



Commentary

Institutions and morals: A reply[☆]Armin Falk^{a,*,1}, Nora Szech^{b,*,1}^a Center for Economics and Neuroscience, University of Bonn, Bonn 53127, Germany^b Karlsruhe Institute of Technology, Karlsruhe 76128, Germany

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ABSTRACT

Breyer and Weimann (2015) suggest interpreting the results of our study on Morals and Markets (2013a,b) in “the opposite way”. In the following, we briefly discuss why this claim is unwarranted. We hope that these clarifications will help inspiring future work on causal effects of markets and other institutions on moral values.

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*For, he reasons pointedly,
That which must not, can not be.*
[C. Morgenstern (The Impossible Fact, 1910)]

1. Clarifications

(i) The widespread sentiment that markets may erode moral values or may only work properly if moral norms are specifically high is a long-standing concern that has also been expressed by economists themselves (compare e.g., Arrow, 1974; Sobel, 2010). (ii) The design of markets and mechanisms is a vivid field of research in economics. Goals are typically to increase profits on one market side, or to increase overall welfare. Depending on which goal is envisioned, very different market designs turn out optimal (compare e.g., Myerson, 1981). There is also a rich literature documenting the limits of markets. For example, when information is asymmetric across market participants, efficiency is often not achievable (Akerlof, 1970). (iii) A general misunderstanding of B/W is that our paper addresses the issue of market efficiency. The paper is explicitly not about efficiency effects for market participants, but about negative consequences for third parties. (iv) B/W emphasize that lab experiments have particular problems in terms of “external validity”. This is a widely held but nevertheless incorrect notion. Problems of generalizability apply equally to lab and field data, and any estimation of causal effects. In fact, the real issue in empirical work is determining the best way to isolate the causal effect of interest (for a

[☆] We want to thank Breyer and Weimann (B/W henceforth) for commenting on our paper, Morals and Markets (Falk and Szech, 2013a,b). They raise four main objections. Before we address these objections in detail, we would like to provide some general clarifications.

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discussion, see e.g., [Falk and Heckman, 2009](#)). (v) In light of the rhetoric introduction of B/W, we find it useful to copy the following quote from our original paper: “Markets have tremendous virtues in their capability to generate information about scarcity and to allocate resources efficiently. The point of this study is not to question market economies in general ([Lane, 1991](#)). Indeed, other organizational forms of allocation and price determination such as in totalitarian systems or command societies do not generically place higher value on moral outcomes. Furthermore, the development of a complex market structure may require and therefore correlate with the prevalence of moral and social values, such as trust and cooperativeness. Results confirming this intuition, in line with the *Doux-commerce Thesis* ([Hirschman, 1982](#)), are expressed, e.g., by [Kenneth Arrow, 1974](#)” (p. 710).

2. Market institutions

B/W's ([Breyer and Weimann, 2015](#)) first point consists of two parts, (i) the individual condition is a market, and (ii) double auction market institutions are rather something like “small group bargaining situations” instead of common market environments. As a consequence of this understanding, B/W state that the economically correct interpretation of our results would be “the opposite” of what we conclude from our data.

Markets are places where buyers and sellers interact to trade items for money, exactly as in the double auction institution. It is textbook knowledge that the double auction reliably reproduces outcomes that B/W seem to care for with regard to markets, such as market clearing, efficiency, reactions to demand and supply shocks and convergence to the competitive equilibrium, even for extremely low numbers of participants. The properties of the double auction are in sharp contrast to ultimatum bargaining, unlike to what B/W seem to suggest. The double auction has been a standard tool to study market behavior in hundreds of experimental studies.

Turning to the individual condition, B/W argue that this treatment should be seen as the most plausible market environment, because money is involved and because subjects act as “price-takers”. The act of killing a mouse in the individual condition would be comparable to “buying chocolate” at a “supermarket”.

With regard to monetary incentives, following the methodological standards in economics experiments, it is essential to incentivize subjects' decisions. Therefore, also in the individual condition subjects need to receive money according to their decisions: It would be “cheap” to claim being moral if this was costless. As a consequence, the comparison of the individual treatment with markets cannot involve receiving money versus not receiving money.

Referring to B/W's example of buying chocolate at a supermarket, it is important to note that the price for chocolate has emerged in a market where firms and customers have interacted; the price responds to market forces. Hence there is social information in the market price. This is not the case in our individual condition.

One might argue that subjects in our individual condition nevertheless *perceived* the 10 euros as a price tag and hence perceived themselves as “price-takers”. Yet killing rates in the individual condition are almost identical to killing rates at ten euros in our individual price-list treatment. In the latter, subjects had to decide between the life of the mouse and various amounts of money. In this condition, subjects cannot perceive themselves as “price-takers” in any sense: In fact, they determine the price for the life of a mouse themselves. Moreover, they can definitely not perceive a list of multiple monetary amounts (from 2.50 to 50 euros) as identical to a price tag that emerged in a market as a consequence of the interaction of market participants. All our results remain unchanged if we only use data from the individual price-list treatment.

It is possible that paying subjects in the individual condition already introduced some legitimacy, implying that we actually underestimate the effects of commercial trading on moral values. We are cautious not to interpret the observed differences in terms of money versus no money but instead in terms of individual decision-making versus market transactions. “Market” then refers to a setting that involves receiving social information about the legitimacy of the trade, as well as a potential focus on profits as we describe in our original paper.

3. Comparison of treatments

In their second point, B/W claim that our results do not allow for “clear conclusions”. Specifically, they criticize that more than “one aspect” was changed across individual and market conditions and that payoffs in the markets were depending on one randomly selected trading round.

First, changing only “one aspect” is not a precondition for identifying a causal effect of interest, e.g., behavioral responses to different institutions. If anything, it only limits the possibility to uncover specific reasons or channels for the observed differences. If the researcher is interested in establishing a causal difference in behavior as a response to different institutions, the requirement is that these institutions are appropriately defined, potentially involving multiple differences between them; and that treatment assignment is random. Differences in behavior can then be causally attributed to differences between these institutions. For example, if you want to find out whether you reach a destination faster going by car or bicycle you have to go by bike and by car; and cars and bicycles differ in more than one respect (e.g., four wheels versus two, motor versus no motor, ABS versus no ABS).

Second, paying one randomly selected round is a standard procedure in experimental economics. If randomization had actually affected subjects' behavior, it should have affected behavior in the price-list treatment as well. In the latter, one of twenty possible decisions was randomly drawn and implemented. Yet results are very similar to those from the individual decision treatment.²

² Reviewing the evidence on differences between the strategy method (which also involves random payment conditional on reaching an information set) and the direct response method (including no random payment), [Brandts and Charness \(2011\)](#) conclude that “in no case do we find that a treatment effect found with the strategy method is not also present with the direct-response method”.

4. Erosion of moral values

For our comparisons of moral values across different institutions, we focus on subjects' willingness to opt for 10 euros and thereby agreeing to the death of a mouse. B/W argue we should have elicited individual preferences about killing mice before letting subjects weigh 10 euros against the life of a mouse in a specific institution. Yet if the research interest is in uncovering potential behavioral differences between institutions, why should moral (or other) dispositions of interest be elicited in a way that is detached from the institution?

Eliciting preferences prior to the experiment as suggested by B/W could produce important confounds in the experiment, e.g., because subjects want to be or appear consistent with prior statements (Falk and Zimmermann, 2013). With regard to the validity of the mouse paradigm as a measure of moral values, Deckers et al. (2014) present detailed evidence. Albrecht et al. (2014) further demonstrate a strong link between caring about human ethics and caring about animal welfare.

5. Measures of immorality

Objection 4 refers to the way we quantify the extent of immorality in our study. Our focus is on how the institutional framework affects *individual* moral dispositions. B/W claim that the number of mice dying is the more appropriate measure of immorality for our context. They further state that using this measure, differences between the individual and the bilateral market condition are small. In this respect, B/W leave unmentioned that if we actually use their measure, the killing rate in the multilateral market is significantly higher compared to the individual condition.³

In order to assess moral standards in a given population, we compare the fraction of people in different institutions who are willing to support immoral activity. This is why we used fractions of subjects agreeing to kill a mouse for 10 euros (see Fig. 1 in our paper). As B/W acknowledge, our measure is in line with prominent research on morals and institutions.

Focusing on outcomes (number of killed mice) is of course interesting as well, though it may yield less robust conclusions because outcomes could depend on minor institutional details. For example, the number of killed mice may depend on the actual size of a market, e.g., the number of potential trading partners a buyer or seller faces. For example, in our individual treatment, subjects can always decide to kill a mouse. In markets, the possibility to trade depends on the trading partner's willingness to trade. If no agreement is reached, the mouse is saved. In the bilateral set-up, the seller cannot approach another buyer at all. In this sense, our bilateral market set-up puts a strong barrier on moral decay (as measured in outcomes). Nevertheless, even in outcomes, if anything, there is a tendency towards an erosion of moral values.⁴

Even with the measure of B/W, the bilateral market does not enhance moral values compared to the individual treatment. The multilateral market causally decreases morals.

6. Concluding remarks and outlook

We hope that our reply clarified all issues raised by B/W. Future research should address causal effects of other important institutions on moral behavior. Furthermore, underlying mechanisms should be studied in more detail. We are also pursuing studies in order to understand specific channels better (e.g., Falk and Szech, 2013c, 2015; Rothenhäusler et al., 2015). This will hopefully provide a basis for policy interventions designed to limit moral transgression.

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³ Out of 7 possible trades, 4.9 were concluded in multilateral. Hence 70% of all mice that could have been killed died, which is significantly higher than in individual ($p < 0.01$, Two sample test of proportions).

⁴ To illustrate, 45.9% of all traders agree to kill the mouse in the individual treatment. The price negotiated in the bilateral market is in almost all cases 10 euros. The expected fraction of killed mice in a given market period should thus roughly equal $45.9\% * 45.9\% = 21.1\%$ in the bilateral market (for a more detailed prediction, see our simulation results in the SOM of our paper). In contrast, the actual killing fraction in the bilateral market is 47.7%. This increase is highly significant. What drives this increase is the change in willingness to kill for 10 euros, as reported in Fig. 1 of our paper.

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