variances, to test for balance between the two treatments. The total sample consists of 1015 spectators, 506 in the matched-pair treatment, and 509 in the individual treatment. The total gender distribution is 534 women, 267 in each treatment, and 481 men, with 239 in the matched-pair treatment, and 242 in the individual treatment. The average age in the total sample is 50 (49.99) years, and 51 years and 48.99 years in the matched-pair and individual treatment, respectively. 63 percent of the total sample have higher education (bachelor’s degree or equivalent, or higher), and this distribution is approximately the same in both treatments. In the matched-pair treatment, 40 percent of the spectators are defined as having high income, while this share is 34 percent in the individual treatment. This variable is somewhat unbalanced across treatments (p-value = 0.0432), but not to such an extent that we

believe it will affect the results of our analyses. 32 percent of the total spectator sample voted for either the Conservative Party (Høyre, (H)) or the Progress Party (Fremskrittspartiet (Frp)) at the last general election in September 2017.

The spectators' mean scores on our question regarding risk preference and the claims regarding economic equality and freedom in economic choices are reported in Table 2 below.

Table 2: Mean scores on preferences, and attitudes

	Matched-pair	Individual	Overall
Risk preference:			
How do you see yourself: are you generally a person who is fully prepared to take risks or do you try to avoid taking risks? (0-10)	4.448	4.378	4.413
Percentage "Risk averse"	66.0 %	67.4 %	66.7 %
Stance on economic equality:			
Society should aim at equalizing income distribution (0-10)	5.919	6.240	6.078
Percentage "Pro economic equality"	46.3 %	46.6 %	46.4 %
Stance on freedom in economic choices:			
Society should aim at securing individual freedom in economic choices (0-10)	6.741	6.802	6.771
Percentage "Pro economic freedom"	55.5 %	54.4 %	55.0 %

Note: The spectators had the option of answering "Do not know". These responses are removed from the calculation of the mean score. N is reduced from 1015 to 985, 954, and 939, respectively. All 1015 spectators are included in 0 in the dummy variables "Risk averse" "Pro economic equality" and "Pro economic freedom".

As the choice of payment for the workers preceded these questions, they may have influenced the spectators' responses. However, we find that they are fairly similar across the treatments. Histograms of the distribution of responses on each of these measures is provided in Appendix A.3.

3.3 Conducting the Experiment

As described, workers were matched with spectators in the second phase of the experiment. Due to budget restrictions, we used a 1:10 relationship matching between the workers and spectators. 1:1 matching could have made the spectators even more conscious of the consequences of their choice, but this is considerably more costly. As a compromise we went for a 1:10 matching, as it is less costly and still entails a real probability of actual consequences.

We wanted a relatively large and nationally representative sample of spectators, and planned to recruit 1000. This was achievable in one week through the data collection service that we used (described under). With 1000 spectators, half assigned to each treatment, and 1:10 matching, we needed 150 workers choosing the lottery. In the experiment conducted during the summer of 2017, approximately 40 percent of the workers chose the lottery. Therefore, we planned to recruit approximately 400 workers.

3.3.1 Recruiting the Workers

The workers were recruited from an online marketplace for work, the Amazon Mechanical Turk (mTurk). mTurk is a service that provides the opportunity of recruiting anonymous workers to perform tasks online. Recruiters create a Human Intelligence Task (HIT), which is posted on the mTurk website. Workers can browse through HITs and accept those that are of interest.

We recruited 368 workers; 243 workers were assigned to the matched-pair treatment and 125 workers to the individual treatment. Out of these, 105 and 54 workers from the respective treatments, chose payment scheme (I) the lottery. We randomly assigned 100 from the matched-pair treatment and 50 from the individual treatment to be part of the second phase of the experiment. All the workers were paid the participation fee of 1 USD within two days following completion of the assignment.

3.3.2 Recruiting the Spectators

The spectators were recruited using the data collection service Norstat. Norstat is a well-established market research company available in Norway that offers data collection through several channels, such as online surveys, phone interviews and personal interviews. Using Norstat means that we are provided with participants that are nationally representative (18+ years old) of the Norwegian population on observable characteristics (gender, age, and geography). We used their online service, which meant we could reach approximately 1000 participants through their weekly omnibus. We ensured that there were no recurring spectators from the similar experiment conducted by FAIR-The Choice Lab a few months prior. The fact that we used an external data collection company such as Norstat, which also means they kept our respondents anonymous, strengthens the reliability of our experiment as it removed several of the concerns related to participant and researcher bias (Saunders, Lewis, & Thornhill, 2016).

The same fact also meant that we did not have to report the survey to the Norwegian Centre for Research Data (NSD).

3.3.3 Matching Process and Determination of Bonus Payment

As we used a 1:10 relationship matching between workers and spectators, we had a small surplus of workers to be matched. We randomly chose 102 out of 105 workers from the matched-pair treatment and 51 out of 54 workers from the individual treatment and matched them with randomly chosen spectators. All random selections were done using the RAND function in Microsoft Excel. The lottery was decided using the RANDBETWEEN function in Excel.

After the matching process, the bonus payments were determined for all workers. All workers who were not a part of the second phase of the experiment were paid according to the payment scheme they preferred. All workers were given an explanation of how their bonus payment had been determined (Appendix A.4).

3.4 Empirical Strategy

In this section, we describe how we will analyze our collected data. All our statistical analyses are executed in the statistical software package Stata.

In the first part of the analysis, we focus on the equity-autonomy trade-off addressed in our research question.

The main empirical specification is as follows:

$$e_i = \alpha + \rho X_i + \varepsilon_i$$

Where e_i is an indicator variable for whether the spectator i chooses the fixed payment option, and X_i is a set of demographic variables. The background variables relate to gender, age, education, and income of the spectator, as well as the spectators' risk preference, stance on claims regarding economic equality and economic freedom, as well as their political orientation. With this specification, the estimated share of spectators choosing the fixed payment option in the matched-pair treatment is given by α .

In the second part of the analysis, we seek to investigate what happens when we eliminate the equity aspect, by adding the treatment variation. This is specified as follows:

$$e_i = \alpha + \beta \text{Individual}_i + \rho X_i + \varepsilon_i ,$$

where we add $\beta \text{Individual}_i$, an indicator variable for whether the spectator is in the individual treatment. The estimated share of spectators choosing the fixed payment option in the individual treatment is then given by $\alpha + \beta$.

In the third part of the analysis, we test for heterogeneity effects, to see if there are certain groups of spectators, defined on background of their demographics and preferences and attitudes, that respond differently to the two treatments. The heterogeneity analysis is conducted by adding interaction variables between the treatment indicator and the different variables to the above specification.

All variables studied in our analyses are in the form of dummy variables taking the value 0 or 1 to indicate the absence or presence of the feature in question. A complete list is provided in Appendix A.5.

4 Findings and Analysis

In this chapter we present the findings from our experiment, and seek to answer our research question: *In a trade-off between respecting others' choice and ensuring equity of outcomes, what do people choose?* At the heart of this question lies the assumption that the equity aspect will have a major influence on the choice. As this aspect is solely present in one treatment, we consider the determinants of the choice to be very different in the treatments. For this reason, we find it most appropriate to start by analyzing the choice in one treatment, before comparing and contrasting them.

We first provide an overview of the spectators' choice by different characteristics in the matched-pair treatment, before we present results from analyses⁶. Following, we introduce the individual treatment, and the differences between the treatments. Lastly, we turn to interaction variables to investigate whether some subgroups of spectators had more or less effect of the treatment variation.

4.1 Equity-Autonomy Trade-Off: Choice in the Matched-Pair Treatment

Our main finding is that an astonishing 73 percent of the spectators in the matched-pair treatment choose the fixed payment scheme, contrary to the known preference of the workers. These spectators thus limit the workers freedom in this economic choice - a choice that solely concerns the workers themselves, and where the spectator has no stake. By doing this they also violate consumer sovereignty and a Pareto optimal solution, in the sense that all involved parties preferred the lottery.

This result strongly suggests that something about this choice situation clearly favors the fixed payment option, even though this is not what the workers themselves have chosen. The finding is in line with the idea of inequity aversion, and may suggest that people value equity over

⁶ We have relied on Ordinary least squares (OLS) regression results throughout our analyses. As all our variables are indicator variables, this allows us to interpret coefficients as probabilities. As a control measure, we have performed the main analyses using non-linear model probit, and get the same results. Regression tables are provided in Appendix A.6.

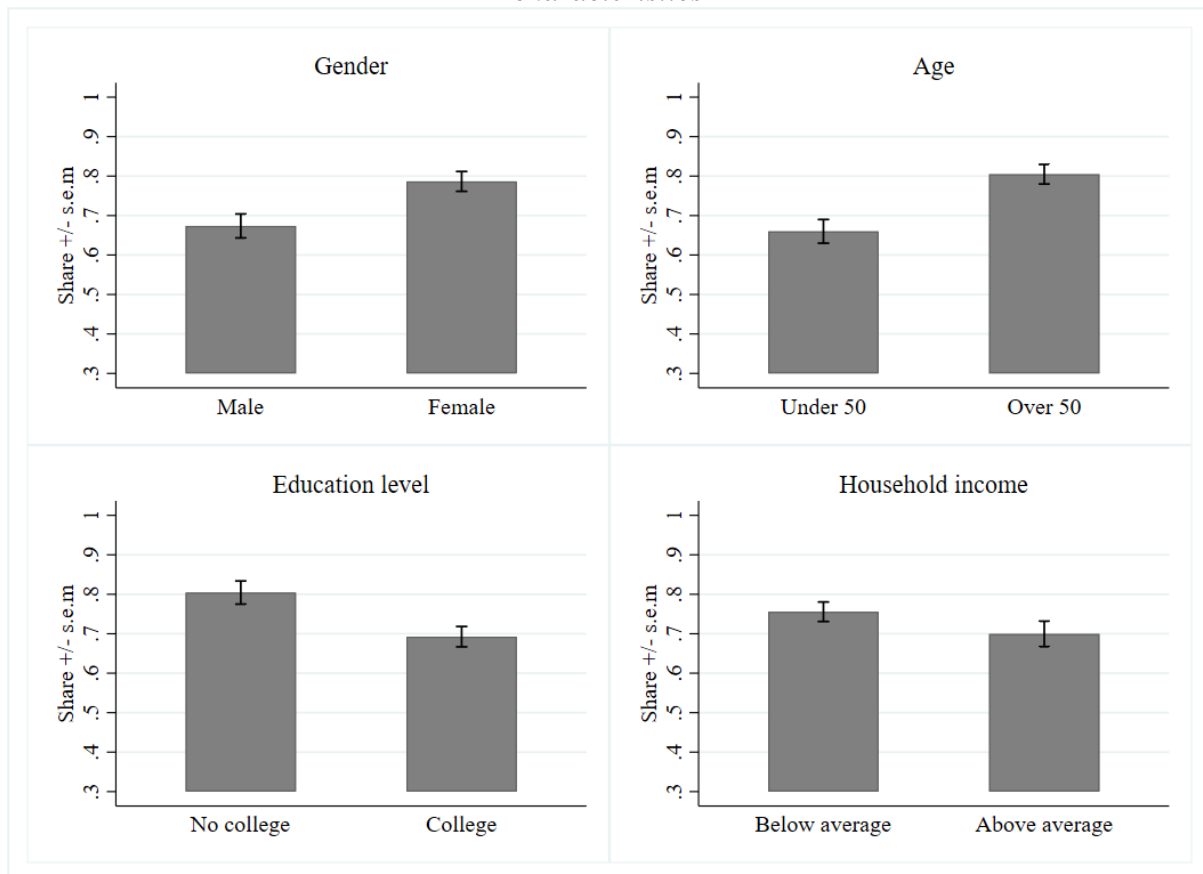
autonomy in this situation. However, we may not draw any conclusions at this point, as there may be several explanations for the findings.

In the following we further our understanding by investigating whether any demographic subgroups of spectators differ and whether the choice is influenced by the spectators' risk preference or political views.

4.1.1 Demographic Variables

Figure 1 below reports histograms of the choice for different spectator characteristics, and we observe that there is significant heterogeneity in the choices.

Figure 1: Share of spectators who chose the fixed payment by demographic characteristics



Women choose the fixed payment more than men (78.7 percent versus 67.4 percent); elder spectators more than younger spectators (80.5 percent versus 66.0 percent) and spectators with higher education less than spectators without higher education (69.3 percent versus 80.4 percent). However, whether the spectator's household income level is below or above average, does not seem to influence the choice considerably (75.6 percent versus 70.0 percent).

We now turn to a regression analysis of how the choice depends on these demographic variables in Table 3 below.

Table 3: Effect of demographic variables on choice in the matched-pair treatment

	(1) Fixed payment	(2) Fixed payment	(3) Fixed payment	(4) Fixed payment	(5) Fixed payment
Female	0.113** (0.039)				0.116** (0.039)
Over 50 years		0.145*** (0.039)			0.148*** (0.038)
College			-0.112** (0.041)		-0.099* (0.041)
High income				-0.056 (0.040)	-0.028 (0.040)
Constant	0.674*** (0.028)	0.660*** (0.028)	0.804*** (0.032)	0.756*** (0.025)	0.671*** (0.045)
Observations	506	506	506	506	506
R^2	0.016	0.027	0.015	0.004	0.059

Note: The table reports results from OLS regressions of spectator choice on a set of explanatory variables. 'Fixed payment' is the dependent variable taking the value one if the spectator opts against the workers' preference and chooses the fixed bonus payment. Independent variables include: 'Female', a dummy for the spectator being female. 'Over 50', a dummy equal to one if the spectator's age is above the mean of 50. 'College', a dummy equal to one if the spectator has an education level equivalent of a bachelor's degree or higher. 'High income', a dummy equal to one if the spectator's household income is above the mean. Standard errors in parentheses.

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

In (1) we find that women choose the fixed payment significantly ($p < 0.01$) more often than men. This is in line with previous research suggesting that women are more egalitarian (Cappelen et al., 2016; Fehr et al., 2006). In (2) we find that age is highly significant for the choice ($p < 0.001$), in that elder spectators equalize the workers' payment more often than younger. From (3) we observe that education level has the opposite effect in that spectators with higher education are significantly ($p < 0.01$) less inclined to override the workers' preference. The results in (2)-(3) are in line with Bellemare et al. (2008)'s findings suggesting that "(...) inequity aversion, in particular aversion to other's disadvantage, rises with age and falls with education" (Bellemare et al., 2008)⁷.

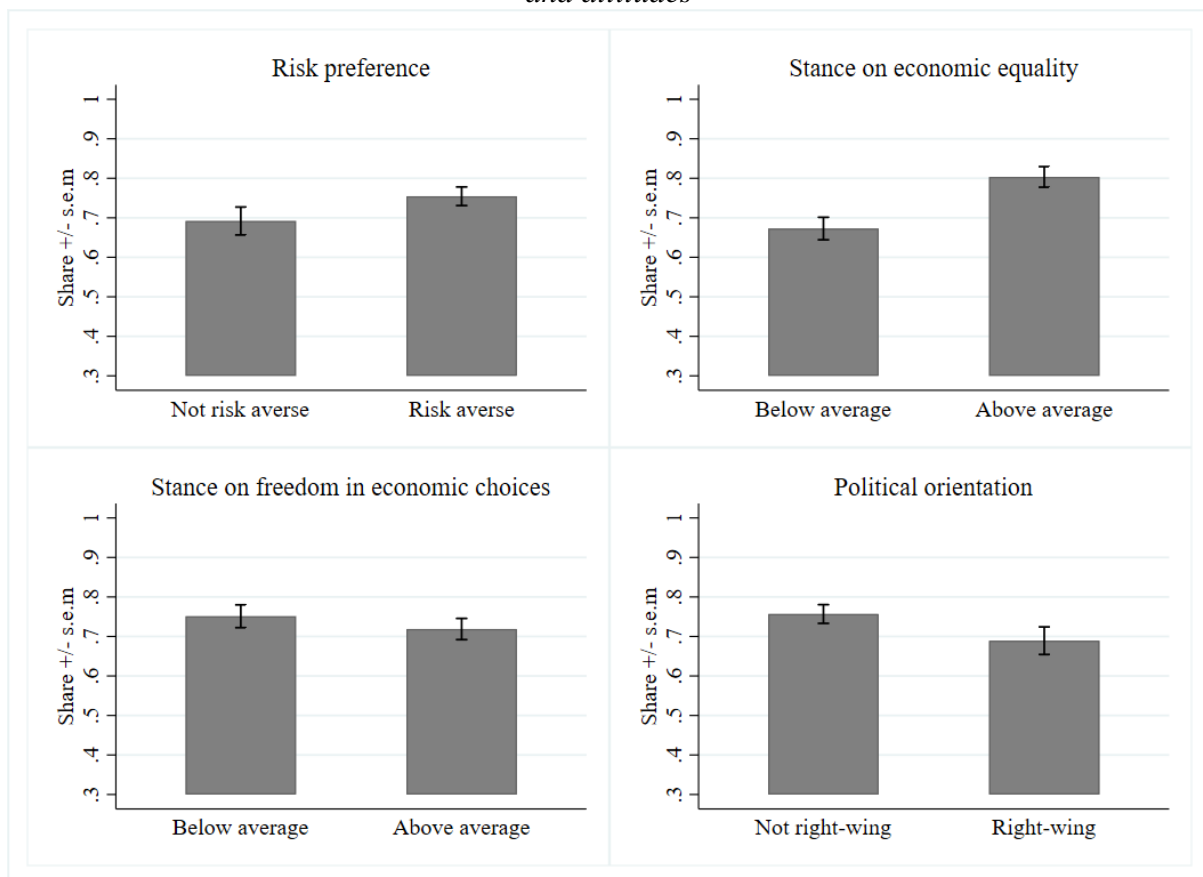
⁷ Our results also correspond with Bellemare et al. (2008)'s finding that young and highly educated subjects to are less averse against inequitable outcomes. In Appendix A.7 we report results showing a marginally significant interaction effect of being under the mean age of 50 and having college education.

Household income level does not have a significant effect on the choice. When we include all the demographic variables in the regression in (6) we observe that gender and age preserve their level of significance, while education becomes less significant ($p < 0.05$).

4.1.2 Risk Preference and Political Views

In Figure 2 below, we report histograms of the difference in choice by the spectators' risk preference and stance on claims regarding society's role in securing economic equality and in securing freedom in economic choices, in addition to political orientation.

Figure 2: Share of spectators who chose the fixed payment by preferences and attitudes



We note that there are differences, but they are generally not of the same order of magnitude as in the case of background characteristics, with one exception, stance on economic equality; 67.3 percent of the spectators who report below average compared to 80.3 percent of the spectators who report above average on this claim choose the fixed payment. The spectators' risk preference (69.2 percent versus 75.5 percent), stance on freedom in economic choices (75.1

percent versus 71.9 percent), and whether they voted for a right-wing party (75.7 percent versus 69.0 percent) does not appear to have had a large impact on their choice.

We now turn to a regression analysis of how choice in the matched-pair treatment depends on the characteristics presented in Figure 2, in addition to the demographic variables.

Table 4: Effect of preferences and attitudes in the matched-pair treatment

	(1) Fixed payment	(2) Fixed payment	(3) Fixed payment	(4) Fixed payment	(5) Fixed payment
Risk averse	0.023 (0.041)				0.026 (0.041)
Pro economic equality		0.116** (0.039)			0.108** (0.040)
Pro economic freedom			-0.012 (0.039)		0.001 (0.040)
Right-wing				-0.062 (0.041)	-0.029 (0.044)
Constant	0.657*** (0.051)	0.614*** (0.049)	0.679*** (0.051)	0.692*** (0.047)	0.612*** (0.063)
Background variables	Yes	Yes	Yes	Yes	Yes
Observations	506	506	506	506	506
R^2	0.060	0.076	0.059	0.063	0.077

Note: The table reports results from OLS regressions of spectator choice on a set of explanatory variables. 'Fixed payment' is the dependent variable taking the value one if the spectator opts against the workers' preference and chooses the fixed bonus payment. Independent variables include: 'Risk averse', a dummy equal to one if the spectator reports 5 or below (scale 0-10) regarding their willingness to take risks in general. 'Pro economic equality', a dummy equal to one if the spectator self-reports above the mean (6) on how much they agree that society should aim at equalizing income distribution. 'Pro economic freedom' is a dummy equal to one if the spectator self-reports above the mean (6.7) on how much they agree that society should aim at securing individual freedom in economic choices. 'Right-wing' is a dummy equal to one if the spectator voted for either the Conservative Party (H) or the Progress Party (Frp) at the general election in September 2017. Background variables include 'Female', 'College', 'Over 50', and 'High income'. Standard errors in parentheses, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

In (1) we find that being risk averse has no effect on the choice in this treatment. This was expected, as the spectator choice does not involve risk. Their choice has a given outcome in both options: either one worker gets 5 USD and 1 USD, or both get 2 USD. As the workers are equally productive and anonymous, the spectator has no stake in the distribution between the two.

Also in line with our expectations, we find that pro economic equality spectators indeed opt for the equitable payment scheme significantly ($p < 0.01$) more often. This provides further support for the presence of an equity concern in this choice.

Surprising, however, is the finding in (3)-(4) that pro economic freedom spectators and right-wing spectators do not to a significantly higher degree adhere to the workers' preference. These variables were thought to incorporate the notion of freedom in economic choices. The variable "Right-wing", represents the spectators who voted for one of the two right-wing parties in the general election held just weeks before our experiment, so their views on such matters should be up-to-date. This may indicate that the trade-off between equity and autonomy of this kind, has a similar result on both sides of the political spectrum in Norway.

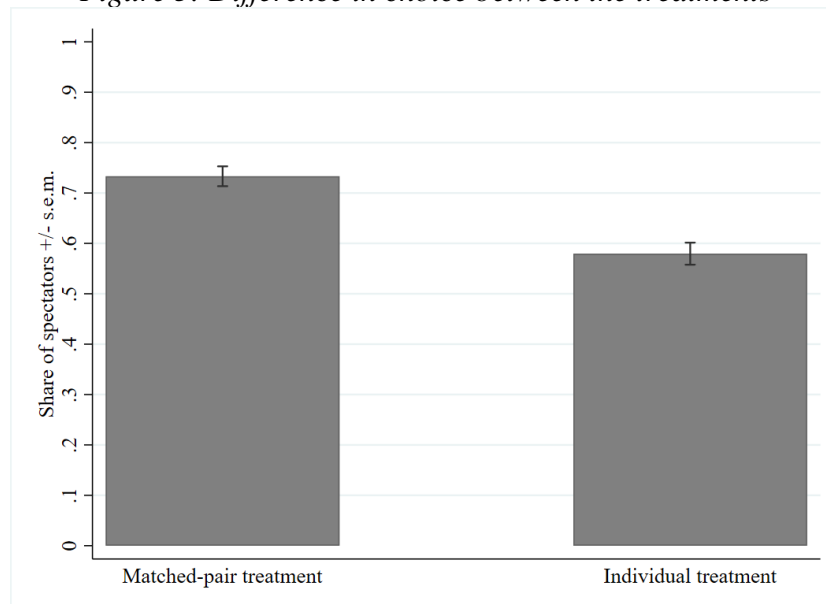
It can be noted that on the questions that the variables "Risk averse", "Pro economic equality" and "Pro economic freedom" were based on, the spectators answered on a scale of 0-10, but they also had the option of answering "Do not know". To test whether the results were disproportionately affected by including this option we did a robustness test where we removed respondents who answered "do not know" on two or all three of these claims, which reduced the sample from 1015 to 968. We find that all significance levels hold, and the magnitudes are similar. The regression table is provided in Appendix A.8.

To further our insight into the spectators' motivations for choosing to opt against the workers' preference, we continue by analyzing the effect of removing the equity aspect in the individual treatment.

4.2 Removing the Equity Aspect

Our second main finding is that in the individual treatment, when we remove the aspect of equal distribution, the share of spectators who override the worker's preference is reduced by 15.4 percent. The overall difference between the treatments is presented in Figure 3 below.

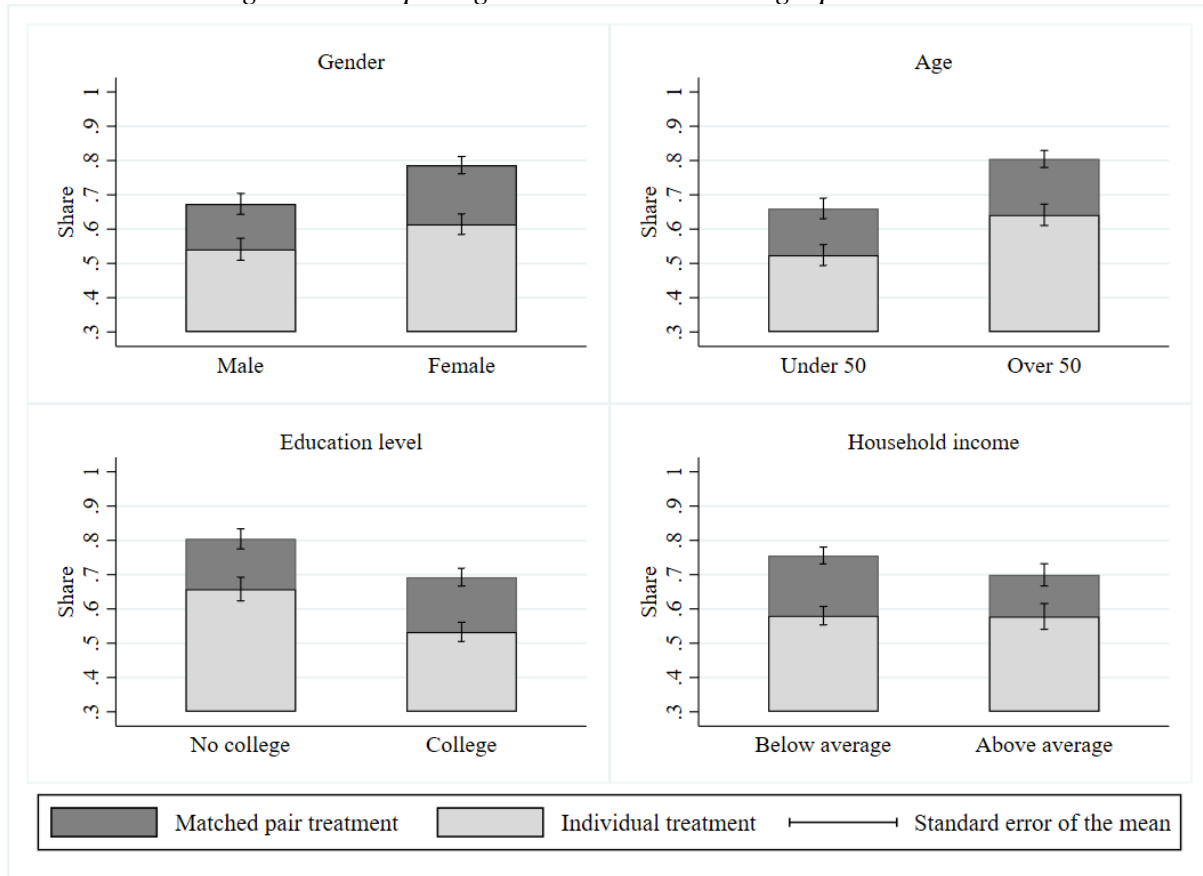
Figure 3: Difference in choice between the treatments



The treatment effect is highly significant ($p < 0.001$) and robust to the inclusion of demographic variables, risk preference and political views. Regression table is provided in Appendix A.9. This provides us with causal evidence suggesting that concern for equity was an important factor for the spectator choice in the matched-pair treatment. However, we are surprised that the reduction was not of a greater magnitude and find the fact that a clear majority of 58 percent still opt against the worker's preference puzzling.

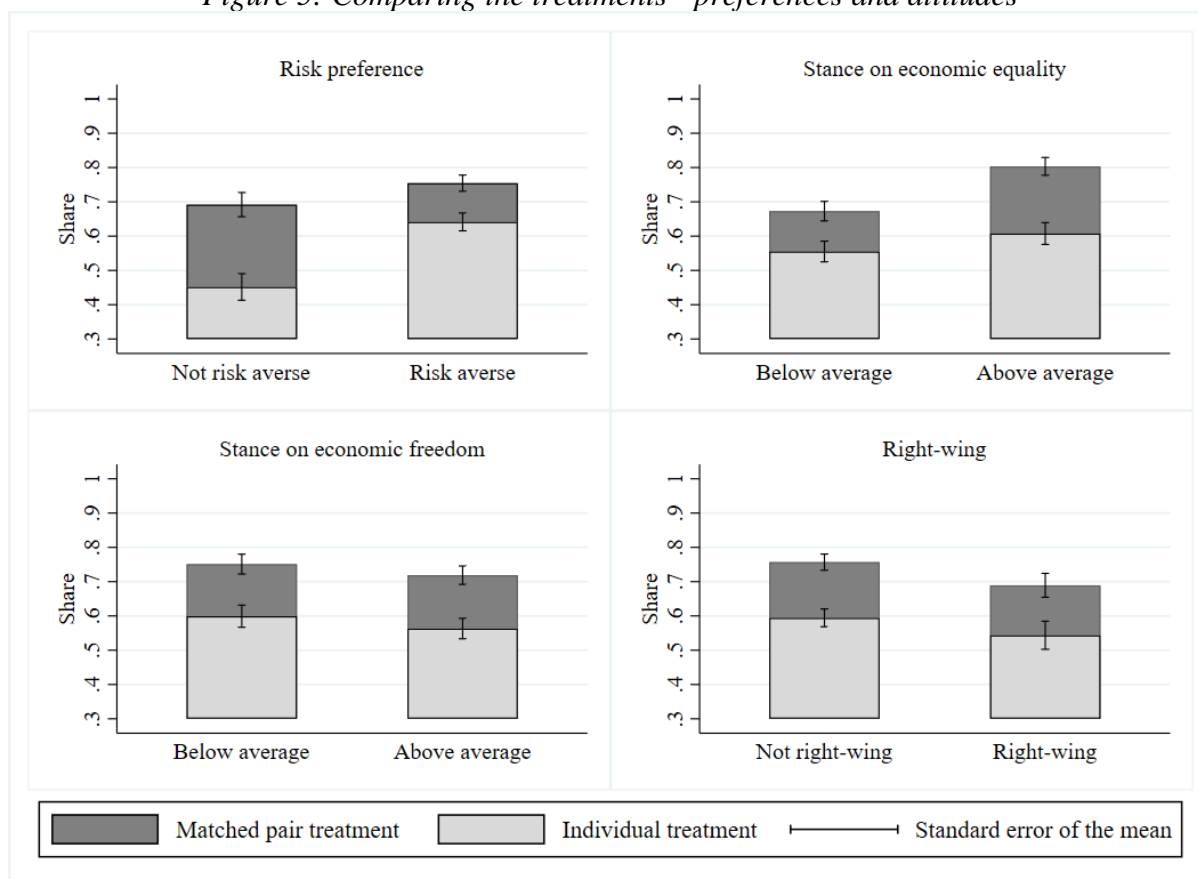
We hypothesized that the spectators in the individual treatment would to a much greater degree adhere to the worker's choice of payment scheme, as this was an individual economic choice. We seek to improve our understanding of the spectator choice by exploring whether possible explanations can be found in demographic variables, risk preference and political views. In Figure 4 we display the choice for the different demographic variables in each of the treatments.

Figure 4: Comparing the treatments - demographic variables



We observe that the share of spectators choosing the fixed payment in the individual treatment is lower than in the matched-pair treatment across all subgroups. In addition, the reduction appears rather synchronous for all the included variables. We proceed by exploring risk preference, and different political views thought to influence this choice in Figure 5 below.

Figure 5: Comparing the treatments - preferences and attitudes



Two features stand out here, risk preference and stance on economic equality. The spectators who are not risk averse choose the fixed payment to a much lesser degree in the individual treatment, 45.2 percent, than in the matched-pair treatment, 69.2 percent. The difference between the choice of the risk averse spectators however, is of much less magnitude, 64.1 percent in the individual treatment versus 75.5 percent in matched-pair.

By now we know that stance on economic equality was significant for the choice in the matched-pair treatment, but it does not appear to have much of an effect on choice in the individual treatment, where 55.5 percent of the spectators who report below average, compared to 60.8 the spectators who report above average, choose the fixed payment. Stance on economic freedom and voting for a right-wing party seem to have a similar effect on choice in both treatments. To gain a further understanding of the observations from Figure 4 and Figure 5 we will in the following sections look at heterogeneous treatment effects of demographic variables, and preferences and attitudes.

4.3 Heterogenous Treatment Effects

Following the initial observations regarding demographic variables and preferences and attitudes in Figure 4 and 5 above, we investigate further whether certain groups of spectators had a greater effect of the treatment than others. We do this by introducing interaction variables that allow us to isolate the additional effect of the treatment for different subgroups.

4.3.1 Heterogeneity in Demographic Variables

We start by exploring these potential *interaction effects* among the demographic groups in Table 5 below.

Table 5: Interaction effects - treatment and demographic variables

	(1) Fixed payment	(2) Fixed payment	(3) Fixed payment	(4) Fixed payment	(5) Fixed payment
Individual treatment	-0.132** (0.043)	-0.136*** (0.041)	-0.146** (0.048)	-0.175*** (0.037)	-0.150*** (0.029)
Female	0.113** (0.042)				0.093** (0.029)
Female x Individual	-0.040 (0.059)				
Over 50		0.145*** (0.041)			0.128*** (0.029)
Over 50 x Individual		-0.027 (0.058)			
College			-0.112** (0.043)		-0.108*** (0.030)
College x Individual			-0.013 (0.061)		
High income				-0.056 (0.043)	-0.003 (0.031)
High income x Individual				0.054 (0.061)	
Constant	0.674*** (0.030)	0.660*** (0.029)	0.804*** (0.034)	0.756*** (0.027)	0.689*** (0.037)
Observations	1015	1015	1015	1015	1015
R ²	0.036	0.045	0.041	0.028	0.068
<i>Linear combinations:</i>					
(a) Treatment + interaction	-0.172*** (0.040)	-0.163*** (0.042)	-0.160*** (0.037)	-0.121* (0.049)	
(b) Variable + interaction	0.073 (0.041)	0.118** (0.041)	-0.125** (0.043)	-0.002 (0.044)	

Note: The table reports results from OLS regressions of the dependent variable 'Fixed payment' taking the value one if the spectator opts against the workers' preference and chooses the fixed payment. 'Individual treatment' is a dummy equal to one for spectators in this treatment. Other independent variables include: 'Female', a dummy for the spectator being female. 'Over 50', a dummy equal to one if the spectator's age is above the mean of 50. 'College', a dummy equal to one if the spectator has an education level equivalent of a bachelor's degree or higher. 'High income', a dummy equal to one if the spectator's household income is above the mean. In addition, interactions between 'Individual treatment' and the other variables are included. Linear combination: (a) shows the effect of the individual treatment when the interacted variable is equal to one, (b) shows the effect of the respective explanatory variable in the Individual treatment. Standard errors in parentheses, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

From (1)-(4) we observe that there are no significant interaction effects, meaning that we cannot state that any of the demographic subgroups had a significantly greater or lesser effect of the treatment variation than others. From the results of the linear combinations in (a) we find that the treatment had a highly significant ($p < 0.001$) effect on all groups, except for high income spectators, where the effect is only marginally significant ($p < 0.05$).

The lincom measure in (b) “Variable + interaction” shows the effect of the corresponding variable in the individual treatment. In (1) we find that gender is not significant to the choice in the individual treatment, in contrast to the matched-pair treatment where it was significant ($p < 0.01$). Following previous research suggesting that women are more egalitarian than men (Cappelen et al., 2016; Fehr et al., 2006), this finding strengthens the belief that we were able to remove the equity aspect in this treatment. We find that the effect of age, education and income follows the same general pattern as in the matched-pair treatment, reported in Table 3. Overall, this supports our initial belief that the reduction is due to the removal of the equity concern.

4.3.2 Heterogeneity in Preferences and Attitudes

The most prominent observation from Figure 5, was the large effect of risk preference in the individual treatment, and accordingly, this is where we start. We will also explore possible treatment specific effects for being pro economic equality, pro economic freedom, and right-wing spectators.

Table 6: Interaction effects - preferences and attitudes

	(1) Fixed payment	(2) Fixed payment	(3) Fixed payment	(4) Fixed payment	(5) Fixed payment
Individual treatment	-0.238*** (0.050)	-0.114** (0.040)	-0.137** (0.043)	-0.156*** (0.035)	-0.153*** (0.029)
Risk averse	0.031 (0.043)				0.089** (0.031)
Risk averse x Individual	0.129* (0.061)				
Pro economic equality		0.119** (0.041)			0.068* (0.031)
Equality x Individual		-0.078 (0.058)			
Pro economic freedom			-0.017 (0.041)		-0.012 (0.030)
Freedom x Individual			-0.024 (0.058)		
Right-wing				-0.067 (0.043)	-0.032 (0.034)
Right-wing x Individual				0.007 (0.062)	
Constant	0.679*** (0.046)	0.633*** (0.042)	0.699*** (0.045)	0.714*** (0.040)	0.625*** (0.049)
Background variables	Yes	Yes	Yes	Yes	Yes
Observations	1015	1015	1015	1015	1015
R ²	0.080	0.076	0.069	0.071	0.084
<i>Linear combinations:</i>					
	<i>Risk- averse</i>	<i>Equality</i>	<i>Freedom</i>	<i>Right-wing</i>	
(a) Treatment + interaction	-0.109** (0.035)	-0.192*** (0.042)	-0.161*** (0.039)	-0.149** (0.051)	
(b) Variable + interaction	0.159*** (0.044)	0.041 (0.041)	-0.041 (0.041)	-0.061 (0.045)	

Note: The table reports results from OLS regressions of the dependent variable 'Fixed payment' taking the value one if the spectator opts against the workers' preference and chooses the fixed payment. 'Individual treatment' is a dummy equal to one for spectators in this treatment. Other explanatory variables include: 'Risk averse', a dummy equal to one if the spectator reports 5 or below (scale 0-10) regarding their willingness to take risks in general. 'Pro economic equality', a dummy equal to one if the spectator self-reports above the mean on how much they agree that society should aim at equalizing income distribution. 'Pro economic freedom' is a dummy equal to one if the spectator self-reports above the mean on how much they agree that society should aim at securing individual freedom in economic choices. 'Right-wing' is a dummy equal to one if the spectator voted for either the Conservative Party (H) or the Progress Party (Frp) at the general election in September 2017. In addition, interactions between 'Individual treatment' and the other explanatory variables are included. Background variables include 'Female', 'College', 'Over 50', and 'High income'. Linear combination: (a) shows the effect of the individual treatment when the interacted variable is equal to one, (b) shows the effect of the explanatory variable in the Individual treatment. Standard errors in parentheses. * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

The Non Risk-Averse Have Greater Effect of the Treatment

In (1) we find that the individual treatment has a large effect on the non-risk averse; the share of non-risk averse spectators choosing the fixed payment decreases from 0.679 in the matched-pair treatment to 0.441 in the individual treatment. In line with our findings in Table 4, being risk averse in the matched-pair treatment, as represented by the variable “Risk averse”, is not significant to the choice.

The interaction variable in (1) is marginally significant ($p < 0.05$) and has a positive coefficient. As the effect of the treatment is negative, a positive interaction effect means that being risk averse moderates the effect of the treatment. The linear combination in (a) shows us that the effect of the treatment for the risk averse spectators is -0.109 ($p < 0.01$). Thus, we conclude that the effect of the individual treatment is lesser for the risk averse spectators.

These findings have several implications. Firstly, it confirms that in removing the equity aspect, we also introduced risk to the spectator choice, and risk undoubtedly affected their choice. Secondly, it indicates that the effect of removing the equity aspect is probably much greater than our overall treatment effect suggests. In the absence of risk, the spectators should to a greater degree respect the workers choice in this treatment.

Thirdly, it also suggests that, even though the outcome does not concern them, some of the spectators do not act like it. There may be several explanations for this: the risk averse spectators may project their own risk preference to the situation, and think that the worker must have made a mistake. Alternatively, they may have a negative emotional reaction to the lottery option, and base their choice on this initial notion. The risk averse may also be more averse against being responsible for someone else's loss.

Economic Equality Only Matters in the Matched-Pair Treatment

In our initial analysis of choice in the matched-pair treatment, we found that that being pro economic equality has a significant ($p < 0.01$) and positive effect on the choice. In Figure 5 we observed that it did not appear to have an effect in the individual treatment. As the individual treatment was designed to diminish the aspect of inequity between workers in the choice, we expected this measure to have different effects in the treatments.

In (2) we find no interaction effect for equality. The effect of pro economic equality in (b) is not significant, suggesting that these spectators do not to a significantly greater degree override the worker's preference in the individual treatment, where there is no equity concern⁸.

Although there was no significant interaction effect, we believe the measure's lack of effect in the individual treatment provides some support that we were successful in removing the equity aspect from the choice in this treatment.

Being Pro Freedom in Economic Choices Does Not Affect Respect for Freedom in This Economic Choice

In the regression in Table 4, we found that being pro economic freedom did not have a significant effect on spectator choice in the matched-pair treatment. This was somewhat surprising as we expected the pro economic freedom spectators to adhere to the workers' preference to a significantly higher degree. Figure 5 suggests the same tendency in the individual treatment, which is confirmed in (b) in (3) in Table 6. Accordingly, there is no interaction effect.

We find the lack of significant effects especially surprising for the individual treatment, where the aspect of equal distribution is reduced, and the choice more directly concerns individual freedom in economic choices. A possible explanation is that the claim "*Society should aim at securing individual freedom in economic choices*" did not have high enough construct validity, and that we were not able to capture the opinion we intended. This is supported by the fact that the mean score on this claim was higher than on the claim regarding economic equality (Table 2) even though their actual choices in our experiment clearly favor economic equality. This seems contradictory and may suggest that we were not able to measure the intended construct.

Another possibility is that there may be a discrepancy between what people claim to believe in a hypothetical, general, setting, and what they actually do. We also consider the possibility that there is something regarding the choice that exceeds the autonomy concern. One way of testing

⁸ It is possible that the spectators' stance on this claim was affected by the preceding payment choice, and as such difficult to infer causality. However, we do not find notable differences in the overall mean score between the treatments or the fraction of spectators deemed as "Pro economic equality" in the treatments, as can be seen in Table 2.

this is to analyze another trait that is related to the aspect of individual freedom in economic choices, political orientation.

Right-Wing Spectators Do Not Differ From the Rest

Stance on equal distribution of wealth, equal pay for equal work and individual freedom in economic choices are important foundations in different political ideologies. In Norway, the general consensus is arguably that while the left-wing parties emphasize equality and socialism, the right-wing parties to a greater degree put value on autonomy and libertarianism. In a study on choice and personal responsibility with Norwegian spectators, Cappelen et al. (2016) found that the right-wing spectators' choices were consistent with the view that people should be held personally responsible for their choices. This also suggests that they should put more weight on the individual's autonomy.

As such, we expected the political orientation of the spectators to influence the choice of bonus payment to the workers. As mentioned, the general election in Norway was held only a few weeks prior to our experiment, so their political affiliation should be representative of their current opinion. We hypothesized that right-wing spectators to a larger extent would respect the choice of the worker(s). Again, this expectation was greater for the individual treatment, as there was not a question of inequity in that treatment. In the matched-pair treatment, there was no significant effect of being right-wing on the choice.

In (4) in Table 6 we test for an effect in the individual treatment, but find no interaction effect or other significant effects of political orientation⁹. Hence, there were no significant differences in the choice of right-wing spectators in the two treatments, and no significant differences between right-wing spectators and non-right-wing spectators.

The lack of significant findings suggests that the spectators' decision in our experiment may relate to other factors than political orientation, or that it is not reflected in the typical left-right divide. A note on this, is that the choice the spectators faced was between equity and autonomy. Equity in the sense of fairness and "equal pay for equal work" can be argued to be of similar

⁹ As an additional test, we included the Liberal party (Venstre) to the right-wing variable. This makes the variable significant, but there is still no treatment effect. We also included a regression with each of the parties in the right-wing variable, and find that the Conservative party and the Liberal party are marginally significant ($p < 0.05$) and negative, while the Progress party is not significant to the choice. The regression table is provided in Appendix A.10.

importance across the political spectrum. The difference between right and left-wing parties in Norway resides more in the pure equality-notion: whether outcomes should be equal regardless. Another possible explanation for the lack of significant effects could be that the value trade-off in question is embedded in our culture, rather than in political stands.

5 Discussion and Conclusion

Our main purpose in this thesis was to answer the question: *In a trade-off between respecting others' preference and ensuring equity of outcomes, what do people choose?* We have found evidence that people to a large degree choose the option that ensures equity of outcomes; 73 percent of spectators chose to override the workers' preferred choice of payment. This finding corresponds with previous research demonstrating so-called inequity aversion, where people resist inequitable outcomes. Theory on relative material payoff also gives us a possible explanation as to why the spectators choose the equitable outcome, keeping in mind that a low relative payoff negatively affects our well-being.

Our analyses show that there are notable heterogeneities in choice among different subgroups. In line with Fehr et al. (2006) and Cappelen et al. (2016), we find that females are more inclined to choose the equitable option, indicating that they are more egalitarian. The results also reveal that age and education influences the spectator choice, where elder spectators equalize more often than the younger spectators, and spectators with higher education respect the workers' preference to a greater degree than those without higher education, in line with Bellemare et al. (2008). We find no significant effect of income.

Like Fehr et al. (2006), we find that political preferences are unrelated to the choice. We hypothesized that right-wing spectators would adhere to the workers' preference to a greater degree, in accordance with Cappelen et al. (2016)'s finding that right-wing spectators to a greater degree hold people accountable for their choices, but we find no difference between right-wing and non-right-wing spectators. In a similar fashion, we find no significant effect for spectators who agree that society should aim to secure freedom in economic choices. We do, however, find that spectators who agree that society should aim to equalize income, choose the fixed payment more often which supports the assumption that the choice involves equity concerns.

When we compare our findings to a choice without the aspect of equity, we find a significant reduction in the choice to overrule preferences. The share who opt against the workers' preference is considerably reduced, to 58 percent. This provides causal evidence suggesting that concern for equity is one of the explanations for why people override the workers' autonomy when it conflicts with equity concerns. Again, our findings correspond with the concept of inequity aversion and add to previous literature showing that people place great value on equity in trade-offs with other concerns.

The finding that the concern for an equitable outcome was explanatory for the spectators' decision, brings us to a more general discussion of why equity is such an important value to us. The notion of "equal pay for equal work" and the idea that everyone should have the same opportunities in life are both strongly embedded in Norwegian culture and reflected in legislation. We believe all these aspects influence the spectators' choice. Norway is a welfare state and has a strong social security system, but to be able to sustain such a system, everyone who can contribute, must do so. Choosing the equitable option is then more in line with these concerns. If one were to apply a lottery versus fixed payment-option to an entire population, the fixed payment would provide everyone with the same standard of living, which many would prefer to the alternative.

While we did find that removing the equity aspect reduced the number who opted against the worker's preference significantly, the magnitude of the reduction was smaller than expected. One possible explanation for this may be found in the result that the treatment variation had a significantly lesser effect for risk averse spectators. From this we may deduce that by changing the choice from regarding two workers, to an individual worker, we did not just remove the equity aspect, we also introduced a risk aspect. This notion is supported by the finding that risk averse and non-risk-averse spectators did not significantly differ in their choice in the matched-pair treatment.

The risk aspect in the payment choice regarding an individual worker, may therefore have clouded the autonomy aspect for the risk averse spectators. We do not have sufficient grounds to elaborate on why, but suggest that projection bias or emotional reactions to risky decisions may be a part of the explanation. We expect that if we were able to eliminate the risk aspect, the treatment variation would have had an even greater effect, as indicated by the large effect of the treatment on non-risk-averse spectators.

Another aspect of the choice situation that may have influenced the spectators is responsibility. As they are the ones who ultimately decide, they may feel responsible for the outcome, even though the workers have made a choice for themselves. As mentioned in chapter 2, previous findings regarding risk and responsibility are mixed, some suggesting risk-neutrality in decisions for others, while others find increased risk aversion under responsibility. The spectators may exhibit increased risk aversion because they feel responsible, and to a greater degree opt for the certain option. The risk aversion induced by responsibility, may not be

reflected in their response to the risk question, as it may not represent the spectators' general risk preference.

In addition to effect on risk preferences in the situation, responsibility may have another effect that does not strictly relate to risk. People may not be risk averse in general or over their own outcomes, but have an aversion against being responsible for others' losses, prompting them to opt for the fixed, certain, option. This may partly explain the spectators' choice in both treatments. A possible way of diffusing these effects of risk and responsibility that would be interesting for future research, is to include an accountability aspect to the choice situation. This could possibly alter the results, as having to explain one's choices, has been shown to make people more rational (Pahlke et al., 2015).

Our study may also serve as a contribution to public and political debate regarding which considerations should be ensured in situations where a concern for autonomy and equity conflict. The findings are representative of the Norwegian population, and increase our understanding of the relative value of equity and autonomy in this culture. In an extension, it would be very interesting to explore the equity-autonomy trade-off in cultures that differ considerably from ours, with the aim of exploring whether the emphasis on equity is embedded in our culture or a feature of human nature.

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Appendix

A.1 Qualtrics Survey - Workers

First page of the survey:

Please read the instructions below carefully

Introduction

Welcome to this research project! We very much appreciate your participation.

Your payment will consist of a participation fee of 1 USD.

Your payment for taking the HIT will be sent to you shortly after the completion of this HIT.

Procedures

You will be given instructions on your screen before every part of the survey.

The results from this study will be used in a research project. It is therefore important that you carefully read and follow all instructions.

Participation

Participation in this research study is completely voluntary. You have the right to withdraw at anytime or refuse to participate entirely without jeopardy to future participation in other studies conducted by us.

Confidentiality

All data obtained from you will be kept confidential and will only be reported in an aggregate format (by reporting only combined results and never reporting individual ones). All questionnaires will be concealed, and no one other than the primary investigator will have access to them. The data collected will be stored in the HIPPA-compliant, Qualtrics-secure database until it has been deleted by us.

Verification

At the end of this survey, you will be given a completion code. You will need to copy this code to the survey code field on the AMT web page that directed you here at the beginning.

Questions about the Research

If you have questions regarding this study, you may contact

thechoicelab@nhh.no

I have read and understood the above consent form and desire to participate in this study. o Yes
o No

Part 2 – Determination of bonus payment (matched-pair treatment)

You have now completed your work on the survey. We will now explain how your bonus for this work will be paid.

After you have completed this HIT, we will for each assignment match you with another participant who also has completed the same assignment. The payments to you and the other participant is determined by a two-stage process. Below we explain this process in more detail.

First stage:

First, we would like to know which of the two payment schemes you prefer:

Option A: By a lottery where with equal probabilities one of you are paid 5 USD and the other is paid 1 USD for the assignment.

Option B: Both of you are paid 2 USD for the assignment.

With a given probability, your choice will determine how the two of you are paid.

I prefer:

☐ Option A

☐ Option B

We will ask the participant you are paired with to make the same choice and with a given probability, the choice of the other participant will determine how the two of you are paid.

Second stage:

If neither your choice nor the choice of the other participant is chosen to determine payments, we will ask a third party to determine the payment to the two of you.

You will receive your payment for the assignment within three weeks and it will be paid separately from your fixed participation fee of 1 USD.

Please click >> to continue.

Part 2 – Determination of bonus payment (individual treatment)

You have now completed your work on the survey. We will now explain how your bonus for this work will be paid.

The bonus payment to you is determined by a two-stage process. Below we explain this process in more detail.

First stage:

First, we would like to know which of the two payment schemes you prefer:

Option A: By a lottery where with equal probabilities you are paid 5 USD or you are paid 1 USD for the assignment.

Option B: You are paid 2 USD for the assignment.

With a given probability, your choice will determine how you are paid.

I prefer:

☐ Option A

☐ Option B

Second stage:

If your choice is not chosen to determine the payment, we will ask a third party to determine the payment to you.

You will receive your payment for the assignment within three weeks and it will be paid separately from your fixed participation fee of 1 USD.

A.2 Norstat Experiment

Translated from Norwegian.

Treatment 1 - Matched-pair

We will now ask you to make a choice that can have consequences for a real situation. We will randomly draw every tenth respondent and implement the choice he or she has made. A few days ago two workers, A and B, were recruited from Amazon Mechanical Turk to participate in a study. They were each paid 1 USD for participating, but were also able to earn more during the study.

In the study, the two participants were asked to complete a task. After the task was completed the participants were asked which of the two following payments schemes they preferred:

- I: By a random draw it will be decided that one of the two will receive 5 USD for the task and one will receive 1 USD for the task.
- II: Both will be paid 2 USD for the task.

The participants were informed that their answers with a certain probability would be drawn to determine the payment between them. Alternatively, it would be determined by a third party.

Both participants answered that they preferred I, but their answer was not drawn to determine the payment - the payment will therefore be determined by a third party.

You are this third party, and we now want you to choose how the two participants will be paid. The participants will be paid according to what you decide within three weeks. You can choose between:

- I: By a random draw it will be decided that one of the two will receive 5 USD for the task and one will receive 1 USD for the task.
- II: Both will be paid 2 USD for the task.

I choose: I or II (no other answers allowed)

Treatment 2 - Individual

We will now ask you to make a choice that can have consequences for a real situation. We will randomly draw every tenth respondent and implement the choice he or she has made. A few days ago a worker was recruited from Amazon Mechanical Turk to participate in a study. The worker was paid 1 USD for participating, but was also able to earn more during the study.

In the study, the participant was asked to complete a task. After the task was completed the participant was asked which of the two following payments schemes he or she preferred:

- I: By a random draw it will be decided that the participant, with equal probabilities, will be paid either 5 USD for the task or 1 USD for the task.
- II: The participant will be paid 2 USD for the task. ^[1]_{SEP}

The participant was informed that their answer with a certain probability would be drawn to determine the payment. Alternatively, it would be determined by a third party.

The participant answered that he or she preferred I, but their answer was not drawn to determine the payment - the payment will therefore be determined by a third party. ^[1]_{SEP}

You are this third party, and we now want you to choose how the participant will be paid. The participant will be paid according to what you decide within three weeks. You can choose between:

- I: By a random draw with equal probability it will be decided that the participant will either receive 5 USD or 1 USD for the task.
- II: The participant will be paid 2 USD for the task. ^[1]_{SEP}

I choose: I or II (no other answers allowed)

Questions following the distribution choice

To what extent do you agree or disagree with the following statements:
(0=highly disagree 10=highly agree)

Society should aim at equalizing income distribution

0/1/2/3/4/5/6/7/8/9/10/Do not know

Society should aim at securing individual freedom in economic choices

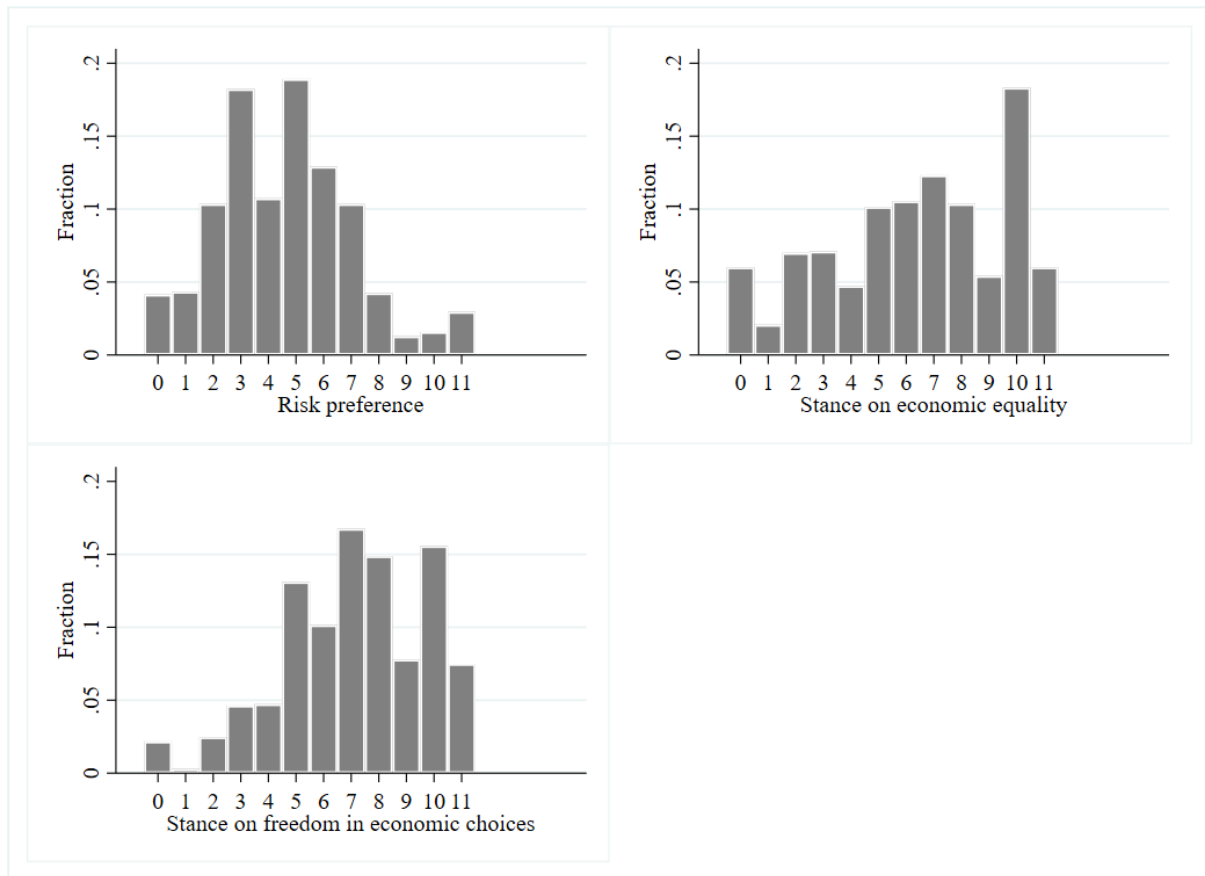
0/1/2/3/4/5/6/7/8/9/10/Do not know

How do you see yourself: are you generally a person who is fully prepared to take risks or do you try to avoid taking risks?

(0=not at all willing to take risks 10=very willing to take risks)

0/1/2/3/4/5/6/7/8/9/10/Do not know

A.3 Distribution of Responses Regarding Preferences and Attitudes



A.4 Explanation of Bonus Payment

Individual treatment: Lottery preference - spectator chose fixed payment

Regarding your bonus payment: You chose option A, but your choice was not chosen to determine how you are paid. A third party determined the payment to you, and chose option B. You will therefore receive a bonus payment of 2 USD.

Individual treatment: Lottery preference - spectator chose lottery

Regarding your bonus payment: You chose option A, but your choice was not chosen to determine how you are paid. A third party determined the payment to you, and also chose option A. By a lottery it was determined that you will receive a bonus payment of 1 USD.

Regarding your bonus payment: You chose option A, but your choice was not chosen to determine how you are paid. A third party determined the payment to you, and also chose option A. By a lottery it was determined that you will receive a bonus payment of 5 USD.

Individual treatment: Lottery preference - not matched with spectator

Regarding your bonus payment: You chose option A, and your choice was chosen to determine how you are paid. By a lottery it was determined that you will receive a bonus payment of 1 USD.

Regarding your bonus payment: You chose option A, and your choice was chosen to determine how you are paid. By a lottery it was determined that you will receive a bonus payment of 5 USD.

Individual treatment: Fixed payment preference

Regarding your bonus payment: Your choice was chosen to determine how you are paid. You chose option B and will therefore receive a bonus payment of 2 USD.

Matched-pair treatment: Lottery preference - spectator chose fixed payment

Regarding your bonus payment: Both you and the participant you were matched with chose option A, but your choice was not chosen to determine the bonus. A third party determined the bonus and chose option B. You will therefore receive a bonus payment of 2 USD.

Matched-pair treatment: Lottery preference - spectator chose lottery

Regarding your bonus payment: Both you and the participant you were matched with chose option A, but your choice was not chosen to determine the bonus. A third party determined the bonus and also chose option A. By a lottery it was determined that you will receive a bonus payment of 1 USD.

Regarding your bonus payment: Both you and the participant you were matched with chose option A, but your choice was not chosen to determine the bonus. A third party determined the bonus and also chose option A. By a lottery it was determined that you will receive a bonus payment of 5 USD.

Matched-paired treatment: Not matched with spectator

Regarding your bonus payment: Your choice was chosen to determine how the bonus. You chose option A. By a lottery it was determined that you will receive a bonus payment of 1 USD.

Regarding your bonus payment: Your choice was chosen to determine how the bonus. You chose option A. By a lottery it was determined that you will receive a bonus payment of 5 USD.

Matched-pair treatment: Fixed payment preference

Regarding your bonus payment: Both you and the participant you were matched with chose option B, and your choice was chosen to determine the bonus. You will therefore receive a bonus payment of 2 USD.

A.5 Dummy Variables

In order to perform the desired statistical analyses, we found it advisable to create dummy variables for the different characteristics we wanted to test, as the raw data from Norstat contained several categorical variables that were nominal or ordinal.

Variable name	0	1
Fixed payment	Choice of the lottery (adhering to the preference of the worker(s))	Choice of the fixed payment
Treatment	Spectator assigned to matched-pair treatment	Spectator assigned to individual treatment
Female	Male	Female
Over 50	Over the mean age of 50 years	Under the mean age of 50 years
College	Education level below a bachelor's degree	Education level equivalent of a bachelor's degree or higher
High income	Household income below average	Household income above average
Risk averse ¹⁰	Reported 6 or higher on a question regarding their general risk preference (scale 1 - 10)	Reported 5 or lower
Pro economic equality	Reported 6 (mean = 6) or lower on a claim regarding economic equality	Reported 7 or higher
Pro economic freedom	Reported 6 (mean = 6.7) or lower on a claim regarding freedom in economic choices	Reported 7 or higher
Right-wing	Did not vote for one of the two right-wing parties, the Conservative party (Høyre) or the Progress party (Frp) in the general election in September 2017	Voted for the Conservative party (Høyre) or the Progress party (Frp) in the general election

¹⁰ The cutoff value is based on the categorization in Dohmen et al. (2011), from which we also gathered the question about risk preference.

A.6 Probit Analyses of Main Effects

Table A.1: Probit - Effect of demographic variables on choice in the matched-pair treatment

	(1) Fixed payment	(2) Fixed payment	(3) Fixed payment	(4) Fixed payment	(5) Fixed payment
Female	0.113** (0.039)				0.117** (0.037)
Over 50 years		0.145*** (0.039)			0.146*** (0.037)
College			-0.116** (0.042)		-0.101* (0.041)
High income				-0.056 (0.040)	-0.031 (0.039)
Observations	506	506	506	506	506

Note: The table reports marginal effects of probit regressions of spectator choice on a set of explanatory variables. 'Fixed payment' is the dependent variable taking the value one if the spectator opts against the workers' preference and chooses the fixed bonus payment. Independent variables include: 'Female', a dummy for the spectator being female. 'Over 50', a dummy equal to one if the spectator's age is above the mean of 50. 'College', a dummy equal to one if the spectator has an education level equivalent of a bachelor's degree or higher. 'High income', a dummy equal to one if the spectator's household income is above the mean. Standard errors in parentheses,
 * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table A.2: Probit - Effect of preferences and attitudes in the matched-pair treatment

	(1) Fixed payment	(2) Fixed payment	(3) Fixed payment	(4) Fixed payment	(5) Fixed payment
Risk averse	0.023 (0.042)				0.027 (0.042)
Pro economic equality		0.118** (0.040)			0.110** (0.042)
Pro economic freedom			-0.012 (0.040)		0.005 (0.042)
Right-wing				-0.063 (0.042)	-0.030 (0.045)
Background variables	Yes	Yes	Yes	Yes	Yes
Observations	506	506	506	506	506

Note: The table reports marginal effects from probit regressions of spectator choice on a set of explanatory variables. 'Fixed payment' is the dependent variable taking the value one if the spectator opts against the workers' preference and chooses the fixed bonus payment. Independent variables include: 'Risk averse', a dummy equal to one if the spectator reports 5 or below (scale 0-10) regarding their willingness to take risks in general. 'Pro economic equality', a dummy equal to one if the spectator self-reports above the mean (6) on how much they agree that society should aim at equalizing income distribution. 'Pro economic freedom' is a dummy equal to one if the spectator self-reports above the mean (6.7) on how much they agree that society should aim at securing individual freedom in economic choices. 'Right-wing' is a dummy equal to one if the spectator voted for either the Conservative Party (H) or the Progress Party (Frp) in the general election in September 2017. Background variables include 'Female', 'College', 'Over 50', and 'High income'. Standard errors in parentheses, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

Table A.3: Probit – Effect of demographic variables on choice in the individual treatment

	(1)	(2)	(3)	(4)	(5)
	Fixed payment	Fixed payment	Fixed payment	Fixed payment	Fixed payment
Female	0.073 (0.044)				0.072 (0.043)
Over 50 years		0.118** (0.044)			0.109* (0.042)
College			-0.127** (0.046)		-0.118** (0.045)
High income				-0.002 (0.046)	0.022 (0.046)
Observations	509	509	509	509	509

Note: The table reports marginal effects of from probit regressions of spectator choice on a set of explanatory variables. 'Fixed payment' is the dependent variable taking the value one if the spectator opts against the workers' preference and chooses the fixed bonus payment. Independent variables include: 'Female', a dummy for the spectator being female. 'Over 50', a dummy equal to one if the spectator's age is above the mean of 50. 'College', a dummy equal to one if the spectator has an education level equivalent of a bachelor's degree or higher. 'High income', a dummy equal to one if the spectator's household income is above the mean. Standard errors in parentheses, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

Table A.4: Probit - Effect of preferences and attitudes in the individual treatment

	(1)	(2)	(3)	(4)	(5)
	Fixed payment	Fixed payment	Fixed payment	Fixed payment	Fixed payment
Risk averse	0.023 (0.042)				0.027 (0.042)
Pro economic equality		0.118** (0.040)			0.110** (0.042)
Pro economic freedom			-0.012 (0.040)		0.005 (0.042)
Right-wing				-0.063 (0.042)	-0.030 (0.045)
Background variables	Yes	Yes	Yes	Yes	Yes
Observations	506	506	506	506	506

Note: The table reports marginal effects from probit regressions of spectator choice on a set of explanatory variables. 'Fixed payment' is the dependent variable taking the value one if the spectator opts against the workers' preference and chooses the fixed bonus payment. Independent variables include: 'Risk averse', a dummy equal to one if the spectator reports 5 or below (scale 0-10) regarding their willingness to take risks in general. 'Pro economic equality', a dummy equal to one if the spectator self-reports above the mean (6) on how much they agree that society should aim at equalizing income distribution. 'Pro economic freedom' is a dummy equal to one if the spectator self-reports above the mean (6.7) on how much they agree that society should aim at securing individual freedom in economic choices. 'Right-wing' is a dummy equal to one if the spectator voted for either the Conservative Party (H) or the Progress Party (Frp) in the general election in September 2017. Background variables include 'Female', 'College', 'Over 50', and 'High income'. Standard errors in parentheses, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

A.7 Interaction Effect: Younger and College Educated

Table A.5: Interaction effect – 50 years or younger with college education

	(1) Fixed payment	(2) Fixed payment	(3) Fixed payment	(4) Fixed payment
50 years or younger	-0.145*** (0.039)			-0.040 (0.064)
College		-0.112** (0.041)		-0.017 (0.056)
50 or under x College			-0.204*** (0.041)	-0.170* (0.080)
Female				0.121** (0.039)
High income				-0.026 (0.040)
Constant	0.805*** (0.027)	0.804*** (0.032)	0.799*** (0.023)	0.765*** (0.051)
Observations	506	506	506	506
R^2	0.027	0.015	0.046	0.068

Note: The table reports results from OLS regressions of spectator choice on a set of explanatory variables. 'Fixed payment' is the dependent variable taking the value one if the spectator opts against the workers' preference and chooses the fixed bonus payment. Independent variables include: 'Female', a dummy for the spectator being female. 'Over 50', a dummy equal to one if the spectator's age is above the mean of 50. 'College', a dummy equal to one if the spectator has an education level equivalent of a bachelor's degree or higher. 'High income', a dummy equal to one if the spectator's household income is above the mean. '50 or under + College' is an interaction variable for being 50 or under and having a college degree. Standard errors in parentheses, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

A.8 Robustness Test

Table A.6: Robustness test: The effect of the treatment, preferences, and attitudes

	(1)	(2)	(3)	(4)
	Fixed payment	Fixed payment	Fixed payment	Fixed payment
Individual treatment	-0.159*** (0.030)	-0.158*** (0.030)	-0.157*** (0.030)	-0.160*** (0.029)
Risk averse	0.100** (0.032)			0.098** (0.032)
Pro economic equality		0.086** (0.030)		0.084** (0.030)
Pro economic freedom			-0.028 (0.030)	-0.010 (0.030)
Constant	0.638*** (0.042)	0.654*** (0.041)	0.714*** (0.042)	0.604*** (0.050)
Background variables	Yes	Yes	Yes	Yes
Observations	968	968	968	968
R^2	0.077	0.075	0.068	0.085

Note: The table reports results from OLS regressions of spectator choice on a set of explanatory variables. 'Fixed payment' is the dependent variable taking the value one if the spectator opts against the workers' preference and chooses the fixed bonus payment. Independent variables include: 'Risk averse', a dummy equal to one if the spectator reports 5 or below (scale 0-10) regarding their willingness to take risks in general. 'Pro economic equality', a dummy equal to one if the spectator self-reports above the mean (6) on how much they agree that society should aim at equalizing income distribution. 'Pro economic freedom' is a dummy equal to one if the spectator self-reports above the mean (6.7) on how much they agree that society should aim at securing individual freedom in economic choices. Background variables include 'Female', 'College', 'Over 50', and 'High income'. Standard errors in parentheses, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

A.9 Treatment Effect with Demographic Variables

Table A.7: Treatment effect with demographic variables, preferences, and attitudes

	(1) Fixed payment	(2) Fixed payment	(3) Fixed payment	(4) Fixed payment	(5) Fixed payment	(6) Fixed payment	(7) Fixed payment	(8) Fixed payment	(9) Fixed payment	(10) Fixed payment
Individual treatment	-0.154 ^{***} (0.029)	-0.153 ^{***} (0.029)	-0.149 ^{***} (0.029)	-0.155 ^{***} (0.029)	-0.155 ^{***} (0.030)	-0.155 ^{***} (0.029)	-0.154 ^{***} (0.029)	-0.154 ^{***} (0.029)	-0.157 ^{***} (0.029)	-0.153 ^{***} (0.029)
Female		0.093 ^{**} (0.029)								0.074 [*] (0.029)
Over 50 years			0.131 ^{***} (0.029)							0.120 ^{***} (0.029)
College				-0.118 ^{***} (0.030)						-0.104 ^{***} (0.030)
High income					-0.030 (0.031)					0.005 (0.031)
Risk averse						0.126 ^{***} (0.031)				0.089 ^{**} (0.031)
Pro economic equality							0.091 ^{**} (0.029)			0.068 [*] (0.031)
Pro economic freedom								-0.034 (0.030)		-0.012 (0.030)
Right-wing									-0.060 (0.032)	-0.032 (0.034)
Constant	0.733 ^{***} (0.021)	0.684 ^{***} (0.026)	0.667 ^{***} (0.025)	0.809 ^{***} (0.028)	0.745 ^{***} (0.024)	0.650 ^{***} (0.029)	0.691 ^{***} (0.025)	0.752 ^{***} (0.027)	0.754 ^{***} (0.024)	0.625 ^{***} (0.049)
Observations	1015	1015	1015	1015	1015	1015	1015	1015	1015	1015
R ²	0.026	0.036	0.045	0.041	0.027	0.042	0.035	0.027	0.030	0.084

Note: The table reports results from OLS regressions on spectator choice on a set of explanatory variables. Dependent variable is 'Fixed payment' an indicator variable taking the value one if the spectator chooses the fixed bonus payment for the worker(s). Independent variables include: Individual treatment', a dummy equal to one for spectators in this treatment. 'Female', a dummy for the spectator being female. 'Over 50', a dummy equal to one if the spectator's age is above the mean of 50. 'College', a dummy equal to one if the spectator has an education level equivalent of a bachelor's degree or higher. 'High income', a dummy equal to one if the spectator's household income is over the mean. Other characteristics include: 'Risk averse', 'Pro economic equality', 'Pro economic freedom', 'Right-wing'. Standard errors in parentheses. * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

A.10 Interaction Effect: Right-Wing Including the Liberal Party

Table A.8: Interaction effect – right-wing including the Liberal Party (V)

	(1)	(2)	(3)
	Fixed payment	Fixed payment	Fixed payment
Individual treatment	-0.159*** (0.029)	-0.146*** (0.036)	-0.155*** (0.029)
Right-wing, incl the Liberal Party	-0.085** (0.031)	-0.073 (0.042)	
Right-wing, incl Liberal party x Individual treatment		-0.025 (0.060)	
Conservative party (Høyre)			-0.086* (0.037)
Progress party (Frp)			-0.056 (0.047)
Liberal party (Venstre)			-0.154* (0.071)
Constant	0.767*** (0.024)	0.720*** (0.041)	0.724*** (0.039)
Background variables	No	Yes	Yes
Observations	1015	1015	1015
R ²	0.034	0.075	0.076

Note: The table reports results from OLS regressions of spectator choice on a set of explanatory variables. 'Fixed payment' is the dependent variable taking the value one if the spectator opts against the workers' preference and chooses the fixed bonus payment. Independent variables include: 'Individual treatment', a dummy equal to one for spectators in this treatment. 'Right-wing, incl the Liberal Party' is a dummy equal to one if the spectator voted for either the right-wing parties the Conservative Party (H) or the Progress Party (Frp) or the Liberal Party (V) in the general election in September 2017. 'Right-wing, incl the Liberal Party x Individual treatment', a dummy equal to one for right-wing, incl Liberal party spectators in the individual treatment. Background variables include 'Female', 'College', 'Over 50', and 'High income'. Standard errors in parentheses, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.