Don’t patronize me! An Experiment on Rejecting Paternalistic Help

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An Experiment on Rejecting Paternalistic Help

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Abstract
We examine whether individuals are willing to pay in order to reject unrequired help—even if doing so does not help them to control the outcome. We find that about a third of subjects reject. This share is economically important and significantly different from some error benchmark. Our design also allows to distinguish between different reasons why help may be rejected: the individual may signal autonomy or competence to the interfering party (paternalist) or preserve self-esteem. Tentative evidence suggests that all three reasons matter. In particular, 14% of subjects reject paternalistic help even if rejection cannot be used as a signal to the paternalist at all.

Keywords: self-esteem, image concerns, autonomy, competence, paternalism, self-determination

JEL-Codes: C91, D82, D91

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1 Introduction

Anecdotal evidence suggests that children often reject unasked-for help. Consider a daughter who refuses the cereal fixed by her father. Instead of being grateful, the daughter reacts with frustration and insists on preparing the exact same cereal for herself. This paternalistic help causes no material harm to the child but is unrequired and unnecessary because the child would have been able to solve the problem alone. Since the paternalist incurs costs when helping and the child when rejecting help, not offering the unrequired help is better in the sense of a Pareto-improvement. If there is evidence for rejected paternalistic help in adults, there is thus the potential for improving the situation for everyone, especially in companies or organizations where help is offered with the best intentions. Such evidence would also provide a basis for one channel on how the ‘ego’ can interfere with business decisions, a notion put forward by leadership gurus.\(^1\)

Providing clean evidence on whether paternalistic help is rejected is difficult with observational data. Precisely because it looks childish, adult agents (managers, employees, etc.) have an incentive to mask this ‘childish’ behavior by pretending that there are substantial differences between the rejected help and what they eventually did. Moreover, by rejecting help in real-life, agents typically retain control over the outcome. Retaining control may be perfectly sensible and indicated in the situation and it thus hard to classify the rejection as ego- or image-driven.

This paper examines whether adults reject paternalistic help with a controlled experiment. The design allows us to provide the first clean evidence that help is rejected even if the agent cannot better control the outcome by doing so. We find that about a third of subjects rejects paternalistic help. This rejection rate is significantly different from an error rate that we measure by confronting subjects with a very similar decision and counting how many of them choose an equally expensive but nonsensical option.

The design also allows to explore the reasons why help is rejected. Starting with the self-determination theory by Deci (1971), psychologists have postulated that individuals want to perceive themselves as autonomous. In economics, Bénabou and Tirole (2002, 2003) formalize this idea with the theory of self-signaling. An economic agent might reject paternalistic help to prove to herself that she is autonomous and maintain her self-esteem. If this is the reason, then giving more discretion to the employee might solve the problem. Bénabou and Tirole (2002) also suggest that economic agents benefit from signaling autonomy. An agent might thus reject paternalistic help to signal her autonomy to the paternalist. Given

\(^1\)For an example, see Scott and Ken Blanchard argument to not ‘let your ego hijack your leadership effectiveness’ in a Fast Company article (June 22, 2012). Retrieved on the May, 31st 2018 from URL: https://www.fastcompany.com/1840932/dont-let-your-ego-hijack-your-leadership-effectiveness.
this problem, it is not enough to give the agent more freedom but also necessary to
acknowledge the agent’s independence, e.g. by a more participatory management
style. Finally, help may rob the agent of an opportunity to show her competence.
In this case, finding other ways for employees to express their competence may
prevent unnecessary rejection. The remedy that an organization can use to deal
with the ego- or image-driven individual thus crucially depends on the motive for
the rejection.

The design also allows to cleanly separate the motives. This part of the paper,
however, remains exploratory: the number of observations is too low to make any
statistically claims. While we cannot reject that the data is caused by randomness
or have the sufficient power to confidently claim that the data is caused by ran-
donness, the results perfectly fit predictions and are economically sizable. Around
14% reject paternalistic help even if rejection can neither signal competence nor
autonomy. Starting from this sparse treatment, the possibility to signal autonomy
is associated with a 35% increase in rejections, while that to signal competence
involves another 50% increase. Altogether, the share of rejections doubles when
rejection can signal both, competence or autonomy.

The findings are based on an experimental design in which subjects are matched
in pairs. One person takes on the role of the agent and the other of the paternalist.
The agent’s competence is her ability to solve a logical puzzle. Without knowing
whether the agent is able to solve the puzzle, the subject in the role of paternalist
has to decide whether to invest a small fee to help the agent and provide the
correct solution to the puzzle. The agent can then accept this help and submit the
paternalist’s solution or incur a cost and submit her own solution. We let the subject
in the role of the agent derive this solution before she knows whether she will be
helped. This ensures that the subject is aware of her competence when deciding
whether to reject help. The agent earns a sizable bonus if a correct solution is
submitted. This bonus is the respective subject’s main source of income in the
experiment, which gives her a strong incentive not to rely on the paternalist but to
solve the puzzle herself. For the paternalist, we induce a motive to help by also
giving a small bonus.

The design separates the wish to preserve self-esteem from the desire to signal
autonomy or competence by systematically varying the information available to
the subject in the role of the paternalist. In our R treatment, the paternalist only
learns whether the agent rejected help or not. In this treatment, rejection can be
used for all three reasons: as a signal of competence or autonomy or to preserve
self-esteem. In our RC treatment, the paternalist learns whether the agent rejected
help and whether the agent’s solution was correct. Moving from R to RC treatment
removes the opportunity to signal competence. Finally, in the C treatment, the
paternalist only learns whether the puzzle was solved correctly but not whether
the agent rejected help. (The design ensures that the paternalist cannot deduce
this from his payoff either.) Since rejection is not observed by the paternalist, it cannot be used as a signal to the paternalist at all. Rejection can thus only serve to maintain self-esteem (or for some other internal motive) in this treatment.

Our paper is related to the notion that people may want to maintain control or prevent others from controlling them. The motives that we examine, however, are different from those typically studied. In a series of experiments, economic agents gain from deciding themselves rather than delegating the decision (Fehr et al., 2013; Dominguez-Martinez et al., 2014; Bobadilla-Suarez et al., 2017). Neri and Rommeswinkel (2014) show that subjects are interference-averse in the sense that they prefer others not to affect their payoff. In all these experiments, subjects actually materially gain from maintaining control or preventing interference. The motives present in this literature are eliminated in our design: the agent has no material gains but only losses from rejecting help. Owens et al. (2014) as well as Bartling et al. (2014) identify that the desire to control is valued, even if it does not lead to higher payoffs. In contrast, the agent’s payoff is fixed after rejecting interference in our design and hence cannot be controlled by the agent.

Probably, the closest paper to ours is Sloof and von Siemens (2017). In their experiment, subjects pay for being able to decide which of two identical lotteries is played rather than letting another (equally bad informed) subject choose. They argue convincingly that the reason is that subjects believe that they can affect the outcome of the lottery in their favor with the meaningless choice. This ‘illusion of control’ motive is eliminated in our experimental design because after rejecting interference, subjects face no choice (not even a meaningless one) and hence cannot believe that this choice affects the outcome in their favor. Moreover, apart from the possible costs of rejection, the payoff is fixed and known even before rejection. In summary, in contrast to the literature our design is strapped of any control whether real or illusory. Subjects might still reject help because they want to signal their competence or their autonomy or perhaps to preserve their self-esteem. Whether these motives are present is studied here for the first time.

The remaining of the paper is organized as follows: the design of the experiment is presented in Section 2. Section 3 derives the predictions. In Section 4, the experimental procedure and descriptive statistics are described followed by the results in Section 5. Section 6 concludes.

2 Experimental Design

Consider a paternalist (here: he) who can help an economic agent (here: she) at some costs. The agent can reject this help. Doing so, she incurs costs but has no material gain. The experimental design tries to capture such a situation, while maintaining a maximum of control on possible motives of the agent. We pair
subjects and assign them the role of paternalist and agent. In the experiment, these roles were more neutrally framed as ‘observer’ and ‘decision maker’ in order to avoid demand effects purely on the basis of the word ‘paternalist’. The main task lies with the agent who is given a logical puzzle and asked to find the solution.

We exclude any conflict of interest in the material payoffs by paying both, paternalist and agent, a bonus in case that a correct solution to the logical puzzle is submitted. This bonus amounts to 4 € for the agent and 2.50 € for the paternalist. The agent is thus the main stake holder and cares most about the correct solution being submitted. In order to further strengthen that it is the agent’s task to ensure the correct solution, we give the subject in the role of the agent an endowment of only 2 €, while the paternalist’s endowment is 5 €. For the agent, the bonus payment is hence a substantial part of her overall payout. On the other hand, the paternalist is already relatively comfortably endowed. This further strengthens his role as the ‘observer’ who may or may not get involved.

i. Logical puzzle

The logical puzzle is designed in such a way that it appears difficult at first sight but actually is easy to solve. We wanted a maximal number of correct answers because we are interested in subjects who receive help but actually do not need this help. The task should not appear too simple because we want the paternalist to be uncertain about the agent’s ability to find the correct solution—for the puzzle text, see Appendix. The first stage ends when all agents have submitted a proposal for a solution to the puzzle.

ii. Paternalist’s decision to help

Without knowing this proposal or whether it is correct, the paternalist can replace the proposal at the cost of 0.50 € with the correct solution. The costs of help are only borne by the paternalist; the agent does not lose out materially from being helped.

If the paternalist knew that the agent’s solution were correct, helping would generate no benefit. Since it does entail costs, he would not help in this case. If he knew the agent’s solution to be wrong, helping would generate 2.50 € at the price of 0.50 € and help would be payoff-maximizing for the paternalist. Since the paternalist does not know whether the agent’s solution is correct, helping is only rational for the paternalist if he has sufficient doubts about the agent’s ability to solve the task correctly. Being helped can thus indicate to the agent that the paternalist lacks confidence in the agent’s competence.
Figure 1: Illustration of decision process
iii. Agent’s decision to reject help

In the second and last stage, the agent can reject the paternalist’s help. In particular, the agent can incur costs of 0.10 € in order to ensure that her solution rather than the correct solution of the paternalist is used to determine whether she gets the bonus payment. Accepting help, however, is for free and the agent receives the bonus irrespective of the correctness of her solution.

In order to maintain more control, we remove any uncertainty that the subject in the role of the agent might have about her own ability. This is why we inform agents whether their solution was correct before they have to decide on whether to reject help. The rejection decision hence becomes independent from the agent’s risk preferences.

In principle, the agent might reject help to punish the paternalist, e.g., for not trusting in her competence. We eliminate this reason by not allowing rejection to affect the paternalist’s payoff: a helping paternalist gets his bonus regardless of whether the agent rejected this help or not.

Since we are interested in studying the rejection of help by individuals who do not need this help, our analysis has to be restricted to subjects who correctly solved the logical puzzle. Since not every subject can be expected to solve the puzzle, we had to ensure that we observe rejection decisions for sufficiently many of these subjects without making the puzzle easier and hence less meaningful. We meet this challenge by a specific order of moves in combination with holding back information and employing the strategy method.

First, the paternalist has to choose whether to help or not without knowing whether the agent’s solution is correct. Had the paternalist known the correctness of the agent’s solution before deciding to help, help would probably only have been received by agents with the wrong solution. Consequently, we would have observed only very few or even no subjects receiving unnecessary help.

Second, the agent’s decision is elicited using the strategy method. More precisely, the agent is asked whether she wants to reject the paternalist’s help before she learns whether the paternalist actually helped. If the paternalist helps, the decision to reject or accept this help determines the agent’s actual payoff. If the paternalist does not help, the agent’s decision is ignored. We can thus observe the decision to reject help from any subject that has correctly solved the logical puzzle.

The strategy method can in principle be criticized for creating a demand effect by suggesting to the agent to act differently under different contingencies. Notice that this criticism does not apply here. Since the agent only faces one contingency namely ‘being helped’; subjects never have to decide or even contemplate what they would have done had the paternalist not helped. The task appears difficult at first sight and the agent has experienced this difficulty herself in the initial stages of trying to solve the puzzle. The event that the paternalist helps is thus not unlikely.
from the agent’s perspective. The appearance of the task thus increases salience of the rejection decision.

Third, the paternalist’s decision to help follows the agent’s decision whether to put effort into solving the logical puzzle. Suppose, the paternalist could decide to help before the agent were given the opportunity to solve the puzzle. Then, even capable agents who are being helped may be discouraged and put in little or no effort to solve the puzzle. This would have resulted in very few or no agents who have correctly solved the puzzle.

3 Predictions

We want to study whether people reject unnecessary paternalistic help. Accordingly, a key statistic will be how many of the subjects in the role of agent reject help. The share of rejecting agents then needs to be compared to some suitable benchmark. First, we will establish this benchmark. Then, we introduce our first treatment and predict that subjects who have preferences over material outcomes do not reject help. Next, we draw on the psychological and economical literature and bring forward three motives why subjects might reject help. Finally, we introduce two more treatments to tease out which motive can best explain why subjects reject if they reject.

3.1 Error rate: a benchmark for the rejection rate

If our null hypothesis is that help is not rejected, a single rejection of help suffices to refute this null hypothesis. In other words, any rejection rate different from zero would be significant. Even though, we aim to minimize error by giving clear instructions, control questions, and transparent screen layouts, it seems heroic to assume that all subjects always fully understand the consequences of their actions and are free from mistakes. More plausibly, some share, say $\gamma$, of subjects errs. Then, one could say that a statistically significant share of agents rejects help if this share is significantly different from the error rate $\gamma$.

But what is an adequate value for $\gamma$? If we as authors set $\gamma$ to a particular level, say 1%, we might expose ourselves to the criticism of having chosen this level after knowing the data. Rather than setting the value, we obtain an estimate from the data. For the second half of our sessions, we added a respective feature to our design. We give subjects the choice between two options that seemingly differ in terms of the denomination of coins in which they receive their payoff. The two payoff options are presented as two lists and are actually perfectly identical—only the ordering of entries in the list differs. The first option is for free, the second option is priced at 0.10 €. The costs and location on the screen are exactly identical
to the choice of rejecting help (compare the screen shots in Figure 3 and Figure 4 in the Appendix). Monetary benefits from the costly option are the same as in the case of rejecting help: there are none. If a subject chooses the costly second option, she would get the same payoff as under the first option minus the costs of 0.10 €. By examining the answers, we can thus determine how many subjects are willing to ‘pay for nothing’, which gives us the desired estimate of an error rate.

The estimated error rate serves as an upper bound because it is likely to be inflated for several reasons. First, the complexity of the decision is possibly larger because subjects have to take in more numbers on the decision screen than when deciding whether to reject. Second, the decision about the denomination of coins is at the end of the experiment, where subjects may be more tired and error prone. Third, while subjects were prepared for the consequences of the decision to reject help in the instructions, the decision in which coins they want their payout comes as a surprise. Finally, the measured error rate is based on all subjects including those who were not able to solve the logical puzzle and are perhaps more prone to error than those who correctly solved the puzzle.

3.2 Prediction for outcome-oriented subjects

Treatments differ in what paternalists learn about rejection and the correctness of the agent’s solution after the agent’s rejection decision. In our first treatment, the R treatment, a helping paternalist only learns whether the agent rejected help but not whether the agent’s solution to the puzzle was correct. In this treatment, a purely money-maximizing agent will not reject help even if her solution to the logical puzzle is correct. Doing so would lead to monetary costs without generating a monetary benefit. Standard reciprocity theories (Rabin, 1993; Charness and Rabin, 2002; Dufwenberg and Kirchsteiger, 2004; Falk and Fischbacher, 2006) also predict no rejection because the agent’s rejection decision does not affect the paternalist’s payoff; the agent can thus not punish or reward the paternalist even if she wanted to. An agent with fairness preferences in the sense of Fehr and Schmidt (1999) does not reject help either. Whether the agent rejects or not, the paternalist always has a higher monetary payoff. Since rejecting help entails a cost to the agent, the payoff gap between paternalist and agent only widens. An envious agent would thus not reject help. Irrespective which of these preferences over material outcomes the agent has, she will not reject. Moreover, the agent also has no incentive to reject help in order to maintain control. Unlike in the above mentioned literature, the agent preserves no decision right by rejecting help: there is no decision that follows the rejection—not even a meaningless one. Any theory on maintaining control thus also predicts that the agent should not reject.

Hypothesis 1a. The rejection rate in the R treatment is smaller or equal to the
3.3 Behavioral reasons to reject help

There are various reasons why subjects might reject help in the R treatment. The reasons can be external in the sense that by rejecting, the subject wants to prove something to the paternalist. They can also be internal in the sense that the subject wants to prove something to herself. Psychologists have long been arguing that subjects want to perceive themselves as worthy. James (1890) introduces the notion of self-esteem as the comparison of a person’s achievement to her aspirations in domains that are of personal relevance to her and Maslow (1943) places self-esteem in his hierarchy of needs. Moreover, how an individual regards herself plays a crucial role in the motivational theory by Deci (1971) and self-determination theory by Deci and Ryan (1985). From an economic point of view, the idea of self-image can be formalized by an intra-personal game in which a decision maker wants to pass on an image to her future self (Bénabou and Tirole, 2002). Applying this view to our experimental design, the agent may want to see herself in the future as an autonomous being. Being offered help may reduce this value. Bénabou and Tirole (2003) argue that “help offered by others may be detrimental to one’s self-esteem and create a dependence” (p.492). Being offered help also devalues the own effort put into solving the puzzle and renders this effort meaningless—just as the destruction of the finished product rendered work meaningless in the experiment by Ariely et al. (2008). Frankl (1946, 1985), however, argues that humans seek meaning, also in their work. Rejecting help is costly but precisely because it is costly, it works as a signal to the future self that her solution to the puzzle was crucial and can thus thwart the threat to self-esteem and help preserve a positive self-image as an autonomous being.

Autonomy may not only be signaled to one-self but also to the outer world, in particular the paternalist. Maslow (1943) claims there is a need for esteem of others. Similarly, Bénabou and Tirole (2002) argue that there is not only an intrinsic value from a positive self-image but that this value may at least partly result from lower costs to signal such an image to others. The agent’s rejection may be a signal to the paternalist that the agent is not to be ‘tempered’ with. This makes sense if there is a future interaction between the two in which the agent benefits from not being tempered with by the paternalist. Recall that our design does not involve such future interaction. So rather than being concerned with the actual material advantage of being known as autonomous or strong-willed’ individual, the rejection must result from the more behavioral motive that subjects care about their image even in an anonymous one-shot situation. From Andreoni and Bernheim (2009), we know that subjects care about their image even in such settings. While they find that subjects are concerned about how fair they are perceived by others,
we would have to assume that this also extends to being wanted to be perceived as autonomous for subjects to reject help.

Finally and perhaps most directly, subjects may want to be perceived as competent. Rejection can work as a signal that the agent was able to solve the puzzle herself. This works because rejection is more costly for agents who were not able to solve the puzzle. Being perceived as competent is typically associated with benefits in real-life, e.g., because one gets assigned jobs with more responsibility and higher pay, etc. Again, such benefits are absent from our design but once more, the general advantage of being perceived as smart may lead to a behavioral trait that subjects want to signal their competence without any ulterior motive.

Whether it is the internal desire to maintain a positive self-image or the more external motives of signaling autonomy or competence, subjects may intentionally and not just erroneously reject help.

**Hypothesis 1b.** *In the R treatment, the rejection rate is larger than the error rate.*

### 3.4 Treatments and reasons to reject help

Our paper does not only want to examine whether subjects reject help, but also tries to disentangle why. One of the derived motives was that the agent uses rejection to signal her competence. In order to test whether this is the case, we use a new treatment, the RC treatment. This treatment is identical to the R treatment with the exception that we inform the paternalist whether the agent’s solution was correct. This treatment thus eliminates the opportunity to signal competence by rejection. If signaling the ability to solve the puzzle is a reason for rejection, the rejection rate should drop once rejecting no longer serves this purpose.

**Hypothesis 2.** *If subjects reject help to signal competence, the rejection rate in R treatment is higher than in the RC treatment.*

If the paternalist knows that the agent solved the puzzle correctly, rejection may still be used as a signal because the agent may care about being perceived as an autonomous being. At the price of 0.10 €, she can signal the paternalist that she is the one who has determined her bonus payment, not him—even though this bonus payment is paid in any case. Rejection cannot be used as a signal of autonomy if the paternalist does not learn whether the agent rejected help. Our third treatment, the C treatment, is identical to the RC treatment, but the paternalist does not know whether the agent rejected his help. By design, the paternalist’s payoff is independent from rejection, so he cannot infer from his payoff whether the agent rejected, either. When comparing the C with the RC treatment, the agent can thus no longer signal autonomy.
Hypothesis 3. If subjects reject help to signal autonomy, the rejection rate in RC treatment is higher than in the C treatment.

In the C treatment, the paternalist never learns whether the agent rejected help or not and the agent cannot use rejection as a signal. The C treatment is hence stripped off any of the external signaling motives that we have discussed above. The agent, however, may still reject to signal autonomy to herself, or equivalently, to preserve her self-esteem.

Hypothesis 4. If subjects reject help only to preserve self-esteem, the rejection rate in C treatment is higher than the error rate.

Table 1 gives an overview over the treatments and the three types of motives.

<table>
<thead>
<tr>
<th>paternlist receives</th>
<th>information about rejection</th>
<th>NO</th>
</tr>
</thead>
</table>
| information about correctness | YES | RC treatment: 
preserve self-esteem 
+ signal autonomy |
|                       | NO | C treatment: 
preserve self-esteem |
|                       |   | R treatment: 
preserve self-esteem 
+ signal autonomy 
+ signal competence |

Table 1: Motives in Treatments

4 Implementation and Descriptive Statistics

The experiment was run in the BaER-Lab at the University of Paderborn in March and May 2016. 12 sessions were conducted with each session being devoted to one of the three treatments. Every treatment was run 4 times. Six sessions were held in March 2016 and further six sessions in May 2016. The error benchmark "paying for nothing" was only elicited in May 2016. A session took between 48-61 minutes excluding the time needed to pay the participants. The experiment was computerized via z-Tree (Fischbacher, 2007). All students were recruited from the same subject pool via ORSEE (Greiner, 2015) and each subject only participated in one treatment.

In total, 244 students took part in the experiment. As subjects were matched in pairs, 122 students acted in the role of an agent. Recall that our analysis focuses on subjects who correctly solved the puzzle. Excluding all observations in which the
subject failed to solve the puzzle leaves us with a total number of 92 observations: 31 subjects participated in the R treatment, 32 in the RC treatment, 29 in the C treatment.

During the experiment, subjects received their payoffs in ECU which were converted into € (1 ECU = 5 cents) and paid out in cash immediately after each session, additional to a fixed show-up fee of 2.50 €. On average, participants received a total payoff of 8.49 €. Subjects were provided with a printed version of the instructions. Instructions consisted of a written part explaining the experiment in detail and a graphical part illustrating the sequence of the experiment in order to facilitate understanding (see Figures 5, 6 and 7 in the appendix). The instructions were identical for all subjects and differed across treatments but only with respect to the treatment variations.

Prior to the experiment, participants answered comprehension questions. We took extra time and care to ensure that subjects fully understand the consequences of their choices. Answering a comprehension question wrongly meant that the screen of the respective subject was blocked. The respective subject then had to call the experimenter for unblocking the screen. At this opportunity, the experimenter reviewed the relevant material for the answer with the subject without suggesting an answer. The experimenter then unblocked the screen and left the subject alone for the decision. If the answer was wrong again, the procedure started from the beginning. The experiment only started when all subjects had answered all questions correctly.

At the end of every session, subjects answered socio-demographic questions and questions concerning the experiment. Participants came from different study backgrounds: approximately 40% studied in the field of business administration and economics, 30% intended to get a teaching degree and the remaining participants were enrolled in different fields of study, such as engineering, cultural sciences, computer sciences and natural sciences. Overall, randomization worked well—see Table 2. The high share of females in the C treatment, however, could be a concern. Later in the analysis, we will check whether our results are driven by the over-representation of females in the C treatment.

5 Results

In this section, we study whether people are willing to incur costs for rejecting paternalistic help. More specifically, we investigate whether the rejection rate in

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2The difference in the share of females seems associated with the time of running the experiment. In May, where all of the C treatments were conducted, the share of females in the R and RC treatment (66% and 71%) is very similar to the that in the C treatment (75.86%).
Table 2: Summary Statistics

<table>
<thead>
<tr>
<th></th>
<th>C treatment</th>
<th>RC treatment</th>
<th>R treatment</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Observations (correct solution)</td>
<td>29</td>
<td>31</td>
<td>32</td>
<td>92</td>
</tr>
<tr>
<td>Female Participants (in %)</td>
<td>75.86</td>
<td>48.39</td>
<td>46.88</td>
<td>56.52</td>
</tr>
<tr>
<td>Business Students (in %)</td>
<td>48.28</td>
<td>38.71</td>
<td>34.38</td>
<td>40.22</td>
</tr>
<tr>
<td>Payoff in €</td>
<td>8.49</td>
<td>8.49</td>
<td>8.48</td>
<td>8.49</td>
</tr>
<tr>
<td>Age</td>
<td>23.48</td>
<td>24.68</td>
<td>23.16</td>
<td>23.77</td>
</tr>
</tbody>
</table>

Table 3: Rejection Rates in Treatments

<table>
<thead>
<tr>
<th></th>
<th>C treatment</th>
<th>RC treatment</th>
<th>R treatment</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>share of rejected help</td>
<td>13.79%</td>
<td>19.35%</td>
<td>28.13%</td>
<td>20.65%</td>
</tr>
<tr>
<td></td>
<td>(4/29)</td>
<td>(6/31)</td>
<td>(9/32)</td>
<td>(19/92)</td>
</tr>
</tbody>
</table>

the R treatment significantly differs from our error benchmarks rate. Later, we present preliminary evidence on the reasons for this behavior.

5.1 Rejection of unrequired help

Our analysis is based only on subjects in the role of agents who solved the logical puzzle correctly. Among these, a sizable proportion of agents reject help in all treatments (see Table 3 and Figure 2). In the R treatment where agents can satisfy all three psychological needs (preserving self-esteem, signaling autonomy and cognitive ability), 28.13% (9 out of 32) reject paternalistic help. Subjects who failed to solve the logical puzzle give some indication that the consequences of rejection were well-understood: none of them rejected help. Assuming that subjects who were capable to solve the puzzle have a higher cognitive ability, one would expect them to have even better understood these consequences. This suggests that the rejection decision is not random.

In order to test whether rejection is caused by randomness, we compare the rejection rate in the R treatment to our error benchmark based on the “paying for nothing” option. The error rate is about 5.13%: 2 out of 39 subjects choose the costly payoff option which delivers no additional value. This error rate is significantly different from the rejection rate of 28.13% in the R treatment (Fisher’s exact test; p=0.009). The finding is confirmed in a linear probability model in which rejection is regressed on treatment dummies—see column (1) in Table 4. The intercept in this regression, which represents the share of rejection in the RC treatment, is highly significantly different from zero and so is the share in the R treatment (which is not statistically different from that in the RC treatment). This result is robust to the inclusion of controls.
Figure 2: Rejection Rates in Treatments
(p-Values are for Fisher’s exact test)
Result 1. Subjects are willing to reject help, even though it is costly. The rejection rate is significantly different from the error rate.

This finding suggests that people do not reject help erroneously. Subjects seem to be driven by more than their material outcomes—be it in relative or absolute terms. The psychological needs to reject help seem to outweigh the obvious material costs. Moreover, this need seems to go beyond the desire to control the outcome.

5.2 Tentative evidence on the motives to reject help

The data does not allow us to pinpoint which specific psychological need is met by the rejection but the experiment gives us some indication. Even in the most sparse setting, where rejection cannot affect the paternalist’s image of the agent because the paternalist does not learn whether help was rejected (C treatment), 13.79% of agents reject help. Estimating this share after controlling for gender and field of study by subtracting the C treatment effect from the reference group (RC treatment) yields 30.17%-2.48%=27.69% (see specification (2) in Table 4). This larger share is consistent with the idea that women who are perhaps less likely to reject help are over-represented in the C treatment and hence downwardly biasing the share of rejection in this treatment.

Eliminating the possibility to signal competence (by moving from the R to the RC treatment) reduces the rejection rate by about 30% (8.78 percentage points), while removing the opportunity to signal autonomy (by comparing RC to C treatment) decreases the rate by another 30% (5.56 percentage points). Leading to a share of although rejection cannot affect the paternalist’s image of them. These economically significant reductions may suggest that signaling competence and autonomy are important motives when it comes to rejecting help. The reductions, however, are not statistically significant (see p-values in Figure 2). Concluding that the differences are entirely driven by randomness, however, seems premature.

Recall that the rejection rate in the R treatment is significantly different from the error rate. If the treatment effects really were the result of randomness, this would logically imply that in all treatments, the fundamental rejection rate must be the same as that in the R treatment. This, in turn would mean that in all treatments including the C treatment, the rejection rate is different from the error rate. This, however, is not what we find: in the C treatment, we cannot reject that the rejection rate is equal to the error rate. Since we know that the effect must come from somewhere, the only logical explanation is that we do not have enough observations to identify where it originates. Judging from the size of the p-values and the fact that the share in the C treatment is likely to be underestimated, a tentative conclusion might be that signaling to the paternalist is not the only motive.
but that preserving self-esteem matters.

A higher number of observations thus seems necessary to statistically identify the motive. Notice, however, that even doubling the number of participants would not yet do the job. Assuming that rejection rates remain the same, the differences between the treatments would still be driven by four subjects, each. Even the effect, which for the moment is the strongest,\(^3\) the effect of self-esteem measured by the comparison between error rate and rejection rate in the C treatment, would after doubling observations barely be significant at the 10% level. At the same time, costs for each independent observation are relatively high because only around 38% of the total subjects fulfill both requirements by ending up in the role of agent and being able to solve the logical puzzle. This is why we decided to refrain from further increasing numbers for the moment and reporting tentative results, instead.

Table 4: Linear probability regression on the decision to reject help

<table>
<thead>
<tr>
<th></th>
<th>Dependent variable: 1 if agent rejected help, 0 otherwise</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(1)</td>
</tr>
<tr>
<td>C treatment</td>
<td>-.0556**</td>
</tr>
<tr>
<td></td>
<td>(.0972)</td>
</tr>
<tr>
<td>RC treatment</td>
<td>Ref.</td>
</tr>
<tr>
<td>R treatment</td>
<td>.0877</td>
</tr>
<tr>
<td></td>
<td>(.1083)</td>
</tr>
<tr>
<td>business student</td>
<td>-.2470**</td>
</tr>
<tr>
<td></td>
<td>(.0693)</td>
</tr>
<tr>
<td>female</td>
<td>-.0260</td>
</tr>
<tr>
<td></td>
<td>(.0721)</td>
</tr>
<tr>
<td>constant</td>
<td>0.1935***</td>
</tr>
<tr>
<td></td>
<td>(.0721)</td>
</tr>
<tr>
<td>N. obs.</td>
<td>92</td>
</tr>
<tr>
<td>(R^2)</td>
<td>0.0212</td>
</tr>
</tbody>
</table>

Notes: Linear probability estimates. Robust standard errors are in parentheses. * business student is equal 1 for a student studying in the field of Business Administration and Economics, (=0) for students in other study fields.

* significant at \(p<0.10\); ** significant at \(p<0.05\); *** significant at \(p<0.01\)

6 Conclusion

Our results indicate that individuals reject paternalistic help, even though this is costly to them, has no material benefit, and does not improve their material situation in relation to other individuals, or increase their ability to control the outcome. Almost every third agent rejects help when this allows them to preserve self-esteem or to signal their autonomy or their competence—a highly statistically significant effect. When it comes to the motivational forces behind the results, our findings are only tentative. While the design allows to cleanly identify these forces

\(^3\)The difference between rejection rate in the C treatment and the error rate is least likely to be caused by randomness according to the p-values associated with the three motives.
and treatment effects are sizable and suggest that all three motives matter, they are not significant, which (as we argued) comes from the low number of observations. Clearly, further research is needed to statistically identify which motives contribute to the rejection of help and the suggested design can be used to do so.

References


Deci, Edward L., “Effects of Externally Mediated Rewards on Intrinsic Motiva-


James, William, *The principles of psychology* New York 1890.


Appendix

Logical puzzle

Please, read through the complete problem before trying to solve it.

The dice line

Five ordinary dice are lined up. (The numbers on two opposing sides of an ordinary die sum up to seven.)

The first die faces the tabletop with the number 1.
The second die has twice as many points on the upper side as the third die.
The third die faces the tabletop with the number 4.
On the upper side of the fourth die a number is shown that is equal to the number on the upper side of the second die reduced by the number shown on the upper side of the third die.
The fifth die faces up with the number that the first die faces the tabletop.

What is the number of the fifth die facing up?
Figures: Screen Shots and Instructions (Information sheets)

Figure 3: Screen shot of the agent’s rejection decision

Figure 4: Screen shot of the error benchmark ‘paying for nothing’
Figure 5: Illustration for subjects: C Treatment (translated from German)
Figure 6: Illustration for subjects: RC Treatment (translated from German)
Figure 7: Illustration for subjects: R Treatment (translated from German)
General Explanatory Notes

You are now participating in an economic experiment. This instruction is the same for all participants, please read it carefully. We will explain to you everything that you need for the experiment. If you have any questions, please raise your hand. Your questions will then be answered at your place. Apart from this, no communication is allowed during the experiment.

You will receive a show-up fee of 2.50€ for participating in this experiment. In addition, you can earn Taler during the experiment, which will be paid into your account. This account will be converted into Euro and paid out. The exchange rate is:

1 Taler = 5 Cent

The converted income will be paid out after the experiment together with the show-up fee.

Structure of the Experiment

1. You and a randomly assigned participant are forming a group. You will not learn with whom you are in the same group. In each group, there are two roles: a decision maker (E) and an observer (B). The decision maker E initially has 40 Taler on the account and the observer B 100 Taler.
2. You learn whether you are the decision maker E or observer B.
3. The decision maker E solves a problem and submits a solution for himself and B.
4. Before the submitted solution is received, the observer B will be shown the problem and the correct solution. B does not learn which solution E has sent.
   a. The observer can **give the decision maker his head**. Then the decision of the decider is going to be received for both.
   b. The observer can **meddle with the decision maker** at the price of 10 Taler. Then the solution of the decision maker will be replaced by the correct solution.
5. [R treatment:] Only the decision maker learns whether the solution which he submitted is correct. The observer does not learn this.
   [RC and C treatment:] Observer and decision maker learn whether the solution submitted by E is correct.
6. The decision maker E does not know whether B has meddled with him but has to come to a decision for the case that the observer meddled with him.
   a. E can **accept the meddling**. Then, the observer decides and the correct solution is received for both.
   b. E can **oppose the meddling** at a price of 2 Taler. Then, the decision maker decides for himself: For E, his own solution is used and for B, the correct solution.

[R and RC treatment:] The observer will be informed whether the decision maker has opposed the meddling.
[C treatment:] The observer will not be informed whether the decision maker has opposed the meddling.
Payoff for decision maker E

The decision maker has a starting balance of 40 Taler. In addition, the decision maker receives 80 Taler if the received solution is correct.

The correct solution may be received in three different cases...
...if B has not meddled with him and E has submitted the corrected solution,
...if B has meddled with him and E has not opposed this meddling or
...if B has meddled with him, E opposed this meddling and the solution send by E is correct.

In the case that B has meddled with E and E has opposed this meddling, 2 Taler will be deducted from E.

Payoff for observer B

The observer has a starting balance of 100 Taler. In addition, the observer receives 50 Taler if the correct solution is received for him. The correct solution is received froh im...
...if B has not meddled and E has submitted the correct solution or
...if B has meddled with E.

If B has meddled with E, 10 Taler will be deducted from his account.

All decisions and the payoff consequences are depicted again in the distributed chart.

What happens after the experiment

i. You answer some demographic questions as well as questions related tot he experiment.
ii. You wait at your place until your seat number is called.
iii. You are called and receive your payoff.

Please note:

- During the whole experiment and communication with other participants is prohibited.
- All phones have to be switched off during the entire experiment.
- If you have any questions, please remain seated and raise your arm. Please ask questions such that no other participant can hear your question.
- All decisions are anonymous, i.e., no other participant will learn who made which decision.
- Also the payoff will be paid out anonymously, i.e., no participant learns the payoff of another participant.
- Please remain seated at the end of the experiment. You will be called for payoff using your seat number.

Good Luck and thanks for participating in this experiment!