## **LECTURE**

## BARGAINING FAILURE AND FAILURE TO BARGAIN

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Thanks everyone for getting here early in the morning. There are several people in the audience that I should thank. I want to single out Jim Bessen, Peter Menell, and T.J. Chiang. Their writing on notice and patent law has influenced much that I'm going to talk about today. I have also benefitted from the writing of Henry Smith and Clarissa Long on information costs and property rights. What I will say today is a mix of some new and also some of the old work that I've done with my co-authors.

In this talk I want to do four things. First, I'm going to present a motivating example, and second I will discuss what causes IP litigation. I want to distinguish between bargaining failure and failure to bargain ex ante. This is the descriptive portion of my project, and the message is really pretty simple. In law and economics, we think a lot about why people who have a dispute, who sit cross from each other at a table, fail to do the efficient thing, which is to stay out of the courtroom and avoid incurring litigation costs.

Law and economics scholars have a lot of explanations about why that kind of bargaining failure occurs, but actually quite little thought has gone into the questions of: When do these people *find* each other? How do they find each other? Will they get to the bargaining table? Coase, in his transaction cost paper, actually described this as "discovery cost." He had little to say about it in that paper, and not many scholars subsequently have picked that up. That's where I'm entering the academic literature—trying to think more about failure to bargain, especially failure to bargain early. What explains when and how people get together, at an early date, to deal with an IP dispute?

Third, in a normative vein, I will talk about whether we should reform IP law to encourage early bargaining. I want to talk about the gains to ex ante bargains, and the incentives to search out partners, match with them, and then actually bargain. How can the law affect those incentives?

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<sup>&</sup>lt;sup>1</sup> R.H. Coase, *The Problem of Social Cost*, 3 J. L. & ECON. 1 (1960)

To conclude, I will briefly describe policy levers that might be used to address failure to bargain.

So let's talk about a detailed motivating example, the *Betamax* case.<sup>2</sup> I picked this case because I think it presents an interesting example of successful early bargaining, and at the same time failed early bargaining. Also, I've picked this case because it is well-known to IP scholars. The dispute pitted Sony against Hollywood movie studios. The movie copyright owners objected to copies made by consumers using the Betamax video recorder. The case made significant contributions to the fair use doctrine and contributory liability in copyright law.

The first thing I want you to observe that you probably *don't* know is that when Sony and other consumer electronics companies were designing what became the VCR, they met early and they cross-licensed their patents. They recognized that down the road there might be an IP dispute involving patents, but they bargained early and they cross-licensed all of the relevant patents that they had in their portfolios that might relate to the VCR.

Development of the Betamax and the VHS occurred along with the video disc system, and after the Betamax had been designed and was offered for sale a couple of movie companies brought a lawsuit. And I wonder: Why did the parties effectively handle patent issues in advance, but fail in advance to deal with the copyright issues?

There are going to be lots of answers to that question, and everyone in the audience will find their own answer to the question I just asked. But I want to trace out the answers to that question so that I can then think about policy, and how it might connect to this question of why was there a bargaining failure.

So, why should Sony care whether a looming copyright dispute is resolved ex ante or ex post? That's the first question that I've got to answer, and I think that Sony had an *opportunity* to design a product that would avoid liability. Sony had an opportunity to find people with IP rights with whom Sony could cooperate to create more joint value. They might have done that by making commercial-skipping more difficult. They might have done that by not having a record feature. All these parties later *did* cooperate to implement a technology called Macrovision that made serial copying difficult. Perhaps the Macrovision system could have been introduced earlier, in the first VCR. There was an opportunity missed for early collaboration, but collaboration later did emerge.

I'm not suggesting that these choices would have maximized joint value, but only observing that there was an opportunity for the parties to bargain about this early on. More conjecturally, perhaps these parties could have avoided a standards war. Most of you in the audience know that this is a great, much-discussed example of a battle between incompatible standards: VHS and Betamax. Maybe the movie industry could have brought these parties together if they were bargaining early to achieve standardization, before Betamax

<sup>&</sup>lt;sup>2</sup> Sony Corp. of Am. v. Universal City Studios, 464 U.S. 417 (1984).

eventually got wiped out. Or, they might have hastened pre-recorded content that would be available for sale or for rental. Hollywood at this time had their eye on the video disc, and they were actually cooperating with the video disc manufacturers to make this content available. They weren't, however, doing this with the VCR companies. We know that Jack Valente, the former president of the MPAA, felt that this technology was a disaster—but that was incredibly wrong, and clearly there was a lot of value for Hollywood in the introduction of this technology. Maybe they could have done better with an early bargain.

Sony knew where to find the people in Hollywood, just like they knew where to find Matsushita and Philips. They bargained early with some parties but not with others. It's not a problem in this case of matching; they could have found the counterparty. People in Hollywood probably knew what was happening in consumer electronic firms; certainly consumer electronics firms knew that someday they might be sued by any of these copyright owners.

Let's try to think about why Sony did not have a strong incentive to bargain early. Several reasons come to mind. First of all, network effects favor early and rapid growth of market share. Sony essentially could have said, "Well, negotiations with Hollywood would slow our product introduction too much."

Second, the plaintiffs' side might have a free rider problem that diminishes the threat of a copyright lawsuit. Disney decided to slay the dragon, not MGM. Sony, looking at this, might say "Well, we don't want to bargain early because it's going to take the parties on the other side a long time to get their act together." There's a reason for all of the copyright owners to sit and wait and let someone else shoulder the burden of providing the public good. The public good in this case is new law favorable (they hope) to the copyright protected industries.

Third, there's also a defendants' side free rider problem. Sony might think, "Well we don't want to make new copyright law that's favorable to us; we'd rather wait and let Matsushita or Philips make that law."

Ex ante negotiations with Hollywood presented another difficulty for Sony. There's an anti-commons problem here in the sense that there could be several different parties that could veto, which is to say enjoin, the sale of the Betamax. The studios might recognize that Sony would not want to bargain with them one-by-one. Sony's would not be too happy having an agreement with five of the big studios, but not the sixth. And so there might have been concern on both sides about getting the copyright owners collectively organized.

Next, I think that we have to wonder if the executives in Hollywood believed the Betamax would work, believed it would be accepted by consumers, believed that there would be a big infringement problem. I think that early bargains are often not going to happen because the IP owners are going to see lots of starry-eyed entrepreneurs saying, "Let's bargain now, I've got the next big thing." The IP owners are going to see that a lot, and they're

going to be skeptical. They often might simply say, "No, we don't want to bargain early. Let's see how this technology pans out."

So, what changes in the law might have nudged these parties toward early bargaining? One thing that Joe Miller and others have talked about is that business people sometimes worry about antitrust liability when they organize to fight a lawsuit or to negotiate a settlement.<sup>3</sup> You hear many people in tech industries in the SSO context worried about the specter of antitrust liability. One thing that we could do is try to calibrate some sort of safe harbor for both sides when they come together collectively to try to negotiate at an early stage how IP rights and new technologies will work together.

I'll talk later about how to calibrate remedies when you have innocent infringement in the IP context. But it's a small step from there to talk about calibrating remedies that are sensitive to the eagerness or distaste that a party might have for early bargaining. That's one tool I think we could use could have used in this case to nudge these people toward earlier bargaining.

Before we think about government intervention at all, we also want to think about some sort of private ordering. If Rob Merges were here he'd probably talk about the *possibility for coordinated behavior* on the part of IP owners. We didn't get an ASCAP for video back in 1970, but if we had, that would have solved that aggregation or collective bargaining problems that might have slowed or thwarted early negotiation. So that's something else to keep in mind, to perhaps restrain me if I get excited about some kind of policy intervention: to say well, maybe the parties themselves could handle this. But for a lot of the problems I'm going to talk about, I don't think that's a realistic solution.

Now, back to the descriptive part of the talk. What *causes* IP litigation? Bargaining failure, and also failure to bargain. We will see litigation that's attributable to one or the other, or to both. I'll talk through those two different stories and then spend some time talking about how the claim that I'm making might have some empirical content, and connect it up to observations about patent litigation.

First of all, when I think of bargaining failure, I think of three asymmetries as a quick way to describe the reasons that law and economics scholars think bargains fail and litigation results. Let me switch from copyright to patent and talk about what these three stories might look like in a patent context.

I suspect that for the most valuable patents, asymmetric stakes is the leading cause of patent litigation. And I would think that especially for important pharmaceutical patents it is a key problem. So here's what I'm thinking: If there is a chink in a patent on an active ingredient, that's an opportunity for a generic company to consider entering the market. Let's say the patent is probably valid but there's some chance—five, ten, fifteen percent—it could be invalidated. The pharmaceutical patent owner is thinking that they can save some money jointly by avoiding litigation and reaching a settlement. The

<sup>&</sup>lt;sup>3</sup> E.g. Joseph S. Miller, Joint Defense or Research Joint Venture? Reassessing the Patent-Challenge-Bloc's Antitrust Status, 2011 STAN. TECH. L. REV. 5.

problem with the settlement in this context, though and the way the asymmetry pops up, is that being a monopolist and selling a drug is a lot better than being a duopolist. We might be able to solve that if we have some clever licensing agreements; the cleverness here might involve reverse payments. There's some question about how tight antitrust law is in its governance of these settlement agreements. But generally, even with a very lax antitrust regime, you don't do as well when you license and have a duopoly as you would when you have a monopoly. So it leads patent owners who have fairly strong patents that might be invalidated to say that there's no way we're going to settle. Let's just litigate this thing. Generic entrants say, one in ten chance? That looks great, we'll take ten of those lawsuits and we'll win one.

That's an important source of patent litigation attributable to asymmetric stakes. It's also a setting, and I am speculating now, where we don't see failure to bargain. This is purely a bargaining failure setting: the generic companies can easily find out who the pharmaceutical companies are, they've got the Orange Book to tell them what the relevant patents are, and we have a great setting for fairly clear notice. In other words, we have a great setting for the parties to come together and bargain early. And the Hatch-Waxman process actually is helping us with that.<sup>4</sup> So we do have a pretty good way of addressing my concern, which is failure to bargain, and this seems like a story representative of the traditional notion of bargaining failure.

Second, asymmetric information. Law and economics scholars tend to think this is where most of the action is in terms of the causes of litigation. In the patent context, it's easy to think that one side or the other has better information about validity or value or design around cost. The less well-informed party may be reluctant to settle a patent dispute; they may be suspicious that the other party is exaggerating the strength of its case. Thus, fear of deception spawned by asymmetric information results in bargaining failure and litigation.

Recently, in patent law we've been paying attention to asymmetries in the litigation process that give a chance for the plaintiff to credibly threaten to impose big costs on the defendant. We think especially about bottom-feeder patent trolls in this setting.

I've told three stories about why we have bargaining failure. These are traditional law and economics stories applied in the patent context. Now I want to add a story about patent litigation that arises at least in part because the parties missed a chance to cooperate early on.

This is easy to see in tort law. If a utility line falls on me, I won't have a chance to negotiate my compensation in advance with the electric company. I won't get a chance to negotiate about maintenance, safety practices, or things like that. It doesn't always happen in the tort setting though—in your dealings

<sup>&</sup>lt;sup>4</sup> Drug Price Competition and Patent Term Restoration (Hatch-Waxman) Act of 1984, Pub. L. No. 98-417, 98 Stat. 1585 (codified as amended in scattered sections of 15, 21, and 35 U.S.C.).

with the doctor you have a chance to negotiate in advance of treatment, or before you enter an amusement park there's a kind of negotiation. So in IP law, like in tort law, sometimes there will be opportunities for parties to negotiate in advance of a potential dispute before actions are taken. Other times, that won't be the case.

Contract, in contrast, tends to be all about bargaining failure. You don't have contractual rights until you've met and bargained with someone, so you can't really talk very much about disputes that occur before anyone had a chance to negotiate.

In IP law, failure to bargain is especially important for patent law including design patent law, and probably trade-dress law within trademark law as well.

My first concern is simply: Do the parties find each other? As an IP owner I monitor for infringement, or I look for opportunities to transact. As a potential defendant, I try to see what rights are out there that might be asserted against me. Neither side necessarily has good information. Either side could make a search investment, and the result would be a match. Matching is hard, sometimes, in these three areas because rights can be hidden. Design patents are the most serious problem in this regard. We can't do, for example, the old style Lemelson submarine patent in utility patent context anymore, but we can still do it in design patent context. In utility patents, one problem is the ability to change language as a patent is pending. So it's possible in a case like *Rambus*<sup>5</sup> to surprise technology users about what the claims are in your patent.

With trade dress, the problem is simply that we don't require registration to get trademark rights. I probably don't want to push trade dress very far though, because we have a secondary meaning requirement. A different way of saying that which is actually helpful to the story I want to tell is that the law in trademark law imposes an obligation on rights owners to publicize their rights—to publicize their product which is advertised and sold so that consumers get to know it and get to see some device as an indicator of origin.

Think about that with regard to something like the rounded edges of a smart phone. Such a feature *could* serve as trade dress, but no one's going to be surprised if a court treats it as protectable trade dress because, as I said, there must be secondary meaning. But you could get a design patent on the rounded edges of a smart phone, and you don't ever have to sell the product, and you're still protected with your design patent. And you can even hide the patent application. Thus, there is a startling difference between the way trademark law pushes people to the bargaining table by letting later designers know that an earlier design exists. Unfortunately, you don't see that happening in the realm of design patent.

Basic problems: Does a right exist? Who is the owner? Those are problems that afflict these three areas, and especially for patents, we also have a numbers problems. For patents and design patents we also have problems that there are strangers holding rights. When I say strangers, what I mean is when Jim and I

<sup>&</sup>lt;sup>5</sup> Rambus, Inc. v. Infineon Techs. AG, 318 F.3d 1081 (Fed. Cir. 2003).

took a look at publicly traded firms that sue each other for patent infringement, we found that about a quarter of the time the parties across from each other in the dispute aren't really connected.<sup>6</sup> They're not in the same industry and they don't patent the same kind of technology. When Peter and I wrote about this we contrasted patented inventions to land.<sup>7</sup> If someone sues me because I've created a nuisance, they're going to be neighbor, literally. It's hard to search when we don't know where to begin to look. It's also hard to search when there's just a lot out there, and that problem gets compounded when the stuff that's out there might or might not be valid, might or might not be broad enough to cover what I'm doing—it just gets frustrating and impractical. It really discourages search intensity when you have a numbers problems or when you have low quality IP rights.

So far, most of my comments have focused on the IP user, but of course there is an IP owner who sometimes will have an incentive to publicize their rights. If I want to be bought out by Johnson & Johnson or Cisco, as a start-up making medical devices or router-related equipment, I want them to know that I have technology that they want, and that I have patent rights that go with it. I want to come to the bargaining table early on, so I will publicize my rights and my technology.

Technology is the important part of the start-up story. The start-ups have something of value: new technology and associated patents that companies like Johnson & Johnson or Cisco want to acquire. Unfortunately, there are other patent owners who really have no technology. They have their patent rights, but it's on technology that other people have already invented and they seek to monetize the veto right their patent gives them over technology developed by others. These patents owners prefer to hide before technology is developed and only assert their patents after the design of new technology is locked-in. That's what we call a holdup problem – strategic abuse of the patent system by parties who want to avoid early bargaining over their patent rights.

I'd now like to discuss whether we should have a preference for ex post bargaining, and I want to remind you of the discussion with regard to Betamax. As I said, Sony, Disney, and Universal Studios certainly could have found each other. So the failure to bargain in that fact pattern is not a failure to match. Instead, it's explained by people who could show up and sit across from each other and just don't want to. You need both of them to say yes. One or both in the case of the Betamax might have preferred to say no. These are related but distinct reasons why we have a failure to bargain.

As an economist, I know it's easy to generate theory like this. A skeptical and sensible thing for another economist to ask me is: Do we need more theory? We see lots of bargaining failure, we see lots of litigation. What's the

<sup>&</sup>lt;sup>6</sup> James Bessen & Michael J. Meurer, *The Patent Litigation Explosion*, 45 Loy. U. CHI. L.J. 401 (2013)

<sup>&</sup>lt;sup>7</sup> Michael Meurer & Peter S. Menell, *Notice Failure and Notice Externalities*, 5 J. LEGAL ANALYSIS 1 (2013)

benefit of one more story? I've got a lot of work to do to answer that question, but I'll give you a couple of hints about where there might be some empirical content here. When I say empirical content, I would like at the end of the day to look at the patent litigation that occurs and say it's either caused by A, or B, or both A and B. I would also like to be able to say that conditions in the world are changing so that there's more of A-type litigation or B-type litigation. Or I'd like to be able to think about policy intervention: "Particular industries have this kind of litigation, so let's match policy instruments to the appropriate industry or technology." That's the goal of getting a better empirical understanding, and these comments are just meant to suggest that we could make progress in that regard.

First, when you look at the standard models of litigation as an economist you think that if the size of the stakes rose in relation to the cost of litigation you would get more bargaining failure. If we instead think about failure to bargain, you might think that with regard to stakes, clearly the reverse would be true. My incentive to search for someone will go up if I think the stakes of litigation are going up. And so it may be possible, when you get predictions that go in the opposite direction like this, to look to the data and see that there's a lot of this kind of litigation but not this sort of litigation. The other possibility is number of IP rights. As the number of patents goes up it should have no impact that I see, at least right away, on the number of lawsuits per patent. Although that number lawsuits per patent is a problematic number, let's suppose it measures what people think it measures. If it measured what it's supposed to measure, lawsuits per patent would probably be constant as the number of patents goes up, according to the bargaining failure story. But according to the failure-to-bargain story, lawsuits per patent will increase. We get an increase because the numbers problem has become exacerbated—it's harder to search and match. This is interesting because I think there will be ways to empirically investigate the distinction between these different stories about why patent litigation occurs, or IP litigation generally, or even tort litigation for that matter.

I was motivated to choose this topic because I was frustrated with the tone in the debate about patent reform. Many analysts advocate desirable reform policies, but they seem to be fixated on patent troll litigation as an example of frivolous litigation. They say, we've seen frivolous litigation before, we know what civil procedure scholars tell us to do in response to frivolous litigation, let's reach into our bag of tools and take out some of those tools. For bottom feeder patent trolls, that is appropriate.

But I think that there is a lot of socially harmful patent litigation where there is a different story. It's not a story about bargaining failure, and the normal bag of procedural tricks that economists think could be used to address bargaining failure may not work so well. Jim and I have commented for quite a while about a patent litigation explosion, and we worry that a lot of people have lost track of the fact that the explosion pre-dated the appearance of a significant number of patent trolls. The patent litigation explosion is *not* about trolls.

Trolls make things worse to the extent that they raise the magnitude of the tax on innovation caused by patent litigation. But if the trolls magically disappeared, I think we would still get quite a high level—too high a level—of patent litigation, because it's attributable to other things.

In chemicals and pharmaceuticals, where there is no explosion in patent litigation, I think there's not much of a problem with failure to bargain. Where you do see litigation between pharmaceutical companies and generics manufacturers, it's because of bargaining failure. Notice works well because these people can find each other and negotiate in advance. Other industries outside chemicals and pharmaceuticals probably have a lot of both going on. In my work with Peter and Jim, using various kinds of indirect evidence, we've been pushing the message that failure to bargain is a serious problem. To be sure, there is also bargaining failure. My claim is simply that a lot of the patent litigation explosion can be best explained by failure to bargain. I want people not only to think about procedural reforms that might discourage bottom-feeder trolls but to think about core patent reforms. We have been thinking about that but we need to do more.

Now, a normative framework. I need to convince you that there's a benefit to early bargaining. I need to talk about the incentives for parties to bargain in good faith, incentives to publicize IP rights, incentives to search for IP rights and their owners. I've already talked about each of these issues somewhat. My goal here is to use a classic tactic that economists would use. I want to look at what the social planner would do in regard to these things and compare it to what private parties do. Look for some divergence. Do the private decision makers fully internalize the gains and costs that the social planner would recognize? Where I see a divergence, that's where I see a need to intervene in a way that will result in increased search, or some kind of bounty or penalty to encourage people to bargain early.

Early bargaining provides the main benefit of avoiding hold up costs. This is especially important in the context of standard-setting organizations, and it is also valuable with regard to intermediaries and aggregators who may be subject copyright or trademark lawsuits. We want to encourage rights owners and developers to work together to create greater social value. I'm optimistic that that sort of thing could happen. Note, of course, that there is no benefit to the IP owner who simply wants to exclude. Early bargaining is of no consequence, or no value, for a party that holds a strong patent on a new active ingredient in a pharmaceutical. So not everybody benefits, and society doesn't always benefit from early bargaining.

The next point I haven't made yet is very important, and it applies both to the IP owner and the IP user. Let's consider technology transfer, involving a new feature for a router. Cisco is looking for them, people are making them, and the parties have to invest to find each other, to convince each other that they have value to share and that there's a deal that can be made. Then when the deal is made and the value is realized, each side only gets half of the benefit. Economists would call this a double moral hazard problem. In another guise, Scotchmer and Green recognized this was a fundamental problem for cumulative innovation.<sup>8</sup> In still another guise Schwartz and Scott have recognized this problem with regard to stolen art.<sup>9</sup> There are many interesting settings where you have people that need to invest in finding each other, and we have a basic problem that they can't both capture the full reward from success so they will both tend to underinvest.

I plan to do a lot of analysis in this project concerning the intensity of search by IP users. I'll offer various stories that say that users get just the right search intensity, that users do too much search, and that users do too little search. I think the last claim is typically going to be the case. Why might they do too much search? Sometimes we get too much search because there's a private gain from search but no social gain. It is possible that successful search raises parties bargaining power without changing the underlying activities. Simply put, search is not socially valuable if early bargaining is not socially valuable.

When early bargaining is socially valuable typically there will be too little search, because of the moral hazard problem I just talked about. The lessons are that we probably need public investment to make search easier. We need greater transparency, especially with design and utility patents, to reduce search costs. And it's unrealistic politically, but search would be easier and society on balance would benefit if there were fewer IP rights.

IP rights generate what Peter and I would call "the notice externality." The people that are acquiring rights don't pay attention to the burden they impose on other parties in the form of greater future search costs. So I will look at policy levers that can be applied across the board with regard to IP, and talk about how to make contingent remedies that would apply to people that are innocent infringers, or penalize people who seem to reject attempts at an early bargain. We penalize people already through enhanced damages with the willfulness doctrine, and with fee shifting. Injunctions can be made contingent on things like that. Most of my analysis in this project with regard to aggregators like Google, eBay, or Amazon will address the content of the law of indirect infringement. What's the knowledge requirement, what kinds of safe harbors do we create, and why?

The last policy issue that will be of major concern to me in this project is the law related to declaratory judgments. Upstream manufacturers often worry about the impact of IP litigation on downstream customers, and they ask: Can we get into court? Do we have standing? How much hassling do IP owners have to do to our customers before we can get there? We might deal with that directly through legislation addressing customer suits.

<sup>&</sup>lt;sup>8</sup> Jerry R. Green & Suzanne Scotchmer, *On the Division of Profit in Sequential Innovation*, 26 RAND J. ECON. 20 (1995).

<sup>&</sup>lt;sup>9</sup> Alan Schwartz & Robert E. Scott, Rethinking the Laws of Good Faith Purchase, 111 COLUM. L. REV. 1332 (2011)

I have much work to do to develop this normative and policy analysis. I hope this preview entices you, and I hope that I will be able to share more results from this project with you soon. Thanks for your attention.