November 20, 2018

 Eric Rasmusen, erasmuse@indiana.edu,

**Notes from Seventeenth Annual Columbia/Duke/MIT/Northwestern IO Theory Conference**

**Papers:** <https://www.dropbox.com/sh/v8r5lst09hacjnd/AADhBK4x_LawIC_V0aGJa8Lfa?dl=0>

 185 Elm St Cambridge, MA 02139.

Morning Session at Royal Sonesta Hotel, joint with NBER Organizational Economics meeting

8:15 - 8:45 :

CONTINENTAL BREAKFA

Curtis Taylor story---**Knowledge trumps Vision**. His assistant couldn’t locate his name tag on the table—he knew he already had picked i tup. *Bad Blood* Elizabeth Holmes vision. Her almost-firing as CEO early on so they could hire someone with experience in management.

Start my talks by laying out the model--- like we do in job interviews. That will get the audience thinking about MY work. Usually motivation is unnecessary, or will come better after they know what I’m doing. They’re stuck in the audience anyway, and can’t leave, so I don’t need ot motivate them. Maybe the sme with referees. Not with readers, to be sure. So I should launch into the model, maybe state the proposition first, and then motivate after I give them the proposition and model both. While I am talking about motivation, they can be puzzling ove rhte omdel, too. Don’t start with the soft easy stuff.

Everybody needs to read my “Aphorisms on Writing, Speaking, and Listening” <http://www.rasmusen.org/GI/reader/writing.pdf> . I need to do a new edition of them, with advance in technology and wisdom. Suggestions welcomed.

Send my **blog entry on Whitaker** to Mike Waldman and Scott Masten and the Hong Kong Baptist guy. <http://rasmusen.dreamhosters.com/b/2018/11/the-acting-attorney-general-problem/#more-1929>

Send my **Exponents and Deri atives** to the MBA teachers. COlumbia, Richard Alonso r.alonso@lse.ac.uk wd2179@gsb.columbia.edu Heikki Rantakari heikki.rantakari@simon.rochester.edu **Cournot** too, while I’m at it. David MacAdams. Jenny Ramseyer. Mark Ramseyer. Wouter Dessein DONE

<http://www.rasmusen.org/papers/exponents.pdf>

<http://www.rasmusen.org/papers/derivatives.pdf>

<http://www.rasmusen.org/papers/cournot.pdf>

Continuity. Thnk about weak\* topology. Does it apply to simple functions with measure zero countable jumps?

 It would be nice to post the slides of the presenters and discussants too. Probalby needs to be done after the conference, tho, since they aren’t always written till the minute before they are presented.

Invite **for a BEPP seminar: tobias.salz**@columbia.edu

 I need to **buy a laser pointer** iwth low power, so its battery lasts a long time. Actually: rechargeable from USB is what I need.

It’s interesting how long the presentations are at this conference. 50 minutes, no questions along the way. I guess that’s equivalent to an hour and a half with questions. It’s just that the discussant and question are put at the end. The discussant reminds the audience of what the model was about, nad usually explains it better, and that takes the place of clarifying questions.

8:45 - 9:45 :

Raphael **Boleslavsky** PRESENTING(Univ. of Miami) and **Kyungmin Kim** (Univ. of Miami),

“Bayesian Persuasion and Moral Hazard”

Discussant: Alessandro **Bonatti** (MIT)

r.boleslavsky@miami.edu,

 kkim@bus.miami.edu, bonatti@mit.edu,

9:45 - 10:00 :BREAK

 Harvey Mansfield grades. Harvard government professor Harvey Mansfield has long been a critic of grade inflation. He's developed his own way of trying to combat it: giving students two sets of grades — the one they deserve and the one that shows up on their transcript. <http://www.wbur.org/hereandnow/2013/12/04/harvard-grade-inflation>

Babcock, Real Costs of Nominal Grade Inflration. 2010.

*We consider a three-player Bayesian persuasion game in which the sender designs a signal about an unknown state of the world, the agent exerts a private effort that determines the distribution of the underlying state, and the receiver takes an action after observing the signal and its realization. The sender must not only persuade the receiver to select a desirable action, but also incentivize the agent’s effort. We develop a general method of characterizing an optimal signal in this environment. We apply our method to derive concrete results in several natural examples and discuss their economic implications.*

 You should put your actual result in your abstract, not just say what you’re modelling. Tell us what we will learn by reading hte paper, an advertisement.

 The idea: if the school gives high grades so the students can get jobs, the students will shirk, reducing the overall quality of the students at the school and thus job opportunities. “Everybody knows Yale Law students don’t learn anything.” The problem is that the smart students can slack off and do as well as the dumb students.

Not exog info, endog rewards, as in usual moral hazard/adverse selection. Rather, endog info, exog rewards.

 In the model, it seems students are ex ante identical, and then learn if they are talented or untalented. This seems easy to deal with. Why is there a problem? Wouldn’t you just give F’s to the bottom 5%, say, and do whatever you’d do for Bayesian persuasion with the rest? I guess there’s some kind of optimization problem there.

 Actually, an interesting feature of this is that maybe if we added true noise—luck on the test--- it might help. Maybe the school should do that. Then, getting a bad grade is not so clear an indication of ability. Ah—I guess that reduces the incentive valeu of it too.

 What is more interesitng is if the students know ex ante what their talent level is. Adding luck might help more if there’s adverse selection too, though, because it means the talented student would be more scared not to study. For example, suppose a talented student can get a 90 on the test with no study, if there is no luck, but an untalnted student needs to study or he’ll get an 80. If we have an A for 90 and a B for 80, we’ll get the untalented to study, but not the talented. If we add luck, so sometimes you score 10 points lower, then the talented students will want to study (if study cost is low).

 Maybe relevnat, mabye not (no endogenous effort here):

Richmond **Harbaugh** and Eric B. **Rasmusen**, **"Coarse Grades," American Economic Journal: Microeconomics.** 10(1): 210-235 (February **2018**). Certifiers of quality often report only coarse grades to the public despite having measured quality more finely, e.g., "A" instead of "98". Why? We show that using coarse grades can actually result in more information reaching the public, because it encourages low-quality individuals or firms to become certified. In our model the certifier aims to minimize public uncertainty over quality subject to the feasibility constraint of voluntary certification at a fixed cost. Moving from the best exact grading scheme to the best coarse one (a) induces more participation and (b) reduces public uncertainty.

 “We also show that transparency,which allows the receiver to observe the agent’s effort, may reduce the informativeness of the equilibrium signal and harm the receiver.”

 This seems like the big result. It is not from the main model, but from a variant in which effort is somewhat observable by the receiver. So why not make tha the main model, instead, if that is the big result? I was wondering what the value of the paper is, because it is presetned as “I have modelled X”, which is pretty much never worth reading about. You need to present it as “I show Y.”

 I’m still sleepy, though, so I’ve missed a lot of what’s going on.

UNC apparently puts on teh transcript the grade distribution for each class.

 *Future transcripts will include the median grade in the class, the number of students in the class and the percentile range of the student’s grade.*

 *In addition, each student’s report will include a schedule point average for the semester, defined as “the mean of the median grades for the reportable course sections taken by the student, weighted by the number of credit hours for which each course section was taken.”*

 *Finally, each student will get a count of the course sections for that semester in which the student fell below, at or above the class median. For example, following are the components of a new transcript entry for Economics 101H:*

*ECON 101H*

*Course Grade: A*

*Median: [A]*

*Hours: 3.0*

*Quality points: 12.00*

*Percentile range: [ 0% – 66%]*

*Size: 33*

 <https://alumni.unc.edu/news/transcripts-will-include-expanded-information/>

 In this model, it seems, the commitment is to an A for an objective standard of achievement---- not to just a percentage of class. That’s OK, I think--- reputation is what has to be operating, and reputation is plausible enough. The problem for universities is one of controlling individual professors who want to give all A’s, not of the Administration committing to a desired policy.

 Everybody needs to read my “Aphorisms on Writing, Speaking, and Listening” <http://www.rasmusen.org/GI/reader/writing.pdf> . I need to do a new edition of them, with advance in technology and wisdom. Suggestions welcomed.

10:00 - 11:00 :

Anton **Kolotilin** (UNSW) and Andriy **Zapechelnyuk** (Univ. of St. Andrews),

**“Persuasion meets Delegation”** **akolotilin@gmail.com****.** **az48@st-andrews.ac.uk**

Discussant: Yingni **Guo** (Northwestern)

11:00 - 11:15 :

BREAK

*Abstract. There are two common ways for a principal to influence the decision making of an agent. One is to control the agent’s information (persuasion problem). Another is to limit the agent’s decisions (delegation problem). We show that, under general assumptions, these two problems are equivalent; so solving one problem solves the other. We illustrate how the methods developed in the persuasion literature can be applied to address unsolved delegation problems by considering monopoly regulation with a participation constraint.*

*Abstract. A principal can limit agent information (the persuasion problem) or limit possible agent decisions (the delegation problem). We show that often these problems are equivalent; solving one, solves the other. Thus, tools from the persuasion literature can address unsolved delegation problems such as arise in price regulation of a natural monopoly.*

*Abstract. A principal can limit agent information (the persuasion problem) or limit possible agent decisions (the delegation problem). We show that often these problems are equivalent; solving one, solves the other. Thus, tools from the persuasion literature can address unsolved delegation problems such as arise in price regulation of a natural monopoly.*

From the paper, very nicely stated:

 *In a* ***delegation problem****, the agent privately knows the state and the principal commits to a set of decisions from which the agent chooses.*

 *In a* ***persuasion problem****, the principal designs the agent’s information structure and the agent freely chooses a decision.*

***The principal’s tradeoff*** *is that giving more discretion to the agent in the delegation problem and disclosing more information to the agent in the persuasion problem allows for a* ***better use of information about the state, but limits control over the biased agent’s decision.***

 Natural monopoly regulation: Choose a price between 0 and 1 for the monopolist. Demand and costs are 0 at 1, which is the particicpation constraint---the monopolist can always shut down and get back his fixed cost. No fixed subsidy to the monopolist is allowed, of course. This can be mathematically restructured to be a persuasion, info disclosure, problem.

 The optimal policy turns out to be a price cap: allow the firm to choose any price in [0, p\*] or p=1. Then, if his costs are high, he picks p=1 1 and shuts down (pooling those cost states), but if his costs are lower, he operates (perfect separation).

Commenter Guo was good on this. Instead of allowed actions (prices) , have allowed tests to learn info.

Hmm. In the equivalent problem, we **pretend that the firm doesn’t know its type.** Principal says: **I will let you learn your type, by using a test that has a single cutoff** that tells you your costs are above it or below it. If your cost is above it, you will want to shut down. If your cost is below it, you will want to charge a price equal to your cost type.  **You get to choose the cutoff** type (so there is a continuum of tests, each with its own cutoff, and you have to choose just one of them to use). Then, the firm will choose the cutoff type to be the P\* that solves the delegation problem of choosing a price cap.

 In presenting, I would start with the example, and make it numerical, with a number for p\*. Then I would say, “This is quite general...” and go on to give the general theorem. In the paper, too, I think I’d do that. As is quite commonly the case, in this paper the example is more persuasive than the general model. People pretend that the general model is important, but usually in selling a paper it’s the example that is really what matters. People see the example, grasp what the method is doing, and then go and apply it to their own problems, pretty much ignoring the general proof. In your case, the generla proof is also useful, though, because it’s important to tell people what caveats are needed for delegation and testing-restriction to be equivalent (the term “persuasion” is horribly misleading, tho it is standard by now; your model is not about persuasion in the dictionary sense of the word at all).

Everybody needs to read or reread my “Aphorisms on Writing, Speaking, and Listening” <http://www.rasmusen.org/GI/reader/writing.pdf> . I need to do a new edition of them, with advance in technology and wisdom. Suggestions welcomed.

11:15 - 12:15 :

Curtis **Taylor** (Duke) and Samuel **Hafner** PRESENTER(Basel),

“Contracting for Research: Moral Hazard and the Incentive to Overstate Significance” samuel.haefner@unibas.ch, crtaylor@duke.edu

Discussant: Ayça **Kaya** (Miami)

*Abstract A principal contracts with an agent, who is protected by limited liability, to acquire information concerning the desirability of investing in a project. To motivate the agent to perform the required research, it is necessary to offer him a schedule of contingent rewards that depend on his reported unverifiable findings and on the project's ultimate outcome. While the contingent rewards can be calibrated to solve the moral hazard problem ex ante, they endogenously create an adverse selection problem ex post. In particular, they generate an incentive for the agent to exaggerate the significance of his research findings, leading to another source of agency rents. The principal mitigates these rents by committing to ignore reports of extremely positive or extremely negative findings; i.e. extreme reports of either kind are bunched. Thus, the principal commits to under-utilize some of the agent's potential information.*

The agent can exert effort to get a signal k or not, and then continuous outcome alpha is observed. No effort. Agent is hired before he chooses his effort level. Then, after seeing the signal, he tells the principal what the signal is, possibly lying. The principal then picks an investment level, which affects the probability the project succeeds, but not its value if it does succeed (important--- in many situations, you want to spend nothing on a bad-looking project, but lots on a good-looking one, increasing returns to investment in project quality). Then, the principal pays the agent depeending on the contract, which is bsaed on the reported signal and whether the project succeeds or fails (again, important assumption: if the project can succeed to different degrees, then that will help reveal info about the signal quality).

 Limited liability is important. What the principal would like to do is pay the agent a lot if the project succeeds and make him pay a penalty if it fails, to give him incentive to tell the truth. So we need to pay him an efficiency wage, to give him big base pay so he can afford to pay a penalty if the project fails. Then, too, the agent is willing to invest in effort to get a signal, because if he gets a favorable enough signal, on average he does better with a successful project than an unsuccessful one.

 So the agent wants to invest to get a chance at recommending a good project, but if he gets a bad signal he doesn’t want to bet on the project succeeding.

Proposition: The principal should ignore extremely high or low outcomes, pooling there.

 Why? Very good signals are treated like moderately good ones because the prinicpal wants to commit to not spending a lot to guarantee project success when it isn’t really a good project.

 Make it clear that the pooling with the bad signal is that hte project is still undertaken, but there is a minimum amount of investment used. The model may or may not have zero investment below a certain level, too. I thought it did, but I was probably wrong. Maybe work on making that clear. In that case, very bad report leads to zero invesmtnet, but at some level it jumps to minimum level, then at some level rises contiuosly, then hits high max level.

 I don’t get how it works on the low side. Aha—I asked this and the asnswer wsa good. The principal wants to get info on whether the agent really acquire the signal or not. If the principal invests very little when he undertakes th eporject, it will probably fail regardless of its quality. So he invests somehwat more, to give it a chance, and so it failure is more likely due to its intrinsic quality.

 I’ve just been reading *Bad Blood,* which is on this topic, a very good book about Elizabeth Holmes and THeranos and how she got investors to put up millions na d millions for her unsuccessful company, which couldn’t get its technology to work. I need to order *Smartest Guys in the Room* about Enron, recommended as no. 1 business book.

Are efficiency wages related? My paper below is not, but it would have the references that are, on loss of high wages if you are cuaght cheating:

 ``An Income-Satiation Model of Efficiency Wages,'' Economic Inquiry (July 1992) 30(3): 467- 478. Efficiency wages are wages that exceed a worker's reservation wage. A standard explanation for such wages is ``bonding'': by increasing the worker's fear of discharge, high wages increase the worker's cost from punishment. A neglected alternative is ``satiation'': by decreasing the worker's marginal utility of income, the high wage decreases the benefit from misbehavior. Satiation, unlike bonding, applies even in a one- period model, but it relies on the misbehavior having a monetary benefit and on at least part of the punishment being nonmonetary <http://rasmusen.org/published/Rasmusen_92ECINQ.effwages.pdf>

Everybody needs to read or reread my “Aphorisms on Writing, Speaking, and Listening” <http://www.rasmusen.org/GI/reader/writing.pdf> . I need to do a new edition of them, with advance in technology and wisdom. Suggestions welcomed.

12:15 - 1:00 :

LUNCH (Royal Sonesta)

Shuttle service to MIT begins at 12:45

Afternoon Session at MIT Building E62-223 (Sloan School)

1:30 - 2:45 :

PRESENTER Nima **Haghpanah** (Penn State) and Jason Hartline (Northwestern), **“When is Pure Bundling Optimal?**”

Discussant: Jidong **Zhou** (Yale)



*We study when pure bundling, i.e., offering only the grand bundle of all products, is optimal for a multi-product monopolist****. Pure bundling is optimal if consumers with higher value for the grand bundle have lower relative disutility for consuming smaller bundles.*** *Conversely, pure bundling is not optimal if consumers with higher value for the grand bundle have higher relative disutility for consuming smaller bundles. We prove the results using a decomposition approach that relies on identifying binding incentive constraints with multi-dimensional heterogeneity.*

nima.haghpanah@gmail.com, hartline@eecs.northwestern.edu, jidong.zhou@yale.edu

Haghpanah and Zhou are both good at epxlaining things.



This paper applies to multi-unit bundling too (block pricing), as in Figure 1. Figure 1 is the key to understanding hte paper. Pure bundling is best in Figure 1a, but not in 1b, wher e it is better to offer good 1 separtely, to get hte two consumers with + on them.

 I feel pretty shaky about all of this, thinking I often have it bkacwards, but I offer it for what it’s worth.

Bundling helps when valuations are negatively correlated. Pure bundling is generically not optimal--- McAfee et al 1989. Mixed bundling is better.

In this model, though, the grand bundle gb of x1 and x2 is worth more than x1+x2. That makes a big difference. What matters is R=v\_1/v\_gb. For pure bundling, we want R to rise in v1--- types with big v1 also value it RELATIVELY more compared to the grand bundle.

Why is that? The R condition says there aren’t any peculiar consumers who wouldn’t buy the grand bundle at a high price but would buy good 1 at a medium price.

This is related to the Coase Conjecture.

Another angle perhaps worthy of study, perhaps not, is when there is a fixed cost of offering each bundle or product. Then, even if there do exist a few consumers who don’t satisfy R, pure bundling is still optimal. This allows for looking at the correlations between v1 and v\_gb rather than requiring that all consumers lie in a region--- or, maybe in this paepr, it’s putting all the consumers on a given line relating v1 to v\_gb. No--- the Main Theorem is about “stochastically increasing” R in v1. So if we take a given v1, there is a probability v\_gb is above the crucial curve, and that needs to be big enough. Proposition 1 applies if all the types lie on a curve, and Theorem 1 applies generally, saying we just have to have ENOUGH consumers of a given v1 ABOVE the curve.

 So I was confused. The paper DOES go beyond having all the consumers on a 1-dimensional line. I was just thinking of another way it could do it, and I was wrong. You don’t have to worry about there being a few peculiar consumers if to try to get them you’d have to lose more consumers with the same v1 who are not peculiar.

 Rough intuition: If the loss in value from not buying one of the goods is negatively correlated with the value of the bundle, then pure bundling is good. Maybe I got that backwards. I find it easier to think about R=v1/v\_gb, tho I see how you’re trying to relate this to the old intuition that you want to bundle if values v1 and v2 are inversely correlated.

This is multidimensional screening. Applied math and computer science people are very interested in it, and they come up with “pretty good” schemes.

Zhou:How would I teach this to my students? He makes a two-type model with symmetric goods, v = value of either good by itself, V= utility of hte grnad bundle of both. Type alpha has values (v\_alpha, V\_alpha), type beta same idea, ith v\_\alpha < v\_\beta and V\_\alpha <V\beta. k is the proportion of low valuing consumers.

Everybody needs to read my “Aphorisms on Writing, Speaking, and Listening” <http://www.rasmusen.org/GI/reader/writing.pdf> . I need to do a new edition of them, with advance in technology and wisdom. Suggestions welcomed.

2:45 - 4:00 :

**David Martimo**rt (Paris School of Economics), Jerome **Pouyet** (Thema-CNRS, ESSEC, Univ. Clergy-Pontoise), and Lars **Stole** (Chicago GSB), **“Screening Contracts as a Barrier to Entry**”

Discussant: Nicolas **Schutz** (Mannheim)

martimort.david@gmail.com, pouyet@essec.edu, lars.stole@chicagobooth.edu,nicolas.schutz@gmail.com

4:00 - 4:15 :

BREAK

*Abstract* ***A seller contracts with a downstream buyer under the threat of upstream entry.*** *The buyer has private information on his downward sloping demand and on the efficiency gains of entry. Strategic and screening concerns interact in the design of nonlinear contracts. We provide a rationale for the use of rebates, discounts and minimal purchase requirements under various contracting scenarios. With* ***marketshare contracts,*** *the incumbent designs nonlinear tari
s that depend on whether the buyer also purchases from the entrant or not. Screening distortions are mitigated and the incumbent's marginal prices come closer to but remain above marginal cost when entry occurs.* ***Entry is inefficient, reduced*** *to decrease the buyer's information rent, but it remains positively correlated with consumption. When restricted to offer a single nonlinear tariff whether the buyer also purchases from the entrant or not, the incumbent face a conflict between preventing entry which is now costly and screening. Entry is no longer positively correlated with consumption and marginal prices may be lower than marginal cost. The* ***optimal contract shares key features of an all-unit discount tariff.***

All unit discounts. , Virgin v. Briitsh Airways, Michelin, Intel in Europe. All-Units Discounts:

Experimental Evidence from the Vending

Industry,” Christopher T. Conlon† Julie Holland Mortimer‡ January 16, 2014:

*We study an All-Units Discount, in which a downstream firm pays a linear wholesale price up to a quantity threshold, beyond which a discount applies to all future and previous units. The result of the contract is that marginal cost downstream is effectively negative over a quantity range. Such contracts are common in many industries, and we implement a field experiment in one such industry (confections), in which we remove top-selling products from a market in order to identify the potential efficiency effect of the contract. We combine the experimental variation with a structural model of demand and a dynamic model of the retailer’s re-stocking decision to identify* ***cases in which the contract results in either efficient or inefficient exclusion of competing products****. We show how the contract allocates the* ***cost of a stock-out*** *between upstream and downstream firms, and find evidence of inefficient exclusion. Finally, we point out that the impact of upstream mergers in these markets is likely to be felt not through the price in the final-goods market, but rather in the wholesale market. We examine the impact of various upstream mergers on the willingness of the dominant firm to offer rebate contracts, and the impact that the rebate contracts have on social welfare.*

 Figure 4 shows total price (not per unit) depending on amount bought. The per-unit price drops at q\_b, so nobody would buy just a little less than that. A lot of types of consumers will end up buying exactly q\_b. That is convenient for the seller, in terms of transaction cost. This is like buying stock in 100-unit blocks.

 A **“market share contract”**: There is one price schedule for buying exclusively from the incumbnet, another one if the customer also buys from someone else. So this is kind of like a exclusive-dealing or requirements contract.

Rochet and Stole (2002): Monopoly who doesn’t know customer type and where there is an exogenous random outside seller.

The present paper is like Aghion Bolton because the incumbent signs a contract with the customers that makes it expensive for the customers to switch to the entrant (to switch PARTLY to the entrant, here; the entrant has to start with limited capacity maybe)

Q: In Aghion Bolton, the gains from the contract are split between Incumbent and Customer. It looks like the same could happen here.

 In fact, the buyer does need to get something in exchange for signing the contract, because the entrant might not enter because of the switching payment and that owuld hurt he customer. I think the paper has this idea. The contract has to be generous enough that hte customer will accept it.

 I don’t understand how this works. Suppose the entrant decides not to enter. Will the incumbent then wish to reduce the price?

The story: The buyer and incumbent sign a contract specifying that if the buyer buys anything from the entrant, he has to pay X to the incumbent. Then the entrant, who has lower MC, finds out his entry cost and decides whether to enter or not. If he does, he gives the buyer a low price and the buyer buys some from him and pays X to the incumbent. If he does not enter, the buyer just keeps paying a moderate price to the incumbent.

Demand is unknown in advance in part of this paper.

 I have not been able to get the following paper to work very well, and have put it aside, but you might find it interesting. It is about an interesting subject, in any case: why are “requirement contracts” used in situations where there does not seem to be any intent to exclude entry? Maybe you can find a better answer than mine.

**``Why Use Requirement Contracts? The Tradeoff between Hold Up and Breach.''** A requirements contract is a form of exclusive dealing in which the buyer promises to buy only from one seller if he buys at all. This paper models a most common-sense motivation for such contracts: that the buyer wants to ensure a reliable supply at a pre-arranged price without any need for renegotiation or efficient breach. This requires that the buyer be unsure of his future demand, that a seller invest in capacity specific to the buyer, and that the transaction costs of revising or enforcing contracts be high. Transaction costs are key, because without them a better outcome can be obtained with a fixed- quantity contract. The fixed-quantity contract, however, requires breach and damages. If transaction costs make this too costly, an option contract does better. A requirements contract has the further advantage that it evens out the profits of the seller across states of the world and thus allows for an average price closer to marginal cost. <http://www.rasmusen.org/papers/requirements-rasmusen.pdf>.

 The following two papers are both on Exclusion reasons for market-share contracts.

Chen, Z. and G. Shaffer (2014). \Naked Exclusion with Minimum-Share Requirements,"

The RAND Journal of Economics, 45: 64-91.

Chen, Z. and G. Shaffer (2016). \Are Market-Share Contracts a Poor Man's Exclusive

Dealing?", Unpublished Manuscript.

 I wonder if the puzzle over why market-share contracts are used might be due to efficiency reasons for them. I guess it oculd be the same as for exlcusive dealing contracts. **What are the efficiency reasons for those in business to business contracts?** If it is just a quantity contract, then the fixed cost of dealing with a customer is a justification. Also, the incumbent might want to build capacity to serve a customer, but allow him to get out of buying if the customer’s demand is small, so they agree to share the losses if that happens by paying a higher per unit price if the quantity demanded is reduced a lot. But why have the actual reduction in total price going from 99 to 100 units?

See which if the 8 or so efficiency reasons might appyl: "Exclusive Dealing: Before, Bork, and Beyond," with J. Mark Ramseyer. *Journal of Law and Economics,* 57(S3): S145- S160 (Aug. 2014). Antitrust scholars have come to accept the basic ideas about exclusive dealing that Bork articulated in The Antitrust Paradox. Indeed, they have even extended his list of reasons why exclusive dealing can promote economic efficiency. Yet they have also taken up his challenge to explain how exclusive dealing could possibly cause harm, and have modelled a variety of special cases where it does. Some (albeit not all) of these are sufficiently plausible to be useful to prosecutors and judges. <http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2308218>

.

Figueroa, E. and J.P. Montero (2014).”Discounts as a Barrier to Entry," Mimeo PUC.

<http://www.economia.puc.cl/jmontero/research>.

Calzolari, G. and V. Denicolo (2015). “Exclusive Contracts and Market Dominance," The

American Economic Review, 105: 3321-3351. Also on exclusion motivations.

Commenter thought AB needed commitment. I don’t think Aghion-Bolton needs commitment. What would happen with renegotiation is that the entrant would succeed in entry and the incumbnet would reduce his output, maybe to zero, but make big profits anyway from the liquidated damages. I guess in an asymmetric info version of AB, maybe commitment is helpful for reducing the entrant’s informational rent, but I’m not sure. But no--- this doesn’t look like commitment. Suppose a monopolist makes an offer to a consumer of a price of $10, not knowing the consumer’s value. In a one-shot offer, the consumer rejects if his value is less than $10. Do we say that the monopolist commits to just making one offer in that model? No. We are trying to model a situation in which the monopolist has all the bargaining power. If the monopolist cannot commit, what happens? Without discounting, in a finite-period model he just waits till the last period, adn that’s the only serious offer. In an infinite period model, it’s not clear what happens. With discounting, it’s like a finite period model, because delay creates loss of value veyr similar to the loss from not selling at all. Using one period iwth a take-it-of-leave it offer is just a modelling convention, not meant to be taken literally. I discuss this a little in my current working papers on bargaining:

**"Back to Bargaining Basics."** Nash (1950) and Rubinstein (1982) give two different justifications for a 50-50 split of surplus to be the outcome of bargaining with two players. I offer a simple static theory that reaches a 50-50 split as the unique equilibrium of a game in which each player chooses a ``toughness level'' simultaneously, but greater toughness always generates a risk of breakdown. Introducing asymmetry, a player who is more risk averse gets a smaller share in equilibrium. If breakdown is merely delay, then the players' discount rates affect their toughness and their shares, as in Rubinstein. The model is easily extended to three or more players, unlike earlier models, and requires minimal assumptions on the functions which determine (a) breakdown probability and (b) surplus share, as functions of toughness. <http://www.rasmusen.org/papers/bargaining50.pdf>

**Mixed-Strategy Equilibria in Splitting a Pie**, with Christopher Connell. We characterize the mixed-strategy equlibria in the classic bargaining game, "Splitting a Pie" and derive for the first time the symmetric equilibrium of mixing over a continuous interval of shares. <http://www.rasmusen.org/papers/mixedpie.pdf>

Everybody needs to read my “Aphorisms on Writing, Speaking, and Listening” <http://www.rasmusen.org/GI/reader/writing.pdf> . I need to do a new edition of them, with advance in technology and wisdom. Suggestions welcomed.

4:15 - 5:30 :

Rachel **Kranton** (Duke) and David **McAdams** (Duke),

**“Social Networks and the Market for News”**

Discussant: Erik **Madsen** (NYU) emadsen@nyu.edu, david.mcadams@duke.edu <david.mcadams@duke.edu>; rachel.kranton@duke.edu

 No abstract or emails yet! Make them high priority. I’ll just look them up. I’ll get hte photos that way too.



 Before hearing the model, I think an important part would be that often a news vendor wants to convey a false message, but also has to worry about losing his customers if he lies TOO much. **The more talented, low-cost, and high-quality news vendors can be expected to lie the most,** because they have those other strengths that let them keep customers anyway. In your model, bias is not explicit, but there is a cost of veracity, and that cost could be the opportunity cost of not being able to convey the lies you want people to believe.

 A good example of a high c\_R story is the Theranos story in the book B*ad Blood*. The WSJ knew that Theranos was litigious and had the famous Boies law firm trying to intimidate people nad was not shy about using its political connections. But it was a great story.

 **This is a model of Twitter.** The consumer decides whether to retweet an interesting news story. He evaluates the story and retweets if he thinks the probability is high enough that it is true.

 You might like a blog post of mine on **“truthful lying”**:

<https://warhornmedia.com/2018/09/07/would-the-new-york-times-ever-lie/>

 It’s related to the contrast between “being literally true but effectively false” and being “literally false but effectively true.” I am thinking of making this a montly blog post, every timewith a new example and technique for lying.

 You assume there is a fixed benefit of retweeting true news and penalty for retweeting false news. That’s fine for sipmlicity. But maybe it would matter if you get little credit for retweeting obviously true news that is true and get big crdit for retweeting dubious news that turns out to be true. That is, your friends may reward you for sending htem useful information, and not reward you much for sending them near-useless information (maybe they should penalize you for clogging their inbox or twitter feed!).

  Info jamming is when you put you lots of fake stories so people don’t konw what to trust. Or, like the Chinense with short-wave radios, simple jamming.

 I was just reading some biologist on Twitter who was saying how proud he was that biology was using lots of techniques now that are purely biological, not coming from the chemists--- DNA enzyme cutting and that kind of thing, where the substances used are created by living things.

 Don’t call the zero equilibrium “the trivial equilibium”. It is, sort of, but it’s realistic and important, tho simple. It’s like the no-trust equilibrium in a reputation product quality game or the bad equilibirum in repetaed pridsoner’s dilemma, or the “reject all new clauses” equilibirum in my contract-reading paper.[[1]](#footnote-1)

 My brain has slowed down considerably. The presentaiton is good, but I’m not getting it. Ah—there is a general variable “news veracity” for ALL news outlets, no individual reputations. If veractiy p0 is bigger than some amount rho, then you’ll not bother to evaluate—you’ll just rewtweet. If veracity is too low, you;ll also not bother—you’ll never retweet. Or maybe there is just one news outlet in this model?

Payoff functoins:

 1. VIEWS. The newspaper is paid by views, meaning retweets are what it wants. ADS.

 2. ADOPTION. The newspaper is paid by adoption, meaning that ...

Equilibrium: in a large markets with ads VIEWS being the payoff, one equilibirum is with zero truth, no retweeting, and another is at the lower boundary of newspaper veracity, so people are just barely willing to retweet. I guess how many others retweet doesn’t matter. AHA—discussant Eric tells us that it is because if the network is big, someone will retweet it by mistkae (or evaluate it wrong), so news organizations will produce news at a low quality level.

NOT

“Consumers' sharing decisions **impact** the producer's incentive to invest

in story quality, by changing the visibility of true and false stories.”

INSTEAD say

 “Consumers' sharing decisions **affect** the producer's incentive to invest

in story quality, by changing the visibility of true and false stories.”

 “In 1940, Britain deployed three thousand operatives to the United States to spread (sometimes false) propaganda under the guise of bona de news reports (Boyd (2006), Cull (1995)), as a way to drum uppopular support for entering the war e
ort against Nazi Germany.”

 I htink Britain did this in a big way too in WW I, with stories on how badly the Germans were treating the Belgians. “Much of the wartime publishing in Britain was in fact aimed at attracting American support.[17] A 1929 article in The Nation asserted: "In 1916 the Allies were putting forth every possible atrocity story to win neutral sympathy and American support. We were fed every day [...] stories of Belgian children whose hands were cut off, the Canadian soldier who was crucified to a barn door, the nurses whose breasts were cut off, the German habit of distilling glycerine and fat from their dead in order to obtain lubricants; and all the rest."[17]” <https://en.wikipedia.org/wiki/Rape_of_Belgium>

“then in an extension allowing for producers also to be paid per consumer who chooses to “adopt" based on their story (Section 5).”

 You need to say what “adoption” means when you first use it, which might be in this sentence.

SO: “adoption” means the person not only sees the story (because someone retweets it to them), but also **believes** it (which depends on HOW MANY people retweet it). If news quality is low, then people iwll only retweet by mistake, so in a large network everyone will see the story on the ads, but they’ll also see that only a few people retweeted it, so they won’t believe it. That’s fine for some newspapers, but if the newspaper wants its readers to change their minds, it will want to have a reputation for accuracy, so more people will retweet.

 This paper works for product quality too, where osmeone wants to recommend good products. And, I think, it also works for entertainment quality of the news story. Some people retween boring, obvious, stuff. Others have good taste. Beautiful pictures for examples, versus cute cat videos. In Twitter, I want to follow people with high AVERAGE tweet quality, and high QUANTITY is a bad thing if most tweets are boring.

 

 Everybody needs to read my “Aphorisms on Writing, Speaking, and Listening” <http://www.rasmusen.org/GI/reader/writing.pdf> . I need to do a new edition of them, with advances in technology and wisdom. Suggestions welcomed.

 One implicit suggestion was that you should **use color on your sides to highlight parts of equations**. That’s what was done in this slide, but my camera quality is too low to show the green, it seems.

I should also mention the technique of **using a presentation to advertise one’s other work**, not just the paper being presetned. It’s a good idea. A lot of the time, especially in a short conferene presentaion, you’re basically saying “Here’sa topic I’m working on”, because you don’t have enough time to make people undertand your idea--- only the general topic--- and the idea is that they can ask you for details later, and you can find out if someone else is working or has worked on that topic.

5:30 - 6:00 :

JIE Fellow presentation: Alex **Smolin**  alexey.v.smolin@gmail.com

Without a paper, and having run out of coffee I was too tired out to understand much this late in the afternoon. Sorry, Alex!

Maybe it was this paper, but I realized I could look for it too late, and you have lots of pappers!

Disclosure and Pricing of Attributes

Alex Smolin

University of Bonn

October 2017

Alex sent me the latest draft later that day.

Everybody needs to read my “Aphorisms on Writing, Speaking, and Listening” <http://www.rasmusen.org/GI/reader/writing.pdf> . I need to do a new edition of them, with advance in technology and wisdom. Suggestions welcomed.

6:00 PM :

RECEPTION and CONFERENCE DINNER

SAMBERG CENTER; E52 7th floor



Good food. quinoa in bell pepper and the spinach with cherry tomatoes served with the delicious sliced beef and horseradish sauce , especially. **Sam Adams light lager** is quite good. So is the **Tunnel of Elms cabernet**, which is also very cheap. Intro pricing for a new good? Wines should do that.

Sunday November 18

MIT Building E62-223 (Sloan School)

8:00 - 8:30 :

CONTINENTAL BREAKFAST (at conference site)

8:30 - 9:45 :

Joyee **Deb** (Yale), Aniko **Ory** (Yale), and Kevin **Williams** (Yale),

**“Aiming for the Goal: Contribution Dynamics of Crowdfunding**”

 Discussant: Leslie **Marx** (Duke)

 marx@duke.edu

 joyee.deb@yale.edu, aniko.oery@yale.edu, kevin.williams@yale.edu

Abstract We study reward-based crowdfunding campaigns, a new class of dynamic contribution games in which consumption is exclusive. Thus, the key tension is one of coordination, instead of free-riding. Two types of backers participate: buyers want to consume the product while donors just want the campaign to succeed. We analyze a dynamic model of crowdfunding and demonstrate that its predictions are consistent with high-frequency data collected from Kickstarter. The Kickstarter mechanism makes all players better off compared to alternative platform designs. We extend the model to incorporate social learning about quality, which reduces the donor’s ability to coordinate buyers’ actions.

 1. Seller makes a proposal.

 2. Buyers arrive by a Poisson process in continuous time. They decide whether to subscribe, “pledge”, meaning they put up P, which they either get back later at T or get the product instead. They lose the use of the money in the meantime, which costs them v0. So they only pledge if they expect success.

 3. The donor can decide at any time whether to make a pledge to donate. He will decide whether he wants to make up the gap and make the project succeeds. He gets W for success, and nothing for failure, in utility. Nobody but the donor knows W (Bill Rogerson’s interpretation).

 I missed this crucial fact: Does the donor get his money back if it’s not needed? Yes, apparently, so he doesn’t want to pledge more than he has to. –This sounds like a bad setup for attracting donors. It would be better to tell them that they will get their money back if it’s not needed. See the Elephant’s Debt GofundMe campaign I’ve excerpted below--- donors get their money back, proprtionatley, if the $10,000 goal donations aren’t needed for legal fees. Contrast that with the Peter Strosk GoFundMe $500,000 campaign, also for legal funds, but where it will probably turn out the legal fees are zero (unless he’s indicted) and the site says he’ll get to keep the money. (I think the woman in the Cavanaugh hearing might have a campaiang too---she did get on the order of a million dollars in donations, and apparently all her legal work was paid for separately by anonymous donors or pro bono.) So: for your model, you maybe should make donors like buyers, who don’t want to have their funds temporarily tied up as pledges if the campaign is going to fail.

 So the donor might want to donate early so as to encourage buyers. In fact he does, in equilibrium, usually.

Tell a few stories of psosible realizations of the game as a way to explain your model:

**The Widget Campaign.** There’s lots of time. Early buyers do pledge. So later buyers are sure it will get enough buyers, so they pledge too. The campaign ends early. The donor doesn’t donate anything.

**The Wodget Campaign.** Some buyers pledge, but then the deadline looms. So the donor makes a small pledge. That encourages the existing buyers, so they pledge. Time passes. Another buyer shows up and decides it’s too close to T to buy. The donor therefore pledges some more, encouraging that buyer, who pledges. More time passes. Another buyer appears and pledges. More time passes. Another buyer appears and it’s too close to T, so he waits to see if the donor pledges more. The donor, however, has already pledged a total of W, so he doesn’t do anything. So no future buyers pledge, and the campaign fails.

**The Wadget Campaign.** The donor pledges a lot right at the start. This is because buyers all expect him to, and if Goarrive, and the project succeeds. (In another realizaiton, maybe not enough arrive, and it fails.)

A good interpretation of v0 is as transaction cost. The buyer doesn’t want to bother to have to post P and then check later and see if the project succeeded and keep track of everything and make sure he gets his money back if it fails.

Teh Properites of equilibrium slide is good. Put it up earlier. Number all slides (so I could have referrred to the slide number).

Your quality model has a very nice intuition about buyer pledges signalling quality only if success is not too likely.

 See the recent work on the taxation of crowdfunding. What does Kickstarter say about it? GofFundMe takes the easy way out and denies its taxable. Possible liability to taxpayer who relies on that?

 In 2018, Peter Strzok was fired from the FBI, based on text messages that he sent degenerating President Trump. A week later, a group set up a GoFundMe page soliciting funds to help with his “legal costs” and to replace his “lost income.” As of early September, that fund had raised over $450,000. **GoFundMe states on its website that donations made are usually considered to be “private gifts” and not taxable to the recipient.** Using Mr. Strzok’s campaign as an example, this article will discuss the current standards for determining whether a transfer qualifies as a nontaxable gift and the policy rationale for the exclusion of gifts. The article argues that, contrary to the common conception of what qualifies as a gift for tax purposes, there are some circumstances in which the intention of the transferor should not control the characterization. Instead, in those circumstances, the role of the transferee should control**. The article concludes that GoFundMe’s position is incorrect** and funds collected using GoFundMe (and other crowdfunding websites) should be treated as income to the recipient.

**Kahn, Jeffrey** H., **GoTaxMe: Crowdfunding and Gifts** (October 24, 2018). Florida Tax Review, 2019; [https://ssrn.com/abstract=3272361](https://ssrn.com/abstract%3D3272361)

**“It’s better to know the solution than the problem.”** For some reason, the projector computer logged out and showed Emily Manning as user and asked for her password. Why? Nobody knew. The solution? Have an MIT guy log in under his name instead.

**Strausz,** Roland, “A Theory of Crowdfunding: A Mechanism Design Approach with Demand

Uncertainty and Moral Hazard,” American Economic Review, June 2017, 107 (6), 1430–76.

<https://www.washingtontimes.com/news/2018/jun/15/theres-no-spinning-peter-strozks-anti-trump-well-s/>

“I want to believe the path you threw out for consideration in Andy’s office - that there’s no way he gets elected - but I’m afraid we can’t take that risk,” **Strzok texted** on Aug. 15, 2016. **“It’s like an insurance policy** in the unlikely event you die before you’re 40.”

So **Strzok, the man helping to exonerate Hillary Clinton and now in charge of the Trump/Russian FBI investigation says “we’ll stop” Trump from getting elected and “we can’t take the risk” if he does so we better set up an “insurance policy” just in case.**

Finally, and possibly most damning of all, the “We’ll stop it” text m**essage was completely omitted from Justice Department disclosure to congress** that Republicans had been begging, cajoling and threatening the DOJ for over several months:..

This was also about 8 days into the Trump investigation. It was in early August of 2016. They were both on the investigation. And by the way, the Inspector General is critical of the FBI’s decision to take the very same people who had just finished the Hillary Clinton investigation in early July, in late July and put them on the Trump investigation. **The Inspector General says surely there were other people in the FBI that they could have put on this investigation, but they put the people who had just exonerated Hillary Clinton on.”**

<https://www.gofundme.com/peterstrzok>

Support for FBI Veteran Pete **Strzok**

$448,162 of $500,000 goal

Raised by 11,709 people in 3 months

Peter Strzok, a man who has spent his entire life working to help keep us and our nation safe, has been fired. He needs your help.

For the last year, Pete, his work, and his character have been the target of highly politicized attacks, including frequent slanderous statements from President Trump, who actively—and apparently successfully—pressured FBI officials to fire Pete.

All funds raised on this GoFundMe will be put into a trust dedicated to covering Pete’s hefty – and growing – legal costs and his lost income. ...

\*Please note: Due to federal ethics regulations as applied to the Securities and Exchange Commission (“agency”), any donation whose source cannot be determined or which falls into one of the categories below may be returned. Any aggregate donation of $390 or more will be publicly disclosed. We cannot accept donations from any “prohibited source”

 Here’s the one where I’m a *hidden* donor. I think my presence would discourage donations (free rider problem) and encourage the plaintiffs to hold out for better settlment terms, though later I might want to reveal myself to signal deep pockets for the defendants, again, for settlement bargaining.

<https://www.gofundme.com/the-elephant039s-debt-legal-defense>

The Elephant's Debt Legal Defense

$8,190 of $10,000 goal

Raised by 59 people in 22 days

In October 2018, Pastor James MacDonald and Harvest Bible Chapel elected to file a lawsuit against the authors of The Elephant's Debt, against the authors' respective wives, and against a journalist by the name of Julie Roys. The lawsuit stems from online commentary provided by the authors at the website www.theelephantsdebt.com.

As this case winds its way through the system, the authors and their wives are going to incur ongoing legal costs that are needed to defend their case in Cook County, IL. These legal costs include everything from filing motions to issuing subpoenas, to taking depositions, and preparing for trial.

Furthermore, as the legal costs accrue, funds will be withdrawn on an as needed basis, and they will be distributed between Ryan Mahoney and Scott Bryant as the need dictates.

If you would like to financially support the authors and their wives, you may do so through this Go Fund Me campaign.

In the future, should additional funding be required, we will launch other small campaigns like this to pay the bills as they accrue. This is our way of trying not to raise too much money on the front end.

Finally, when the case reaches its conclusion, any money that was given by donors in excess of our legal fees and other related expenses will be returned to donors on a proportional basis.

We thank you for standing with us in this season.

Sincerely,

 Scott Bryant and Ryan Mahoney

Kickstarter. GoFundMe. The site becomes a store after the deadline, even though the site says in bodlface, “Kickstarter is not a store”.

“Crowdfunding is a relatively recent phenomenon.13” No .Books used to be sold by subscription, in the 1700s, routinely. See <https://publishingperspectives.com/2012/09/crowdscribed-com-an-18th-century-publishing-model-for-the-21st/> :

In the eighteenth century, English publishers printed the names of subscribers in the books they helped fund. Status seeking subscribers actually competed to be involved in the hottest publishing projects so that their names would appear next to the Duchess of York, Jane Austen, Edmund Burke and other big shots..

When American publishers in the 1820s turned down the opportunity to publish his water colors, John James Audubon raised the equivalent of $2 million from subscriptions, art sales, lectures and even the sale of furs to publish his celebrated Birds of America. If crowd funding was good enough for Audubon, it’s definitely good enough for us.

Shills are something to think about. A donation can be made in the ofrm of a fake purchase. Doest aht matter? Yes, in the qualty case. Otherwise, does it?

Everybody needs to read my “Aphorisms on Writing, Speaking, and Listening” <http://www.rasmusen.org/GI/reader/writing.pdf> . I need to do a new edition of them, with advance in technology and wisdom. Suggestions welcomed.

9:45 - 11:00 :

Michael Kremer (Harvard), Jon Levin (Stanford), and Chris Snyder (Dartmouth),

“Designing Advance Market Commitments for New Vaccines”

Discussant: Rich Gilbert (Berkeley)

11:00 - 11:15 :

BREAK

 mkremer@fas.harvard.edu,

 jdlevin@stanford.edu,

chris.snyder@dartmouth.edu

Abstract: Advance market commitments (AMCs) have been proposed as mechanisms to stimulate investment by suppliers of products to low-income countries, where familiar mechanisms such as patents and prizes can fall short. In an AMC, donors commit to a fund from which a specified subsidy is paid per unit purchased by low-income countries until the fund is exhausted, strengthening suppliers’ incentives to invest in research, development, and capacity. A $1.5 billion pilot AMC was undertaken to speed the roll out of a pneumococcus vaccine to the developing world covering additional strains prevalent there. This paper undertakes the first formal analysis of AMCs. We construct a model in which an altruistic donor bargains with a supplier on behalf of a low-income country over vaccine price and quantity ex post, after the supplier has sunk ex ante investments. We use this model to explain the broad logic of an AMC—as a solution to a hold-up problem—as well as to analyze specific features of the pilot’s design that we argue enhance its efficiency. We study a variety of design features including capacity forcing, supply commitments, price ceilings, and accrued interest, and consider a variety of economic environments including competing suppliers, competing demand from middle-income countries outside the program. We show that optimal AMC design differs markedly depending on where the product is in its development cycle.

 Holdup problem: A monopolist invests kQ in capacity and then produces a good at constant marginal cost c. It bargains with the single buyer for compensation, and in equilibrium will produce at capacity. This isn’t quite standard holdup, because of hte capacity constraint, and because of the bilateral monopoly. The holdup can be a good thing, because of the bilateral monopoly.

Actually, **this feature of hold up should be a standard model. Is it?** Here’s how it would work with just R+D. The company invests R or not. Then it bargains with the buyer, splitting surplus 50-50. Demand (marginal benefit) is linear and produciton cost has constant mc. What will happen is that they will agree to P=MC and that the Buyer will pay an “entry fee” of 50% of the consumer surplus, a two part tariff. How does this compare to a simple monopoly? It is the exact same profit for the seller. Using MC=MR, the seller would get half the potential consumer surplus, though the consumers would be left with only half that amount because price would be set too high and Q too low. So, holdup is really only a problem if the seller needs MORE than monopoly profit to cover R, PLUS he can price discriminate and get more than monopoly profit if there’s no bargaining. This is related to my work with David Myatt on isoperfect price discrimination, a litle (never finished paper). In the end, I’m wondering: Why do we think holdup is a problem?

 Gilbert commentor: **How about just having a prize, and then no patent?** The vaccine case is one where we know in advance that we’re willing to pay for it. And vaccine has close to zero marginal cost, I’m guessing. We don’t need to konw the vaccine’s exact value, just that it’s bigger than the development cost, and we have to know the development cost. **We could look at osme mixture of knowing about benefit and knowing about cost.**

 Gilbert: think about the government. How do people actually get the vaccine? Me: Maybe the government buys the vaccine at a low price and then resells it at a high price to its citizens, maximizing profit.

**It’s not clear how the AMC works.** The answer to Mike Whinston’s quesiton was very confusing. That’s why Bill Rogerson repeated it. If a billion dollars is to be given to the company if it sells the vaccine, then in the bargaining over the total price for the vaccine, what happens? I guess it will be half a billion dollars lower, with 50-50 bargaining power. That’s probably independent of whether it’s set up to be a price discount per unit or a lump sum, since the bargaining will boil down to a total price for the ex post efficient quantity.

 It isn’t hard to set up **a legal vehicle for money being used only for one purpose**. Just set up **a trust**, and in fact even if you don’t use a lawyer and make it formal, you’ve set up a “constructive trust” in some cases. To do it formally, you appoint a trustee to control the property, money, who for a reasonable fee is given control, but must use it for a partiuclar purpose with a beneficiary. The beneficiary can sue if it is not used for that purpose. You can also set it up so that if the money is not used for that purpose, there is a **secondary beneficiary** who gets all the money. Then that secondary beneficiary can sue, providing a backup layer of enforcement. Maybe “trust protectors’ would also enter in:

**“Trust Protectors -- What They Are And Why Probably Every Trust Should Have One”**

<https://www.forbes.com/sites/jayadkisson/2012/08/25/trust-protectors-what-they-are-and-why-probably-every-trust-should-have-one/#3c89303b5abc>

 The Kill Switch idea. You can’t let the donor get its money back if the vaccine turns out not to be good enough, if that’s nonverifiable in court, or the donor will always say it;s not good. But you can let the COUNTRY kill it by refusing to pay a small copayment, which it will only do if the vaccine is very bad.

AMC= Advanced Marketing Commitment

 I have a new bargaining model I’m very happy with, a simpler microfoundaiton than Rubsintein (1982) and not assuming the answer like Nash did. Also, my model works easily for N bargainers, unlike either Nash or Rubinstein.

**"Back to Bargaining Basics.**" Nash (1950) and Rubinstein (1982) give two different justifications for a 50-50 split of surplus to be the outcome of bargaining with two players. I offer a simple static theory that reaches a 50-50 split as the unique equilibrium of a game in which each player chooses a ``toughness level'' simultaneously, but greater toughness always generates a risk of breakdown. Introducing asymmetry, a player who is more risk averse gets a smaller share in equilibrium. If breakdown is merely delay, then the players' discount rates affect their toughness and their shares, as in Rubinstein. The model is easily extended to three or more players, unlike earlier models, and requires minimal assumptions on the functions which determine (a) breakdown probability and (b) surplus share, as functions of toughness.

 <http://www.rasmusen.org/papers/bargaining50.pdf>

11:15 – 12:30 :

Yair **Antler** (Tel Aviv) “**Multilevel Marketing: Pyramid-shaped Schemes or Exploitative Scams?**” Discussant: Michael **Grubb** (Boston College) yair.an@gmail.com, michael.grubb@bc.edu

*We identify the conditions on the tendency of agents to spread information by word of mouth, under which a principal can design a pyramid scam to exploit a network of* ***boundedly rational*** *agents whose beliefs are coarse. Our main result is that a pyramid scam is sustainable only if its underlying reward scheme compensates the participants based on multiple levels of their downlines (e.g., for recruiting new members to the pyramid and for recruitments made by these new members). Motivated by the growing discussion on the legitimacy of multilevel marketing schemes and their resemblance to pyramid scams, we use our model to compare the two phenomena based on their underlying compensation structure.*

 You need to rewrite this abstract. It makes it sound like the paper is just about pyramid schemes. The last sentence is the important one, though: what’s most interesting is how to distinguish legit scheme from pyramid schemes.

 It is interesting that **it is NOT necessary for legitimacy that the agent can get a positive payoff even if he does not recruit any new agents.** Suppose everyone lives one period and has opportunity cost C of becoming an agent, and they must cover that cost C by (a) selling the good, and (b) recruiting new agents. If people compete to become agents, their rents will be driven to zero, so their expected total compensation will equal C, which means they have to do some recruiting or their payoff will be negative. Of course, if there is a last period, this cannot work. But suppose ther are 10 periods. In the 10th period, the organizer will have to pay agents only bsaed on selling the good, not on recruiting. But in earlier periods, he can still base pay on both selling and recruitment. I don’t think he even has to commit to riasing selling pay in period 10, because it is in his interest to do so--- otherwise he will not any agents in period 10, because recruitment in period 9 will fail.

 Why would people fall into a pyramid scheme? In the model, because they are boundedly rational in the following sense: they know that they have to be able to make new recruits, but they falsely don’t realize that it can’t go on forever. For example, the setting might be that to make a positive payoff, the agent must recruit at least two new agents, but the size of the possible agent pool is finite. Then, it will eventually be impossible to recruit enough new agents. But the agents don’t realize that the agent pool is finite.

  **You can get a pyramid scheme to rationally succeed if people can’t tell the difference between a legit scheme and a pyramid scheme.** Suppose people don’t know if they can sell the product or not. They know they are taking a risk, so they need big commissions, which both the legit and the pyramid scheme will promise. They then discover whether they can sell or not. Our agents must be as cruel and dishonest as the pyramider. If so, they will recruit people anyway, so as to get back SOME of their training fee and opportunity cost.

 I think you have to also show a model in which legit companies use recruitment schemes since it seems pretty obvious that they do--- with companies like Amway, have people been fooled for decades? Plus, we see consumer recruitment used a lot, in which consumers are paid something for recruiting new consumers, with no “licensing fees”.

 How common are “license fees” anyway? Do Tupperware, Amway, etc. have them? A company that doesn’t could still be a pyramid, but only the sense that they’re underpaying their sales agents by luring them in with the hope of big recriutment bonuses.

 I looked up Amway, and they don’t seem to have required fees, just minor refundable ones and optional training. They do seem to suck in people who buy for their personal consumption and who get overenthused and pay for optional training. It’s unclear what their core profit is coming from. Many or most agents earn very little, but they probably also work very little; it’s flexible, like Uber. This is a precurson or Uber.

Abreu, D. and Brunnermeier, M. (2003): Bubbles and Crashes," Econometrica,

71, 173{204.. Joining an existing bubble can be rational.

Everybody needs to read my “Aphorisms on Writing, Speaking, and Listening” <http://www.rasmusen.org/GI/reader/writing.pdf> . I need to do a new edition of them, with advance in technology and wisdom. Suggestions welcomed.

12:30 PM : LUNCH (Box lunches available)

 Send notes to each person individually.

Hello, MIT conference people,

 I thought I’d ciriculate my first-day conference notes to the email list I’ve accumulated so far, in case there’s anhything we’d want to talk about on Sunday. I’ll send them out again at the end of hte conference, with whatever happens tomorrow. As always, my notes are idiosyncratic and it can be very hard to tell which are my ideas, which are hte speaker’s, and which those of other people, and often my notes are a better sign of what confusion I’ve fallen into than of anything that makes sense.

IHS,

 Eric

mw46@cornell.edu<Waldman>,

 kolba@indiana.edu,

 r.boleslavsky@miami.edu,

 kkim@bus.miami.edu,

**akolotilin@gmail.com** **,**

**az48@st-andrews.ac.uk****,**

samuel.haefner@unibas.ch,

 crtaylor@duke.edu,

nima.haghpanah@gmail.com,

 hartline@eecs.northwestern.edu,

jidong.zhou@yale.edu,

a.kaya@miami.edu,

yingni.guo@northwestern.edu,

bonatti@mit.edu,

martimort.david@gmail.com,

 pouyet@essec.edu,

 lars.stole@chicagobooth.edu,

nicolas.schutz@gmail.com,

emadsen@nyu.edu,

marx@duke.edu <marx@duke.edu>,

rjgilbert@berkeley.edu,

emadsen@nyu.edu,

 david.mcadams@duke.edu <david.mcadams@duke.edu>;

rachel.kranton@duke.edu alexey.v.smolin@gmail.com

 joyee.deb@yale.edu, aniko.oery@yale.edu, kevin.williams@yale.edu

mkremer@fas.harvard.edu,

 jdlevin@stanford.edu,

chris.snyder@dartmouth.edu

yair.an@gmail.com, michael.grubb@bc.edu

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

1. **"Explaining Incomplete Contracts as the Result of Contract- Reading Costs,**" in the BE Press journal, Advances in Economic Analysis and Policy. Vol. 1: No. 1, Article 2 (2001). http://www.bepress.com/bejeap/advances/vol1/iss1/art2. Much real- world contracting involves adding finding new clauses to add to a basic agreement, clauses which may or may not increase the welfare of both parties. The parties must decide which complications to propose, how closely to examine the other side's proposals, and whether to accept them. This suggests a reason why contracts are incomplete in the sense of lacking Pareto- improving clauses: contract- reading costs matter as much as contract- writing costs. Fine print that is cheap to write can be expensive to read carefully enough to understand the value to the reader, and especially to verify the absence of clauses artfully written to benefit the writer at the reader's expense. As a result, **complicated clauses may be rejected outright even if they really do benefit both parties, and this will deter proposing such clauses in the first place.**

In tex and pdf ( <http://rasmusen.org/published/Rasmusen_01.negot.pdf> [↑](#footnote-ref-1)