Open access • Journal Article • DOI:10.1257/AER.P20171109

The Ethics of Incentivizing the Uninformed: A Vignette Study — Source link

Sandro Ambuehl, Axel Ockenfels

Institutions: University of Toronto

Published on: 01 May 2017 - The American Economic Review (American Economic Association 2014 Broadway, Suite 305, Nashville, TN 37203)

Topics: Free contract, Vignette, Incentive and Informed consent

The ethics of incentivizing the uninformed: a vignette study

Ambuehl, Sandro ; Ockenfels, Axel

Abstract: Our recent working paper (Ambuehl, Ockenfels, and Stewart 2017) shows theoretically and experimentally that people with higher costs of information processing respond more to an increase in the incentive for a complex transaction, and decide to participate based on a worse understanding of its consequences. Here, we address the resulting tradeoff between the principle of informed consent and the principle of free contract. Respondents to our vignette study on oocyte donation overwhelmingly favor the former and support policies that require donors to thoroughly understand the transaction. This finding helps design markets that are not only efficient but also considered ethical.

DOI: https://doi.org/10.1257/aer.p20171109

American Economic Review: Papers & Proceedings 2017, 107(5): 91–95
https://doi.org/10.1257/aer.p20171109

The Ethics of Incentivizing the Uninformed: A Vignette Study[†]

By Sandro Ambuehl and Axel Ockenfels*

Economists often espouse incentives, since they can lead to desirable outcomes simply by enlarging the set of voluntary choices available. Becker and Elias (2007), for instance, argue that allowing incentives for living organ donation would be a Pareto-improvement.[1] Ethicists, by contrast, are typically queasy about incentives, in particular as they apply to transactions like organ donation, medical trial participation, or surrogate motherhood. Our aim is to better understand the empirical nature of the constraints that ethical concerns place on markets (Roth 2007; Ambuehl, Niederle, and Roth 2015; Ambuehl 2017).

In a recent working paper (Ambuehl, Ockenfels, and Stewart 2017), we show both theoretically and experimentally that when the acquisition and processing of information about a transaction is costly, individuals with higher marginal costs of information often respond more to a given increase in the incentive. Hence, as incentives rise, people who find it more difficult to become well-informed about the transaction comprise an increasing fraction of participants. They elect to participate based on a less complete understanding of the consequences of their choice (see Section IIC for intuition).

Incentives may thus be at odds with *informed consent*. This fundamental principle of bioethics maintains that a decision is ethically sound if it is made not only voluntarily but also, in light of all relevant information, properly comprehended (DHEW 1978, The Belmont Report).

Will people express reservations about incentives if they lead to the selection effects we document in our working paper? On the one hand, such behavior is consistent with Bayesian rationality. Hence, within a standard welfare economics framework, it does not give rise to concern. On the other hand, a mechanism that causes people to participate based on an inferior understanding of the transaction is in uncomfortable company with the principle of informed consent, no matter whether rational or not.

We examine this question using a vignette study. Respondents judge the ethics of incentives for human egg donation when potential participants differ in cognitive ability, and of various policies to increase the supply of egg donors. We design the survey with two goals in mind. First, we separate concerns about incentivizing people who differ in cognitive ability from concerns with incentivizing the poor. This distinction is relevant for a policymaker aiming for political feasibility. If, empirically, ethical concerns center around a lack of comprehension about the transaction, then the moral acceptance of an incentive system can be improved by interventions such as stringent informed consent requirements. By contrast, informational interventions will not ease concerns that primarily relate to economic inequality. Second, we aim to determine whether concerns about incentives for people with heterogeneous ability are related to the mechanisms we document in our working paper. We test a necessary condition: How do respondents think incentives affect the selection of participants, and how do they think information acquisition responds depending on the ability of the incentivized? The theoretically predicted mechanisms are a plausible reason for concerns with incentives only if respondents anticipate them.

*Ambuehl: Department of Management, UTSC, and Rotman School of Management, University of Toronto, 105 St. George Street, Toronto, ON M5S 3E6, Canada (e-mail: sandro.ambuehl@utoronto.ca); Ockenfels: Department of Economics, University of Cologne, Universitätsstrasse 22a, 50923 Cologne, Germany (e-mail: ockenfels@uni-koeln.de). We are grateful to Fulya Ersoy, Annett John, Nico Lacetera, Matthew Mitchell, Luigi Zingales, as well as participants at the University of Toronto's economic theory workshop for helpful comments and suggestions. Ockenfels thanks the DFG research unit "Design & Behavior" (FOR 1371) for financial support.

[†] Go to https://doi.org/10.1257/aer.p20171109 to visit the article page for additional materials and author disclosure statement(s).

[1] Such incentives are currently prohibited in all countries except Iran.

I. Vignette

Our vignette briefly describes the transaction of paid egg donation and highlights the need for information acquisition that arises from its complexity. We introduce two women thinking about donating eggs in exchange for $8,000, and explicitly describe their cognitive ability and level of education, as well as their financial situation. For each respondent, the two women vary along one of the dimensions and are equal along the other, yielding the four treatments (ability varies, rich), (ability varies, poor), (high ability, finances vary), and (low ability, finances vary).[2] To mute the association between ability and income, respondents consider financial resources that vary due to an inheritance of $500,000, rather than due to differential wage rates.

We conducted the survey in Fall 2016 on Amazon Mechanical Turk with a total of 502 US-based respondents. We paid $5 for participation, and attrition was independent of treatment (see the online Appendix for details and survey).

II. Results

A. *Ethical Judgments*

How do respondents ethically judge a rise in the incentive if it leads to a disproportionate increase in the participation of low-ability women? We elicited respondents' judgment of an increase in the incentive by $4,000, and asked them to assume that the additional donors drawn by the higher incentive are mostly low-ability women. A striking 59.2 percent of our respondents think that the clinic should not raise the incentive, compared to 10.8 percent who think the opposite, and 30.0 percent who are indifferent, as panel A of Table 1 shows. In stark contrast, many fewer respondents disapprove of raising the incentive when asked to assume that it leads to negative selection regarding financial means. In this case, only 32.1 percent think the clinic should *not* raise the incentive, whereas 21.0 percent think it should, and 46.8 percent are indifferent. Hence, respondents are concerned about incentivizing those who might not easily understand what they sign up for, and this is not merely an implication of concerns with incentivizing the poor.

Both of these results are reflected in the answers to two additional questions. First, we separately elicited respondents' judgments about who should be incentivized if a single additional donor is needed. On the one hand, 28.4 percent think it is more ethically sound to incentivize the high-ability woman, 3.2 percent would incentivize the low-ability woman, and the remaining 68.4 percent are indifferent, as panel B shows. On the other hand, respondents feel less strongly, and less unanimously, about targeting women depending on financial resources. 86.1 percent are indifferent, and those who are not fall about equally on either side.

Second, we asked about the extent to which respondents consider an $8,000 incentive for egg donation ethical. As panel C shows, 15.6 percent think that incentivizing low-ability women is unethical, but only 4.8 percent think this way about incentivizing high-ability women, a difference of 10.8 percentage points ($p = 0.01$, averaged over financial resources). Varying financial resources by half a million dollars, by contrast, changes the fraction of respondents who consider the incentive unethical only by a statistically insignificant 2.4 percentage points (averaged over ability).[3]

B. *Policy Judgments*

How can one increase the number of participants in a transaction like egg donation in a way that respondents will view as ethically sound? Grant (2006, p. 33) suggests that persuasion "on the basis of reason alone might be considered *the* morally exemplary form of power."

To test this intuition, we asked respondents to explicitly compare two policies, assuming that they both raise the expected number of participants by the same amount, and generate an additional $4,000 in expenses per donor. The first policy simply increases the incentive payment. The second policy leaves the incentive

[2] We randomized the order of presentation and the assignment of names to women on the individual level.

[3] There is an interesting discrepancy between the large fraction of respondents who disapprove of a rise in the incentive, and the small fraction who consider the original incentive unethical. Many respondents seem to subscribe to the view that once somebody has declined an offer, one should not attempt to "bribe" them into changing their mind (Grant 2006).

TABLE 1—ETHICAL JUDGMENTS

	Do not	Do	Indifferent
Panel A. Raise incentive?			
Selection: ability	59.2	10.8	30.0
	(3.1)	(2.0)	(2.9)
Selection: income	32.1	21.0	46.8
	(2.9)	(2.6)	(3.1)
	Low	High	Indifferent
Panel B. Target whom?			
Ability	3.2	28.4	68.4
	(1.6)	(1.6)	(2.2)
Income	6.7	7.1	86.1
	Low	High	Difference
Panel C. Incentivizing unethical?			
Ability	15.6	4.8	−10.8
	(1.9)	(1.9)	(2.7)
Income	10.7	8.3	−2.4
	(1.8)	(1.8)	(2.6)

Notes: Panels A and B show the percentage of respondents selecting into each column. Panel C shows the percentage of respondents considering incentivizing the respective woman unethical. All panels only use the respondents for whom the respective attribute was varied and average over the other attribute. Standard errors in parentheses.

TABLE 2—POLICY JUDGMENTS

	Information	Pay	Neither
Panel A. Which policy?			
More ethical	67.7	16.7	15.5
	(2.1)	(1.7)	(1.6)
Donors prefer	10.4	78.9	10.8
	(1.4)	(1.8)	(1.4)
	Oppose	Support	Neither
Panel B. Law			
Mandatory information	24.3	62.4	13.3
	(1.9)	(2.2)	(1.5)
Exam	28.3	56.4	15.3
	(2.0)	(2.2)	(1.6)
		Choice in best interest	
		Participate	Abstain
Panel C. Individual consistency			
Support for			
Mandatory information		−0.095	0.020
		(0.049)	(0.052)
Mandatory information and exam		−0.081	0.040
		(0.053)	(0.056)
Information more ethical than incentive		−0.100	−0.022
		(0.048)	(0.050)

Notes: Panels A and B show the percentage of respondents selecting into each column, using those for whom the respective attribute was varied and averaging over the other attribute. Panel C shows how participants' responses depend on their beliefs about women's choices. Jointly estimated using seemingly unrelated regression on all respondents. Standard errors in parentheses.

payment unchanged, but uses the funds to provide information such as meetings with previous donors, and psychological counseling. Panel A of Table 2 shows that 67.7 percent of the respondents feel that the information policy is more ethical than the higher incentive. In stark contrast, only 10.4 percent predict that potential donors would prefer the information policy; 78.9 percent predict donors would prefer the higher incentive.

These results suggest a demand for policies to ensure that participants in a transaction like egg donation are sufficiently well-informed. Hence, we asked respondents to assess two such interventions. The first requires potential egg donors to attend mandatory information sessions and to interview five previous donors. As panel B shows, 62.4 percent of respondents support this policy; only 24.3 percent oppose it. Support recedes only mildly (to 56.4 percent) for a more heavy-handed intervention that additionally requires potential donors to pass a thorough exam about the possible consequences of egg donation. (Opposition rises to 28.3 percent.)

Respondents' attitudes are consistent, on the individual level, with their predictions of behavior. We elicited, for each woman and for each participation decision she could have made, how likely the respondent thought that her decision was in her own best interest, given the information she had acquired. As the first column of panel C shows, the less likely a respondent thinks a woman's decision to participate is in her own best interest, the more likely they support mandatory information sessions, and the more likely they consider increasing participation through informational interventions ethically superior to higher incentives.[4]

The second column shows that whether a woman's decision to abstain is deemed in her best interest has no predictive power; only judgments about the decision to participate do. Respondents' policy judgments depend on

[4]This result refutes the alternative hypothesis that respondents' reservations about incentivizing low-ability egg donors primarily concern the potential offspring.

beliefs about decisions that may cause a woman to be ex post worse off than before the transaction, but not about those that may cause her to forgo a potential benefit.

C. *Predictions of Behavior*

To test whether moral concerns are plausibly related to the selection effects described in Ambuehl, Ockenfels, and Stewart (2017), respondents predicted the behavioral effects of incentives. They did so before we elicited ethical judgments.

We presented the following scenario. A woman interested in donating eggs in exchange for $8,000 has informed herself by talking to a previous donor. That donor has encouraged participation. The woman considers searching for one more donor to interview, but she is not quite sure whether it is worth the effort. Now, she learns that the compensation for egg donors has increased to $12,000. How will this change the likelihood that she contacts an additional donor? And how will this effect differ if the previous donor had instead discouraged participation? For each of the women, each respondent saw both these questions.

Panel A of Table 3 shows the results. Confirming the theoretical and experimental result in Ambuehl (2017), respondents predict that women who have talked to a discouraging donor will become more likely to contact another donor as the incentive rises. Indeed, if the opportunity cost of nonparticipation rises by $4,000, a Bayesian should exert more effort to ensure that the decision to abstain is not a mistake. At the same time, respondents predict women who have met an encouraging donor will become less eager to obtain a second opinion as the incentive rises. This is also consistent with rationality. The additional incentive provides partial insurance against ex post undesirable outcomes, causing a Bayesian to reduce the acquisition of costly information that may prevent ex post-mistaken participation.

Most crucially, respondents believe that incentives affect the information acquisition of low-ability women more strongly. Specifically, they predict that after receiving encouraging information, the higher incentive significantly deflates the propensity of low-ability women to contact another donor, but barely affects high-ability women. The effect of ability is significantly smaller if the initial information was discouraging.[5] Such information acquisition behavior implies that low-ability women will respond more strongly to an increase in the incentive, and will therefore be selected disproportionately.

Table 3—Predicted Behavior

	Low ability	High ability	Difference
Panel A. ΔP (ask another donor)			
First donor			
encouraging	−0.55	−0.09	0.46
	(0.05)	(0.05)	(0.07)
discouraging	0.37	0.50	0.13
	(0.05)	(0.05)	(0.07)
	Low	High	None
Panel B. Predicted selection			
Ability	64.0	18.4	17.6
	(3.0)	(2.5)	(2.4)
Income	75.8	19.0	5.2
	(2.7)	(2.5)	(1.4)
	$\partial_{ability}\partial_{incentive}P$(find second) after first donor was		
	encouraging	discouraging	
Panel C. Individual consistency			
Selection effect of incentive on ability	−0.129	0.048	
	(0.053)	(0.047)	

Notes: Panel A jointly estimated using seemingly unrelated regression. Dependent variable coded as 1 = more likely, 0 = just as likely, −1 = less likely. The difference-in-differences of 0.33 is statistically significant ($p < 0.01$). Panel B shows the fraction of respondents selecting into each column. Panel C shows the individual-level relation between predicted effects on information acquisition and predicted selection effects. Panels B and C only use respondents for whom the respective attribute was varied and average over the other attribute. Standard errors in parentheses.

Indeed, respondents anticipate these selection effects. We asked whether women who would participate for $12,000 but not for $8,000 are more frequently high- or low-ability women. Panel B shows that a 64 percent-majority predict that the marginal participant would more frequently be a low-ability woman, whereas 18.4 percent predict the opposite, and the remainder predict no selection effects.

[5] Similarly, respondents predict that the information acquisition of women with lower financial resources reacts more strongly to an increase in the incentive.

Strikingly, respondents' predictions about information acquisition relate to those about selection on the individual level. As panel C shows, respondents predict stronger selection effects if they have predicted a stronger effect of cognitive ability on the response of information acquisition to a higher incentive.[6]

Hence, moral concerns about incentives are plausibly related to the selection effects they exert, as documented in Ambuehl, Ockenfels, and Stewart (2017).

III. Conclusion

Informed consent requires adequate information and comprehension. Our vignette study considers a situation in which this requirement is in conflict with libertarian principles. It is motivated by the results in Ambuehl, Ockenfels, and Stewart (2017) who show that individuals with higher marginal costs of information processing often respond disproportionately to a rise in the incentive, and decide to participate based on an inferior understanding of the consequences of their choice. Respondents to our survey have qualms about incentivizing people for whom information processing is more difficult. These concerns directly relate to the ability to understand the transaction, and are not simply a side-effect of concerns with incentivizing the poor. Respondents express a pronounced preference for policies that increase adherence to the principle of informed consent, even if they restrict voluntary choice.

Respondents correctly predict how ability changes the effect of incentives on information search, and how incentives change the selection of participants. These predictions, and the individual-level consistency between the two, show that moral concerns with incentives are plausibly related to the mechanism documented in Ambuehl, Ockenfels, and Stewart (2017).

Designers of incentive systems for transactions such as organ donation may benefit from taking these concerns into account. Our results suggest that policies will be considered ethically sound only if they ensure that participants have a thorough understanding of the possible consequences of their choice. This is particularly important in situations where economic incentives may lead to a higher fraction of participants for whom obtaining and appropriately comprehending information is more difficult. Potential applications include all transactions in which salient upsides are pitted against potentially complex downsides that demand thorough but costly information acquisition. Examples include human research participation, paid organ donation, motherhood, and may extend to other domains such as personal finance decisions.

[6] For all of these variables, respondents indicated not only the sign but also the strength of the effect.

REFERENCES

Ambuehl, Sandro. 2017. "An Offer You Can't Refuse? Incentives Change What We Believe." CESifo Working Paper 6296.

Ambuehl, Sandro, Axel Ockenfels, and Colin Stewart. 2017. "For They Know Not What They Do: Incentives with Costly Information Acquisition." Unpublished.

Ambuehl, Sandro, Muriel Niederle, and Alvin E. Roth. 2015. "More Money, More Problems? Can High Pay Be Coercive and Repugnant?" *American Economic Review* 105 (5): 357–60.

Becker, Gary S., and Julio J. Elias. 2007. "Introducing Incentives in the Market for Live and Cadaveric Organ Donations." *Journal of Economic Perspectives* 21 (3): 3–24.

Grant, Ruth W. 2006. "Ethics and Incentives: A Political Approach." *American Political Science Review* 100 (1): 29–39.

Roth, Alvin E. 2007. "Repugnance as a Constraint on Markets." *Journal of Economic Perspectives* 21 (3): 37–58.

US Department of Health, Education, and Welfare (DHEW). 1978. *The Belmont Report: Ethical Principles and Guidelines for the Protection of Human Subjects of Research*. National Commission for the Protection of Human Subjects of Biomedical and Behavioral Research. Washington, DC: US Government Printing Office.

This article has been cited by:

1. Eva Van Belle, Ralf Caers, Marijke De Couck, Valentina Di Stasio, Stijn Baert. 2019. The Signal of Applying for a Job Under a Vacancy Referral Scheme. *Industrial Relations: A Journal of Economy and Society* **58**:2, 251-274. [Crossref]
2. Dorothea Kübler, Julia Schmid, Robert Stüber. 2018. Gender discrimination in hiring across occupations: a nationally-representative vignette study. *Labour Economics* **55**, 215-229. [Crossref]
3. Philip J. Held, Frank McCormick, Glenn M. Chertow, Thomas G. Peters, John P. Roberts. 2018. Would government compensation of living kidney donors exploit the poor? An empirical analysis. *PLOS ONE* **13**:11, e0205655. [Crossref]
4. Alvin E. Roth. 2018. Marketplaces, Markets, and Market Design. *American Economic Review* **108**:7, 1609-1658. [Abstract] [View PDF article] [PDF with links]
5. Sandro Ambuehl, Axel Ockenfels, Colin Stewart. 2018. For They Know Not What They Do: Selection Through Incentives When Information is Costly. *SSRN Electronic Journal* . [Crossref]
6. Shengwu Li. 2017. Ethics and Market Design. *SSRN Electronic Journal* . [Crossref]