

Probable Causation, Episode 17: Ana Tur-Prats

Jennifer [00:00:07] Hello and welcome to Probable Causation, a show about law, economics and crime. I'm your host, Jennifer Doleac of Texas A&M University, where I'm an Economics Professor and the Director of the Justice Tech Lab.

Jennifer [00:00:17] My guest this week is Ana Tur-Prats. Ana is an Assistant Professor of Economics at the University of California at Merced. Ana welcome to the show.

Ana [00:00:26] Thank you. Thank you, Jennifer. I'm happy to be here.

Jennifer [00:00:30] Today, we're going to talk about your work on the effects of historical family types on present day cultures of violence against women. To start out, could you tell us about your research expertise and how you became interested in this topic?

Ana [00:00:44] Yes. So as you said, I'm an Assistant Professor of Economics at the University of California at Merced. I'm an applied economist, so I work with data, and I do research on areas related to gender, culture, political economy, and economic history. And how I became interested in this topic, well it was during my PhD, when I was looking for a research topic to develop on my own and what I noticed when looking at human interactions, I had seen how pervasive violence against women was across many societies and also in many different situations. So, I became interested in better understanding why. And more or less at the same time, I learned that the government of Spain, where I'm from, in case you hadn't noticed from my accent, had released some new data on violence against women. So, I requested the data, got it, and started to look for answers.

Jennifer [00:01:49] So before you wrote this paper, what had we known about the causes of domestic violence?

Ana [00:01:55] So far, the literature within economics on intimate partner violence had analyzed its contemporary determinants. So, the bulk of this literature has looked at mainly how the distribution of bargaining power within the couple would affect domestic violence, meaning if you give women better outside options to an abusive relationship by giving them more income, more money, providing them better services like shelters, better divorce laws, higher wages, etc., then the prevalence of domestic violence would decrease. And I read all this literature, and I learned that all these factors were relevant and that we needed to address them, but they all were immediate determinants. So for me, there was kind of a piece missing. And I figured that if we wanted to fully understand violence against women, we needed to take like a broader, even historical perspective, asking ourselves, like, what are the long term determinants of the culture of violence against women?

Jennifer [00:03:08] And that's an ambitious goal, ambitious question. Yes, so your paper is titled "Family Types and Intimate Partner Violence: a Historical Perspective." So just to start out, what do you mean by family types and how have they varied across time and space?

Ana [00:03:25] So, I focus on two family types, although there might be more types, three family types, I focus on the stem and the nuclear family. So, the nuclear families might be easier to describe. So, I'll start with them. Nuclear families are the most prevalent family types currently in our societies. So in nuclear families, all kids leave the parental home when they want to start their own families and being independent. In stem families,

however, there is going to be one kid and it's normally the firstborn son, but it can change, who remains in the parental home with his wife to continue the family line. And this kid who stays will also inherit the land and the house whereas in nuclear families, at least in the Spanish context that I analyze, they typically divide the inheritance among all children.

Ana [00:04:25] So these two family types differ both in residence and inheritance patterns. And so these two family types are traditional or historical in the sense that we find them both in the past. In Spain, the country that I look at in this paper, I find that the geographical patterns of these two family types were very persistent over time, broadly since the Middle Ages until the 20th century. But currently in Spain, the stem family has almost disappeared and it's only residual. But we know that it persists in other countries, mainly in some countries in East Asia, for example.

Jennifer [00:05:10] So what mechanisms do you have in mind for why family type might affect the amount of intimate partner violence in society, either contemporaneously or in the future after family structures might have changed along the way?

Ana [00:05:23] So the key thing is one feature of these family types, which is the intergenerational cohabitation. So instant families, there are two or three generations living together: the grandparents, the younger couple and their kids. So if you have in mind a pre-industrial society, there is a huge amount of domestic work and child rearing and that typically prevented women to work outside their homes. But the feature that stem families had in which women were living together with their mothers a lot, that allowed them to share these burdens and free up some time for working outside the home. On the contrary, in nuclear families, there was no cohabitation with the in-laws, so women lacked this type of support. So what I argue in this paper is that the higher female contribution to working stem families could in turn decrease the level of domestic violence through different channels. But I guess what it intended to see is that in the long run, when both partners work outside the home and contribute more equally to household income, also more gender egalitarian values arise. And what it's also important to see is that these cultural values would persist even though the institution that initially shaped them, in my case the stem family, is no longer in place.

Ana [00:06:58] Now, in our modern society, things have changed and families have access to childcare and other services that facilitate that both partners could work outside the house, but family structure might still play a role, both directly or indirectly, through inherited cultural norms. And I know, for instance, there is evidence from contemporary Japan showing that married women who live with their parents or with their in-laws have higher labor activity rates.

Jennifer [00:07:29] Yes, you're most interested here in sort of the long run effects on gender norms and gender equality. But you do lay out, I think I counted four potential mechanisms, at least in the short run, that you might expect this intergenerational family structure to effect at least short run domestic violence. Do you want to walk through those?

Ana [00:07:51] Yes, I discuss different mechanisms in the paper by which higher female contribution to non domestic work can trigger less domestic violence. And I think in the appendix I present evidence for what I would say is my preferred mechanism, which is the fact that I found a positive relationship between female labor force participation and stem families. So I take data from pre-industrial societies, for instance, from the Ethnographic Atlas and also for historical and contemporary Spain. And I show that indeed that's the

case, that in territories where stem family, were or are prevalent, then women tend to work more in the labor market.

Jennifer [00:08:43] Yeah, and I think that mechanism is definitely, will be appealing to many economists. Let me just kind of run through the other ones that really jumped out at me here in your paper. You have the idea that there's the possibility of the mother in-law essentially doing more of the domestic work than the woman is freed up to work outside the home. And then it would be essentially more costly for the husband to be violent against her because it might make her incapable of working.

Ana [00:09:11] Yes, a productivity loss of hitting your wife in that case. Yes, exactly as you said.

Jennifer [00:09:19] Mm hmm. The second one, I noted was, the woman is working outside the home than she just has more income and has outside opportunities. And so there's just her bargaining power increases. And the third one is domestic violence might normally be a way to control the wife and get her to do the domestic work that the husband wants her to do. And now if his mother is doing it, he doesn't need to use violence as a controlling mechanism. And the fourth one, which I found really interesting and hadn't really thought of it in this context before, is that just the number of witnesses in the house had increased. And so that could reduce the amount of domestic violence. And I guess that depends on cultural attitudes toward violence against one's wife. But it's just, it's fascinating to think through these different mechanisms. And I think in economics, and you certainly know this literature better than I do, but I think the standard economic theory and thinking about intimate partner violence is it's all about bargaining power. And I think that's really dissatisfying to a lot of people. And so it's interesting to think about these other potential mechanisms.

Ana [00:10:28] Exactly. Definitely. There are many other potential explanations. There is evidence that is consistent with other explanations than the it's a standard household bargaining model would predict.

Jennifer [00:10:40] Yeah. And then as we were both saying earlier, you're obviously much more interested in kind of the long run. So there's some short run effect of these family types on domestic violence. And then the question you're interested in is, if you have these short run effects or changes in sort of norms regarding gender, does that have long term implications? And so, as I said before, that's a very ambitious question. So what are the main empirical challenges that you had to overcome in order to measure the effects of family types on long run domestic violence? Is the hard part finding the data or the natural experiment, or is it both of those things?

Ana [00:11:17] So in my case, since I had already part of the data, the main difficulty was finding the natural experiment. So basically by looking at the data, descriptively, what I found is that Spanish regions in which the stem family was more socially prevalent in the past have currently lower rates of intimate partner violence. So I needed to find a way to disentangle causality from correlation because there might have been other factors explaining historical family structure and gender norms. For instance, some institution's policies or laws, or it could have been the other way around, so that more gender equal societies to begin with chose to have a stem family structure instead of other family structure. So in my case, it took me a lot of time to come up with a natural experiment to disentangle these.

Jennifer [00:12:13] It sounds like the data just sort of revealed themselves to you at a convenient time. But, I gather that as is often a constraint in this space as well.

Ana [00:12:24] It is. Yes. Yes.

Jennifer [00:12:25] So to investigate this, you use these historical data that you found and a natural experiment in Spain that affected the distribution of family types across the country. So tell us about the history here. This is an economic history paper. So tell us about the history and the natural experiment that it produced.

Ana [00:12:45] So I went back and started to read history, and I, I focused on these Christian conquests. So this was, this started in the eighth century, and in these Christian conquest, basically several Christian kingdoms took control from Islamic rulers of the Iberian Peninsula and overpopulated what today is Spain. So what I notice is that the circumstances that gave rise to Christian kingdoms with very different political structures in the west and in the east of the Iberian Peninsula, these circumstances are key in understanding the emergence of the different family patterns that we saw afterwards. So in the west of the Iberian Peninsula, the monarchy was much stronger and centralized to begin with, and they wanted to limit the power of noble families. And one way to achieve this was by making them divide their land holdings. So what they did is, the monarchies, they introduced the system of compulsory sharing of inheritance among all children, and these sharing of inheritance led to nuclear families. Meanwhile, in the eastern kingdoms, they had a more feudal structure which had been inherited by the Frankish Empire, and so these nobility was much more powerful and they wanted to maintain their land holdings intact and they managed to have an inheritance system much more flexible, called freedom of testation that would allow them to appoint a single heir and keep all their land holdings intact. And this single heir system led to stem families.

Jennifer [00:14:41] So how do you use this natural experiment to estimate the causal effects of family type on domestic violence?

Ana [00:14:48] So I use this historical episode as an instrument. So I implement an instrumental variable strategy. More precisely as an instrument for the prevailing family structure, I use a dummy variable, an indicator variable, that takes a value one if that specific region had freedom of testation in medieval times in I measure that in the 13th century. In other words, to estimate the causal impact of historical family types on current domestic violence, I use the variation in historical family types that comes from medieval inheritance laws that were extraordinarily determined.

Jennifer [00:15:30] And then so the historical inheritance laws affect the family types, in still historical times, and then, you look forward to seeing what happens to intimate partner violence, not quite today, but in present day.

Ana [00:15:45] Exactly. So those medieval inheritance laws affected the family types already in medieval times, and in those geographical patterns of family types in the Iberian Peninsula stayed the same or remained very stable from medieval times until the 20th century. By the mid 20th century, due to full industrialization and migration to cities, then family basically disappears and correlates very residual. So in Spain, currently, we only have nuclear families, but somehow we see that the cultural values that were attached to the stem family persisted through this cultural transformation that we were talking before and persist in a way that are able to influence today current rates of domestic violence.

Jennifer [00:16:36] Right. And just to reiterate kind of the nice aspect of this natural experiment here, you might generally worry that if you were to just look at correlations between historical stem families or even present day stem families and an intimate partner violence, that those are going to be choices of individual families. But here you're really relying on there being a change in policy that presumably is not directly – you know, they're not – these different inheritance laws weren't passed because they were focused on gender equality, there were other reasons for these inheritance laws. But they happen to kind of change set norms for what the family types would be in the whole region. And then using that as an instrument for the prevalence of these different family types is really nice. So what data do you use? Tell us about all the different data that go into this paper.

Ana [00:17:34] So regarding domestic violence data, Spain has been conducting very routine, comprehensive surveys on violence against women in the last years and because of the way the survey is designed by mainly by asking direct questions about specific acts of violence rather than relying on self-reported abuse. So they are considered this type of surveys to be kind of the best indicators of domestic violence that that one can work with. So what I did is I requested that data. I pulled the individual information on domestic violence for different years from 1999 to 2006 and got the information for about 70,000 women.

Ana [00:18:21] And then to measure the historical family types, I use the historical census data. So the census from 1860 is the first one that allows me to measure family type systematically for the whole country. But as I said before, since family types have been very stable, even though this is a fixed point in time, I can still measure the family types over time. And so I just use some measurements that demographers developed for measuring family types, which is the average number of married and widowed women per household, averaged that at the province level.

Jennifer [00:19:02] And just to dig into that, the survey results just a little bit more. So, as you mentioned, the kind of main alternative to studying this type of violence is using reports of crimes to the police, essentially. And so here you might, and in general we just we know that this type of violence is dramatically underreported, and so those types of crime reports of domestic violence are tough to work with because we're just not sure how extensive the underreporting is and how much selection bias there is in it. And so here you have these surveys which are still self reported, right, which is not ideal, but the assumption is that people will be much more honest with the surveyor than if they were required to go to the police to report.

Ana [00:19:47] Yes, exactly. So administrative data like police reports, even hospitalizations data, data on homicide, et cetera, this is also very valuable for studying domestic violence. Survey data, as you said, can be a bit tricky. But if the design of the survey is carefully done, as I said – for instance, these surveys, the way they are presented to women is this is a survey about the situation of women in Spain, in the labor force, about their families, their health, et cetera. And only at the very end of the survey, does the surveyor tells them, "Look, I'm going to now show you 26 situations, specific situations. Let me know if you've encountered yourself in any of these situations." And 13 of these 26 situations are standalone indicators of domestic violence, which have been developed by a specialist in this area.

Ana [00:20:51] So the way the question is framed and the survey designed and everything all is conducive to minimize the underreporting and the bias in reporting these. Having said

that, I mean, as you said, this is still self reported data show complementing it with other sources of data, like administrative data, et cetera, can also be very valuable.

Jennifer [00:21:17] Okay, great. So let's talk about your first set of findings. Tell us about the effect of living in an area where stem families versus nuclear families were predominant in the mid-eighteen hundreds or the affects of living in those areas on present day intimate partner violence.

Ana [00:21:34] So what I find is that individuals who live in territories where the stem family was prevalent in the past exceeded currently lower rates of domestic violence and also more gender equal attitudes.

Jennifer [00:21:50] Which is I think- when I first read the paper, it's surprising how big these effects are and how lasting the cultural change was. Do you have any- can you give us any sort of sense of the magnitude of the effects?

Ana [00:22:03] So like the reduced form effects, it would be like an increase in one in the average number of married and widowed women in the household per province, which is a big effect. A big change would be associated with a decrease of around 6 percentage points. So to put it differently, a change from the most nuclear to the most stem family province would be associated with a decrease in domestic violence today of 2 percentage points, which is equal to 24 percent of the sample mean.

Jennifer [00:22:37] That's huge. Yeah, culture matters.

Ana [00:22:40] Yeah, those were a lot of numbers to say that this is economically significant.

Jennifer [00:22:46] That's great. So then, as you mentioned, you do use an instrumental variable approach to isolate the effect of family type on intimate partner violence. So tell us what you do there and what you find.

Ana [00:22:56] So the first data is strong and it shows that, indeed, Spanish territories that had this freedom of testation, this ability of appointing a single heir in the 13th century established stem family types. And then in my second state, I find the results going in the same direction as with the reduced form OLS estimation. So again, I find a negative and significant relationship between areas with the stem family tradition and current rates of domestic violent.

Jennifer [00:23:29] Now, some listeners will immediately be thinking instrumental variables require what we economists call the exclusion restriction to hold. That is, in this case, we're assuming that the Christian conquest of the Iberian Peninsula only affects present day, intimate partner violence through its earlier effects on predominant family types. So you do a bunch of checks in the paper to cut it to deal with this. So how do you convince yourself that this is a plausible assumption in this case?

Ana [00:23:57] So that section in the paper just got longer and longer overtime. I thought a lot about these and run different tests and looked for additional data sets to convince mostly myself and also the reader. So as you said, I run many different tests. But for instance, one of the things that I wondered from the beginning was whether the different political institutions in the east and the west that I observe were also correlated with different levels of development. And, you know, a higher development might be also

correlated with more gender equal values and therefore less violence against women. So to address these, I looked for historical data on economic development like measures of urbanization rates, et cetera, in the past, and also contemporary measures of economic development to make sure that I was kind of shutting down that channel.

Ana [00:24:55] Another thing that I do is because the geographical pattern of the family types in Spain is the following – so in the northeastern part of the Iberian Peninsula, there is stem family and in the south and west there is nuclear family. So I wonder whether – I mean, maybe if you have in mind a very clear north-south divide, this might also be running the results and not the family type. So I categorize the Spanish provinces into like north, south, east, west or northeast, et cetera into four regions and then rerun my estimation using these big regions, fixed effects to see if the effect that I was finding also persisted within these broad areas. And it did. And then finally, another general validity test. I performed the statistical analysis, which is called this plausibly exogenous, developed by Conley and coauthors in 2012, and show that even if we allow for some plausible amount of imperfect exogenous, or even if we allow for some effects of these Christian conquest on today domestic violence, the IV estimates are still informative of a negative and significant impact of the stem family on current rate of domestic violence.

Jennifer [00:26:21] And then you do a few additional tests for robustness as well as to explore mechanisms, as you mentioned earlier. So tell us a bit about those other tests that you run and what you find.

Ana [00:26:34] Yes, so one of the additional results that I show in the paper that I also like is I explore more how this culture of violence against women has been transmitted over the centuries. So what I do is I look for the world values survey data for Spain and I use information on gender equal attitudes. And I did find that territories that had stem family tradition in the past currently exhibit more gender equal attitudes than the nuclear family territories. So it's not only that they have lower rates of domestic violence, but they are also more gender equal. So this is suggestive that the internalization of these cultural norms and their intergenerational transmission is probably explaining why we still see the lower rates of domestic violence in territories where the stem family was predominant, even though these stem families are no longer prevalent. So somehow this culture of lower violence persisted through this cultural transmission.

Jennifer [00:27:45] But then you also look – I really like the kind of follow up test to that, because you hypothesize that maybe this is just a signal that these regions are just open minded in general. Right. And then you look at kind of I think it was from the same survey of attitudes and then you run your same analyses, but using other measures of sort of political attitudes as outcomes. And what do you find there?

Ana [00:28:10] Exactly. So as you said, one could argue that stem family territories might also be more open minded and that higher gender equality in these regions is simply an expression of greater tolerance, not only to women, but like to all – to other groups or other minorities. So to address this, I look at non gender related attitudes and I look at attitudes toward homosexuality, euthanasia. I look at life satisfaction, trust. And I do not find any statistically significant differences for these attitudes in stem family territories compared to nuclear family territories. Apparently in stem family territories, I found that individuals tend to find homosexuality less justifiable today.

Jennifer [00:29:03] Interesting. So that kind of goes the opposite way. Right? I tend to expect norms of greater independence for women to go hand in hand with more tolerance

of homosexuality, too. But that is not what you find there. Yes, it really does seem to be all about gender, in this case. So it is really interesting.

Jennifer [00:29:22] So your paper is now forthcoming at the Review of Economics and Statistics. So it's pretty new, but it's been circulating for a little while now. So what other work related to intimate partner violence has been released since you wrote this paper? What else have we learned about the causes of this type of crime?

Ana [00:29:40] So related to my paper very, very recently, Alesina, Brioschi, and La Ferrara, just published a paper looking at how ethnic related cultural factors explain domestic violence in Africa using African data. And so in line with my results, they show that certain ancestral characteristics, for instance, the reliance on plow agriculture that made women to participate less in production are related to higher levels of violence against women today. So that is also another paper showing that the cultural related norms to domestic violence. And there are other new and very interesting studies on domestic violence, many new working papers, and some of them are focusing on the relationship between intimate partner violence and jobs or female empowerment more generally, like the work by Kotsadam and Villanger in Ethiopia, Guarniere and Rainer in Cameroon, or my own work with the Spanish state on the effects of unemployment rates and intimate partner violence.

Ana [00:30:57] And you mentioned this a bit at the beginning – the relationship between employment and domestic violence is not clear. So the issue is that theoretically – so on the one hand, better jobs for women might provide better outside options to an abusive relationship and therefore less violence. And this is like the standard household bargaining model would predict. But on the other hand, domestic violence might increase if men feel that their traditional role as breadwinner is being threatened by better female employment opportunities, better jobs for women. And this is consistent with a more sociological backlash model, male backlash model. So theoretically it is not clear. There are mixed results, mixed evidence, and this relationship is not well understood yet. So what we're learning is that the relationship between employment, female employment and domestic violence might be context specific, might also depend on the context or on the cultural values. And we definitely need more studies in this direction.

Jennifer [00:32:17] Okay, so considering the results of your work as well as other work in this area and on intimate partner violence, what are the policy implications here? What should policymakers who are concerned about this type of crime take away from the current literature?

Ana [00:32:31] So that – while the obvious is that domestic violence is a complex issue that we need to understand better, we are learning that it has deeply rooted determinants, that culture matters also for intimate partner violence. There is a small but growing literature showing how cultural norms can shape the response to different policies in terms of educational investment. For instance, there has been shown with school construction policies in Indonesia and Zambia by Ashraf and colleagues, or with land inheritance reforms in Ghana by La Ferrara and Milazzo, or with pension reforms in Ghana again by Natalie Bau. And these studies are showing heterogeneous effects as a function of your underlying cultural norms. So some of my recent work on domestic violence and unemployment is showing that underlying cultural norms can interact with policies and shape individuals' reactions in terms of domestic violence too. So to policy makers then, I would say that we really need to understand these cultural norms and how they might interact with potential policies and take these into account when they are designing these

policies to eradicate violence against women. Because if we fail to do so, then these policies might have undesirable results or no results whatsoever.

Jennifer [00:34:00] So that takes us to my question about the research frontier. So that sounds like a big one and an important one. So what what other big questions will you and others interested in this topic be thinking about in the years ahead?

Ana [00:34:14] The other big question out there, I think, is to explore even further the role of culture in explaining violence against women. In terms of my own research questions, what I'm doing currently is I'm looking at other forms of violence against women, such as conflict related sexual violence, which is one of the most brutal forms of violence against women. So together with a coauthor, we are investigating whether deeply rooted gender norms not only explain intimate partner violence, but also sexual violence in conflict. And we find that they do indeed. That gender unequal actors are more likely to be perpetrators of sexual violence and that sexual violence increases when the perpetrator is more gender unequal than the victim. So this idea of the cultural distance also matters in explaining this behavior.

Jennifer [00:35:20] That's really interesting. Is that working paper out- is it available, is it circulating or is it still a work in progress?

Ana [00:35:26] Still a work in progress, but it will be there soon. I will make sure to send it to you.

Jennifer [00:35:32] Well, this is all fascinating. And I look forward to seeing that paper and other work in the future. My guest today has been Ana Tur-Prats from UC Merced. Ana thanks so much for doing this.

Ana [00:35:42] Thank you, Jennifer. Very happy to talk to you.

Jennifer [00:35:51] You can find links to all the research we discussed today on our website, probablecausation.com. You can also subscribe to the show there or wherever you get your podcasts to make sure you don't miss a single episode. Big thanks to Emergent Ventures for supporting the show and thanks also to our Patreon subscribers. This show is listener supported, so if you enjoy the podcast, then please consider contributing via Patreon. You can find a link on our website. Our sound engineer is Caroline Hockenbury with production assistance from Elizabeth Pancotti. Our music is by Werner, and our logo is designed by Carrie Throckmorton. Thanks for listening and I'll talk to you in two weeks.