

Probable Causation, Episode 96: Andreas Kotsadam

Jennifer [00:00:08] 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. My guest this week is Andreas Kotsadam. Andreas is a senior researcher at the Frisch Center in Oslo. Andreas, welcome to the show.

Andreas [00:00:26] Thank you, Jen. I'm very happy to be here. I listen to the podcast whenever I can and I love it.

Jennifer [00:00:31] Thank you. Well, today we're going to talk about your research on how women's employment affects intimate partner violence, but before we get into that, could you tell us about your research expertise and how you became interested in this topic?

Andreas [00:00:44] Yeah, sure. So I don't really have a research expertise. I'm interested in so many things. I work on many different things. So my expertise is probably in finding very good co-authors and convincing people to randomize stuff, but I have been working on domestic violence for many years, so I've been really puzzled by the differences across regions, across countries, across villages, across families in domestic violence and it's really puzzled me why there is so much so much variation even within countries. And there's also from like a sociological point of view, there's also a lot of interesting facts like this, a lot of cross level interactions in this correlation. So, for instance, the correlation between employment and intimate partner violence is very different depending on like macro level factors in the country and in the village and so on so I find that really fascinating. But then then of course, it's as an economist, you often want to know something causal, right so it's a bit unsatisfactory not to know whether employment affects intimate partner violence or whether intimate partner violence affects employment, or as it's more most likely some third factor that affects both right so I've really been interested in looking for a situation where I can look at the causal effects of employment and yeah.

Jennifer [00:01:56] Fabulous. Yeah. Well, convincing people to randomize stuff is a really important skill that you use use to create effect in this paper. So this paper titled "Jobs and Intimate Partner Violence: Evidence from a Field Experiment in Ethiopia." It's coauthored with Espen Villanger and is forthcoming in the Journal of Human Resources. So let's start with some context on Ethiopia. How common is intimate partner violence there and what do we know about gender attitudes in that country more broadly?

Andreas [00:02:23] Yeah, so Ethiopia is generally described as a patriarchal society. I mean, which societies isn't, but relatively, relatively more so of course and men often have the final say in household decision making and so on. Female employment is quite common and like female work is common, it's common everywhere. So women are working right, but also paid employment this is quite common in Ethiopia, but it's definitely a patriarchal society and intimate partner violence is very prevalent, unfortunately. So if we look at nationally representative data from the demographic and health surveys, we know that around one third of women have been abused by their partner, and that's a common to find in many countries. That seems to be a number that that goes again, that's also like the worldwide number of this, but if you look at abuse last year, that's a measure we often find largest differences across countries. We find that almost as many are abused last year as lifetime abuse, as really the violence is so prevalent that it happens over and over again. That's really what's what seems to be a distinguishing country. An acceptance of abuse it's also strikingly high. So if we ask women themselves, so again, from this

nationally representative data, if you ask them if a husband is justified in beating his wife, if, for instance, she goes out without telling him or or refuses to have sex or neglects the children or so on, over half of the women, the women themselves think that the man is justified in beating his wife in situations like that. So it's is that endemic situation of domestic violence, I would say.

Jennifer [00:03:58] And so in this paper you're studying employment. So why might women's employment affect intimate partner violence? What are the mechanisms you have in mind there?

Andreas [00:04:07] Yeah, so there are many theories about this, right. And at the most like general level is probably depends on how you view violence, do you see it as expressive or instrumental so it's I will explain, can explain what that means. So expressive violence is usually seen as the man using violence to get some utility from it. So it could be like relieving stress or something like that. Instrumental violence is violence that is used to get something to use as an instrument for something. And if we think that violence is expressive, that is the situation where where men gain something from or then they may gain utility by using violence they don't use as a means for something else than getting employment and resources in general should reduce domestic violence because it likely improves women's outside options in this in this bargaining models that economists usually play around with, but on the other hand, then if violence is instrumental then, of course, if if women earn more money, there's more resources to extract.

Andreas [00:05:12] And it could also be the case that you that the man is using violence to try to reinstate this power if if the female power has increased due to her having more resources, that could be could go in both directions in general. And at an even more general level, this is probably very important whether the relative resources between the spouses and how that looks, if that is the case, that the man is the breadwinner and then he loses his breadwinner status when when women are starting to work in them, that may be problematic. It may also be problematic if if he is not working and she becomes like the main, main breadwinner. So this status inconsistency theorists say that male identity is threatened by by women working. So that may create the backlash that people often people often talk about, so there are very many theories.

Andreas [00:06:05] And in addition, this this mechanism are probably also likely to differ depending on contextual factors, such as if there are many women in the society that are working, or if if these are like the first, the first women that are breaking social norms to start to work and so on. So it's quite tricky to like to know what the effects of of employment would be, but to sum up, there will be like this is classic donor view that if women get employed, will get empowered and violence will go down and that can be contrasted to more like sociological view, whereas the man goes crazy bananas after a woman starts working and violence violence will go up. And then of course theories about exposure reduction and so on that employment takes time rates. If, if, if the man and a woman are together, when the woman is working, maybe with a mechanical effect with that as well. So there are many, many theories.

Jennifer [00:06:58] Okay. And then so there had been other research on this before. What had those previous papers told us about the effects of employment on IPV?

Andreas [00:07:08] Yeah. So first of all, there's a large correlational literature and they find different types of correlations and and I really liked that literature. Well, I have to say because, because I contributed to it myself. I think it's really it's really interesting to look at

how the correlations are in different places and try to try to understand the world and see and see how it is.

Andreas [00:07:28] And in general, the correlation between employment and intimate partner violence can go both direction in theory, and it also does it in the data, but it's generally positive in sub-Saharan Africa that it's positive in like the scientific sense, not the normative sense. So women that are working are more likely to have been abused the last year is the case in sub-Saharan Africa. If you look at the just look at the correlation, and this is also the case in itself where we are working. But then of course, that's in the beginning. We don't really know from those correlation whether employment actually affects intimate partner violence or if it's the other way around it. So there are a lot fewer causal estimates, and especially when we started this project and especially from from low income countries. So there are definitely some studies from from higher income countries, but those are most this studies at the aggregate level and that probably comes from their identification challenges. So it's difficult to find some what we call exogenous variation at the individual level, but it's easier to find those instances at the more aggregate levels.

Andreas [00:08:35] In particular, there's a series of papers that have been using so-called bartik or shift share experiments or shift chair variation, and that's basically used in a variation in in the local level female employment and looking at how to how that variation is related to the variation seen in domestic violence. And this is a serious of seminal papers, and that's Anna Aizer has this seminal paper from 2010 using that in the United States and finding that female employment to reduce this abuse when she uses that strategy. And that has been replicated several times in other places in the UK, there's a paper by Dan Anderberg and co-authors finding basically the same thing.

Andreas [00:09:18] But then again there's this macro level difference as again as if we look at people that have used this strategy in in other types of countries, so in Mexico, for instance, female employment has been found to increase abuse using a similar strategy in a paper by Davila in 2018. And what's most interesting, the my my favorite paper that was published before and before we started this was the paper by Ana Tur-Prats. I think you had her on on the podcast discussing this paper, but what she did was really tackling this variation question right on. So she used the identification of, of the effects of employment, but she did it in Spain, and when she separated out the effects in two different regions and, and looking at regions where where men experience a loss, loss in identity utility when their breadwinner status is threatened, so that's more traditional parts of Spain and there she finds different effects than in other parts of Spain.

Andreas [00:10:17] I find it extremely interesting, but again, does so using variation at the different at the different levels. And it's also always the case with these observational studies, as we know there are we learn more and more about identification challenges and so on. In particular, these Bartik instruments have been have been discussed quite a bit. We don't really know how well identified they are and so on and it's not like a randomized experiments there's always some, some uncertainty, I would say. But there are randomized experiments or have been randomized experiments on other issues that's very related to employment and there's quite a large developed literature on on the effects of cash transfers yes, giving people money and the effects of that on on domestic violence.

Andreas [00:11:03] And that's of course, of course related if you think about the the the resource part of employment. And there we find that there are many, many different studies and they've defined very different things as well. So sometimes they find out that cash reduces intimate partner violence and sometimes has no effect and so on. And and if

you if you take all the all the studies together and look at like meta studies and look at the how many things are significant, this the picture, is kind of bleaker is this a review by Buller et al., from 2018 that find that they're taking all the 56 measures that were included in these studies and find out around half of them were statistically insignificant. So it's it's it's not really clear even even what the what the cash transfer literature is, is saying. There's also a recent more recent review by Baranov and co-authors that finds the average reductions in general. So if you give people money that the domestic violence decreases, but of course, cash transfers, it's not employment rights, it's employment comes with a lot a lot of stuff than just resources its this you're you're away from the family. It also threatens their the traditional breadwinner role more explicitly. It leaves the social networks for the women out there. Yeah, it may be may have a lot a lot of different effects them than just cash. So even if the results from the cash transfer literature have been very clear, it's unclear how the effects of employment would have been.

Jennifer [00:12:37] Yeah, if the results had been clear, it still would not have told us this. But there's still uncertainty there too. So what makes this so difficult to study, especially on the employment front, is the challenge here mostly not is just tough to get the right data because this is, you know, IPV is underreported or something like that. Or is it mostly an identification challenge and finding good experiments?

Andreas [00:13:00] Yeah. So it's both. As it often is. Right. But I think on the data front there is quite a lot of data that's also, as I said, is national representative surveys, especially in poorer countries, they're doing really good. I mean, the the demographic and health service they use a state of the art measures of of intimate partner violence and of course, is always self-reported, but it's that's probably what we need to have because there's so much underreporting to police and fewer people go to hospital and so on. And so so I think that the identification challenge is probably the most important one, especially if we're interested in like the individual level employment. So a lot of people have used, as I said this, Bartik Instruments and so on, but that's that's a different question in some senses. It goes more under like the local level employment, which is of course super interesting as well, but it's kind of a kind of a different question. So I think identification is really tricky.

Jennifer [00:13:58] Okay. So you ran a really cool field experiment offering jobs to a random subset of applicants. So tell us more about what you did. What types of jobs were you offering, Who is eligible for them and how did you actually implement this randomization?

Andreas [00:14:14] Yeah, so this was a big undertaking this took a lot of time and a lot of effort. And the again, most the most thanks to my co-author Espen Villanger who has been trying to get randomization up and running in in other parts of industries in Ethiopia before and he had lots of contacts and so it was a really yeah it took a lot of sweat. So what we did is actually we cooperated with 27 large factories that produce basically shoes and garment, and they export these factories. They are their international factories and we work with them to randomly assign around 1500 women to to either a job offer or not and then we collect baseline data before the randomization. And then and then we randomly assigned the job offers and then we collect follow up data at six month intervals, and we are still collecting, collecting data. So we are now at the six year follow up. I think, so it's hopefully hopefully I can follow this women for for the rest of my life and perhaps my kids can follow their kids and so on. But but it works like this so when the companies want to hire in this region, so this is like semi urban areas, it's not like another suburb, but a capital is a semi-urban area.

Andreas [00:15:33] So when when they want to hire, they basically put out put out papers on a billboard or the letter word spread and so on. And then a lot of a lot of applicants come want to have this job. So that's a large excess demand for these jobs. And when they apply for this jobs than the factories first determine whether they are eligible or not. And then they recreate lists together with them, containing applicants that are equally qualified. And within those lists, since there are so many more, I want to have these jobs we randomly assign the job offers to around half of them on those lists, and that's how we do it. And I think it's it may sound weird to like, give people randomly jobs, right, but because you usually think that, well, they should be either they should be based on need or it should be based on like meritocratic ideals or something that but these factories, they do, they don't really care about who they hire.

Andreas [00:16:30] They want to have women because they because they think that they create less problems, but apart from that, that they really didn't care much about who they hire. And that means that this process was much more structured when we were there than when we were not there. So we had we had stories from our qualitative work that when they hired without us being that to give everyone an equal chance for these jobs, then lost a lot of sexual extortion, bribing and so on hiring based on good looks and so on, I think is a setting where, given the given the high excess demand for jobs, I think it's quite difficult to randomly assign them and to be able to look at the causal effects.

Jennifer [00:17:09] Yeah, that's super interesting. And then I would love to hear a little bit more of just the backstory about how this came about. I mean, it just seems, as you said, it just seems like such a huge undertaking convincing 27 major firms to randomly allocate jobs. How did you and Espen go about this?

Andreas [00:17:26] Yeah. Now so again to most credit to my fantastic co-author Espen here. So he's been working in Ethiopia for a long time. Right. And he worked for the World Bank there before and so so he knows a lot of people and we have really good, really good local research partners. So what we wanted to do was to find situations where we could hire in bulk or when factories hire in bulk, so that we could really have a really have been able to do the randomization rates and the way we work with our partner in Ethiopia is the State Research Institute. So they have as part of the social mission, is to study the creation of jobs and the consequences of job creation.

Andreas [00:18:06] So the government is really interested in in looking at the effects of this jobs and the government is really active in in creating these industrial parks where they have these exporting firms having their big factories and so on. So there's a lot of interest from the government as well, which definitely helped. So that made our local partners be able to go out to these factory parks and talk to factory factory owners and then say that we would like to do this. And the government just has a big interest in this and that they, they they need to study like the conditions and also looking at all the effects that this jobs may have and so on. So so that's how they probably they convinced the factories to be included here so that's that was great for us, of course.

Andreas [00:18:53] And then what the local staff did was that they monitor these businesses over time, but said that they were going to hire in bulk and whenever they did the recent survey enumerators to this area, so it was a data collection the baseline data collection was over two years. So that's because we wanted to have around 1500 to 2000 women so we waited and then whenever a factory in the region wanted to hire, we went there with, with enumerators. So that's, that's how it happened.

Jennifer [00:19:23] Okay. So what data do you use for your analysis?

Andreas [00:19:27] Yes, we use survey data. So we create a baseline survey that we had to interview the women before they were randomly offered the jobs or not and that data consists of many different modules. So we asked them about demographic stuff, background information, measures of previous earnings and so on. And, and of course they have a big bulk on, on intimate partner violence, which was our, our main outcomes that we were very interested in from the start.

Andreas [00:19:57] So where we use this is called the conflict tactics scale. So instead of asking people like, oh have you been abused which maybe culturally different in different areas and it's unclear what you mean with that and so on. We asked them very specific questions about actions that have happened to them. So we asked them if they have ever been slapped and if they say yes. We asked them if it happened during the last three months. And we also ask who did it and if it's the partner and so on so it's based on that we focused mostly on the physical abuse and physical and sexual abuse from a partner. That's that's our main measure. So that's the data and it was around around 1500 women that we randomly assigned to treatment and control. So we interviewed even more actually we interviewed around 1900 women, but the field is crazy as a lot of stuff can happen. There were around around 400 of these women, though they were not randomly assigned to jobs. So in one place, there was just just an error that should have been but never happened. And then in another place, the Internet was down, so we couldn't get the lists and time and so on, but that's that's the field for you. But, but around 1500 women and then we actually managed to track many of them, of course, not everyone, but we have around around 1300 for the first follow up, and then we lose more and more women over time. So in particular, if women are moving, a lot of these women are moving to Saudi Arabia or the Middle East in general to to work and then they can't find them anymore, but we managed to track quite a few of them.

Jennifer [00:21:40] Okay. So in this sample at baseline, how common was IPV for the women you interviewed?

Andreas [00:21:46] Yeah. So it was very, very similar to what we had found and in the natural representative data in general. So around one third of the women we surveyed had been abused ever that is physical or sexual abuse by their partner and around 20% had been so during the last three months. So we use three months because we weren't sure when we could go and survey them again. So we knew that we had targeted to go there after six months, but of course stuff can happen, so we wanted to have some leeway there, but around 20% had been abused by their partners in the last three months.

Jennifer [00:22:24] And then in terms of the follow up, what outcome measures you most interested in?

Andreas [00:22:29] Yeah, so our main main pre-registered outcome is this physical or sexual abuse by a partner during the last three months, but then we of course measure a lot of other things as well. I mean, we have this fantastic opportunity to to look at a broad range of potential questions, and that's the way we, of course, measure other types of abuse. So we measure emotional abuse and controlling behavior and then trying to anticipate like possible mechanism for different types of results beforehand. We also want to think about what what could the mechanism have been. So we ask a lot of questions about different types of mechanisms as well, and attitudes we ask about spending and

time use and a whole range of things. But but I think it's important to say that we have our pre-registered main outcomes, that is this physical or sexual abuse, because we measure so many things in the survey that of course we will be able to find effects on many different things and for different subgroups and so on.

Andreas [00:23:29] But in order to be able to use p-values and inference correctly, where we some of it and that's always hard, right it's always hard to choose example, what are you going to commit to actually testing rigorously with your p-values and then of course you can do a lot of exploratory work, but then that should ideally be replicated in order to be able to be sure about the effects, I would say. So yeah, physical and sexual abuse was our main outcome.

Jennifer [00:23:59] Okay. All right. So let's talk about the results. What was the effect of a job offer on employment and earnings? So basically a first stage here.

Andreas [00:24:09] Yeah. So that was we were really we didn't know what to expect as it was this previous paper by Chris Blattman and Stefan Dercon. They had a randomization in Ethiopia in more urban areas with both men and women and they found that they didn't even find a first stage after six months they found out that most people had quit. So, so, so we were really unsure about we're going to find that first stage. We thought that we had a higher likelihood due to their semi-urban nature of our areas and also because we only had women and we did find a large effect, I would say, on the probability of having a job after six months so as not perfect compliance by any by any means and we wouldn't expect that or even want that. Right. So remember, these are women that everyone are applying for a job. So a lot of the women in the control group are still applying for other jobs and managed to get other jobs.

Andreas [00:25:02] And we definitely don't want to restrict their ability to have other job. So around the 30%, 29% in the control group managed to get another job. And in the treatment group, not everyone started the job that they were offered. So it's increases to around 70% for the treatment group. So there is a very clear and strong first stage on employment, but it's definitely not 100%. So a lot of women don't want to start because after they are offered a job, they, they get to hear about their earnings and how much they have to work and so on. So yeah.

Jennifer [00:25:40] It seems a lot less pleasant than they thought.

Andreas [00:25:42] Definitely as the earnings are quite so I mean, it's obviously a lot of money for so compared to the control group, they get richer but it's not they expected more so they they earn around \$38 per per month and work six days a week. And yeah that working conditions are quite harsh but we see large effects on earnings. I mean if we if we compare the the treatment and control after six months, we see that the treated women they have around double earnings than the then a control women and also they have higher incomes as well if we take incomes from any source. And then going back to this like stalk these hierarchies and so on our status within the house. So we see that that yeah, so women's share of within couple earnings is increasing a lot. The probability that she earns more than her husband increases from 18% to 32%. It's really a really, really large first stage in terms of both employment and earnings.

Andreas [00:26:46] And furthermore, that that seems to really be the case also over time, so even when they go back after 18 months, we see that there's still a very clear difference in between the treated and control so that more and more women are actually quitting

work. And more and more women in the control group managed to get other jobs, but they're still a 17 percentage points difference after after one and a half years. And as I said, we're still collecting data we know that even after three years, this different between those initially randomly assigned to this jobs and not.

Jennifer [00:27:18] Interesting. Okay. So your your experiment worked here. You were able to experimentally increase employment and earnings. So what was the effect of a job offer on subsequent intimate partner violence?

Andreas [00:27:31] Yeah. So the results shows that, as you said, the strong first stage so women, women start working more, but then we find that there's basically no effect on intimate partner violence. So that's difficult to say right null finding is always tricky, but we don't find a statistically significant effect and we can also react kind of smallish effects. So if we pull our all our data together, for instance, we can reject that the effect would be larger and positive, more than 1 percentage points. That is, it's very unlikely that there that this led to more violence against women, at least where we're quite confident on that we can reject, that we can reject that the effect is very large and protective, and so we can reject medium sized effects. And we really don't find any effects on physical abuse. We find an effect on emotional abuse in the first follow up data, but then that effect doesn't really seem to be there over time. It goes a bit up and down.

Andreas [00:28:30] And here it's also important to say that while pre-registered that we were going to look at that outcome is not it wasn't our main outcome and we we look at many different things. So it may be it may be a fluke, but but taken at face value, we see that the emotional violence is reduced by 5.3 percentage points. And also all different components of emotional violence seem to go down in the short run, at least like humiliation, threats and insults from the partner were reduced. So yeah, so so a mixed bag, but in general, on our main outcome, no real effect. I was a bit surprised. I was expecting actually that would be positive for women to get this jobs.

Jennifer [00:29:14] Positive in the sense of reducing violence or increasing violence?

Andreas [00:29:17] Yes, exactly. Yeah, exactly. So positive in the in the normal people sense that we could reduce violence. Yeah. So I was really expecting that but no.

Jennifer [00:29:28] Yeah. Interesting. Yeah. Null effect papers are always, especially when you put all this effort into writing in RCT and you get a null effect, it's like it's mostly for publication reasons, you know, it's harder to publish. Everybody wants to see stars on the regression, but it's important to know if it doesn't have an effect. Were there any differences across different types of women?

Andreas [00:29:50] Eh surprisingly little else, I guess the total take away. So we did a lot right. We interacted treatment with all our baseline baseline control variables so for instance we don't see different in effect, depending on whether the women had worked before, whether they have been abused before, or whether they earned more than their partner before or not, whether their partner was working, so really not much. And also, we did this we used this generic machine learning approach to like let the computer try to find heterogeneity for us because you can do so much better and also more honest in a sense, because it splits the sample like data minus one sample and tested in the other other sample.

Andreas [00:30:34] And so we didn't really find anything there either. So we found some effects on um then when we looked at like bargaining power. So baseline bargaining power, we found that those women had had more bargaining power at baseline that was more protective for them to to get work. But that's I mean, that's one out of I don't know how many variables were tested and so just based on that, it's a bit unclear. It, of course, fits some previous theories, but again, I mean, there's so many theories here whatever we find would fit some theory. And and I also think that those results weren't super robust when we play around with a coding and like when we code bargaining power in different ways and so on. So I would say that the takeaway was for me that was surprisingly little heterogeneity because a null finding could have been because it affects some women in one direction and other women in another direction. We don't find that actually seems to be equally equal zero for or for most of them yeah.

Jennifer [00:31:39] So. So another reason you might get a null result is just that like your outcome measure of IPV is not as good as you thought it might be. And as you discussed before, a major challenge in studying outcomes like intimate partner violence is that it could be underreported. So women might not feel comfortable telling surveyors that they're victims. And even more challenging interventions like employment might change their willingness to report, which then makes it difficult to tell if any effects on reported IPV are due to changes in reporting or changes in actual IPV, or if those things are canceling each other out somehow. So you do something really clever here you use list experiments to address this. Tell us how those experiments work and what you find.

Andreas [00:32:21] Yes, sure. So I agree. In general, it is an important point that intimate partner violence is difficult to measure and that it may be underreporting and so on. And in particular this fact that yeah, so what's what you get when you do a survey, you get the both the abuse and their propensity to report it. It's a functional thing. So we can't really separately identify the two. Right. So, so we may worry that the people underreport, but we may also worry that their employment affects affects reporting, as you said. So I think that's that's always a very, very tricky question, but I still want to go back in like so on a general level, like this underreporting, I think it's is probably a more problem in some settings than in others. So I said before, like partner violence is really accepted in this region. So it's not really that stigmatized people think that husbands are allowed to beat their wives and and also that the just the high levels of reporting that they actually do see suggests that it's not so stigmatized. I'm not sure how much underreporting there actually is that there's probably something for sure, but I'm not sure how big of a problem it is in in all parts of the world, at least.

Jennifer [00:33:40] That's a great point yeah.

Andreas [00:33:41] But then economists usually want to see, like either they want to see broken bones or they want to see like hospital hospital data or they want to see like police police data, right.

Jennifer [00:33:52] Yeah, in the data for data purposes, we don't actually like seeing broken data.

Andreas [00:33:55] Exactly.

Jennifer [00:33:56] Yeah.

Andreas [00:33:57] Good clarification yeah that's true. So so we're crazy, but not that not that crazy, but that's just nonexistent right in these in these settings, but also looking at like the US or Norway right it's there you can really talk about underreporting right. We know that people when we do the National Crime Survey in Norway. We know that most people don't report the violence they have been exposed to. And why would like them that the selective underreporting was so different there I think there's a bit of I don't know. So economists are adjusted too confident in like registered data as compared to survey that that has some some skepticism against survey data, but I actually think the survey data is probably the best we can have when when we want to look at domestic violence rates.

Andreas [00:34:46] Yeah, so that's on a general level, but then of course there are these problems and we want to investigate them as good as we can we use this list experiments are sometimes also called like item count technique. And the way this works is that you, you randomly divide a sample and then you instead of asking people what have actually happened to them, you ask people, how many of these things have you experienced? And then you ask them about the four things that you really don't care about. So you ask them, well, have you been to the capital? Can you borrow money from your family members? Do you have poor friends? Have you been to the cinema? Like stuff we really don't care about in this kind of setting, right? So and then they we get a measure from that so so the control group only gets those questions. Half of the sample only get those four statements and say that they answer on average that well, two of those things are true.

Andreas [00:35:46] Right so on average they answer two then we give the exact same questions to the treatment groups who are randomly assigned the other half to get the exact same four questions, but in addition, they get the question that we're actually interested in, not a statement that we're actually interested in. So we ask them how many of these statements apply to you? And then we have our additional question that is about about intimate partner violence. So say that in the control group again, that around two on average were the number that that applied to these control questions and then if we would find an average of 2.5 and in the treatment group, we could be quite confidence to say that, well, this is driven by this extra question. And that would imply that around 50% of the women are abused by using this technique. And then that can be compared to and the answer you get when you when you ask them directly and this has been used quite a bit in different settings, and when we used it, we didn't find any and a difference between whether we asked them directly or whether we used this more like hidden technique. So first of all, was it clear the the description of the list experiment I should ask.

Jennifer [00:37:00] Yes. Yeah, yeah. And I think just to clarify to you, like, I think, you know, one, one reason this is this is a neat approach is that, you know, for any individual woman, you don't know if she was if she answered yes or no to the IPV question, but you get this group average, which is what you really need in a setting like this to be able to see, you know, are the survey data giving you an accurate measure or just as an outcome measure more broadly for the group so it's really useful for researchers.

Andreas [00:37:27] Yeah, that's a good clarification. I think it's a that's the thing that's we want know, we want to get this measure, but once we have the averages, we can different even if we can't say about specific women, we can look at specific groups of women and so on and compare compare averages. I think that's that's a good point. But also, I think it's there are some downsides, right. So that's the first the biggest downside, I think, is that it is extremely costly in terms of power. I think that I did not appreciate that before I before I started this. So so what people do usually then it's like, okay, so they use this list experiment and then they compare it to their other measure and then they say, Oh, it's not

statistically significant, the different, but then of course, since, you know, since you are using a measure to pass a lot of noise by construction, it's very likely that you have a lot of variance. And it's very yes, it's very easy to find that they're not statistically significantly different. So--

Jennifer [00:38:23] Got it.

Andreas [00:38:23] I said and they were really similar as well. Right. But that's I think that was underappreciated by me. That's something I learned from a poli-sci paper from Blair and coauthors. And they demonstrated lists experiments that frequently require 14 times more observations to produce--

Jennifer [00:38:39] Oh wow.

Andreas [00:38:39] Prevalence estimates. Yeah. I mean, that's not what we have in a normal in a normal RCT.

Jennifer [00:38:44] Yeah.

Andreas [00:38:44] So I think yeah, yeah. I'm, I'm a bit on the fence there, are there other ways of measuring this that may be better. So Johannes Haushofer and co-authors they have a recent paper where they look at cash transfers and psychotherapy and they look at the effects on violence and they use like an envelope task. So instead of using list experiments or something else, people like report by putting their answers into an envelope and that may also conceal their concealed answer. And so I think this is an area that we can do more yeah.

Jennifer [00:39:19] Yeah. I love these different approaches to like getting people to that are incentivizing people to tell the truth in these settings where they might not otherwise want to. Very neat.

Andreas [00:39:28] But also I want to say I don't think the problem is super I think the problem has been exaggerated and I think the solutions have been have been oversold. So I think I think we have the list experiment is very problematic since it's so underpowered in general.

Jennifer [00:39:44] Yeah.

Andreas [00:39:44] And that I think the problem, given that is so accepted in this area, I think the problem is probably not that big.

Jennifer [00:39:49] Yeah. Yeah. I mean, I definitely take the point that this is I mean, it sounds like in Ethiopia, underreporting is not a challenge, but I would be interested to see even just experiments that, like, compare the outcomes of list experiments or envelope experiment experiments or something like that with official survey data in a variety of different places looking at like sexual assault, domestic violence, like it does seem like it'd be a bigger problem in other places.

Andreas [00:40:14] Oh yes, I agree. And also, like before and after "MeToo," like other structural changes would be interesting. Yeah. Yeah. Let's see if.

Jennifer [00:40:23] Research idea for people. Yeah.

Andreas [00:40:25] Yeah. Listeners can send in all their--

Jennifer [00:40:29] That's right.

Andreas [00:40:30] Experiments. We can we can do it.

Jennifer [00:40:31] Figure it out.

Andreas [00:40:31] Or someone else can yeah.

Jennifer [00:40:32] Totally. Okay. So what are the policy implications of the results of this study? What should policymakers and practitioners take away from from your results?

Andreas [00:40:43] Yeah. So in general, policymakers should probably never take too much away from a single paper, but in in terms of if you take our results at face value, I think that we know that female employment is important, right? And that's like whatever we would have found here would have been like, okay, female employment is important. If we would have found that it would have increased violence, we we should have to think about other ways to reducing that and put in like other types of measures. But, but here we find out that we can really reject that it has negative effects that is in the in the normative. So we can really reject that, that it increases violence and that's good, right that mean it really means that that it's even more likely that the most of the positive effects that come from that women are working and here I'm thinking about especially long term effects about how this probably in the longer run affects attitudes toward gender equality, towards family life and so on. That in the long run are probably likely to reduce violence quite a bit. So we know that there are a lot of positive effects of female employment on kids and on on the earnings definitely and so on. But there has been this worry that, well, perhaps it's a perhaps it's increases abuse and our results at least show to show that they did not. So that's that's a very very good result I think that's that's yeah but.

Andreas [00:42:07] Then of course there are a lot of caveats to the so our results are very peculiar. It's a very specific setting that's always the case. But but remember here we are looking at women that are applying for jobs, right so what do people mean when they say effects of female employment people probably have in mind like a broader construct than what we're actually identifying as have met, for instance be the case that it is a it's in the chain of actually women getting work that that is happens earlier. I'm not very clear now what about like so when you start to negotiate at home that you are going to apply for a job for instance may be that that has has an effect, but that's not something that we are able to capture here.

Jennifer [00:42:50] Yeah. So if once a woman decides to go out and apply for a job, then that's the the decision that prompts more violence at home or something. Then the control and treatment group are going to be the same here. Yeah.

Andreas [00:43:02] Yeah.

Jennifer [00:43:02] That's interesting.

Andreas [00:43:03] Yeah. No, you said it much better. I mean, thank you. And, and also so I've been pushing a bit like pushing on the fact that we're estimating individual effects of, of employment and that's true. Right. And that's, that's interesting because some of the

theories really have to do with individual things. But I think about these things I think that well, perhaps it is the local level that is important. I mean, from a bargaining framework is definitely the case that that if women have more options, that adults had options that are not determined by whether you are actually working or not, whether you can work. So I think that perhaps female employment at the aggregate level is the more interesting, or at least it's at least another interesting level to analyze this. I think that there are definitely some things with with our experiment that does not speak to to everything as no studied does, of course.

Jennifer [00:43:53] Right right right.

Andreas [00:43:53] But but it's important to keep that in mind I think.

Jennifer [00:43:56] Yeah. Yeah. I mean, I think a bunch of the studies you highlighted at the beginning, were looking at more of this like local or community level. And I think you're right, we, we needed this individual level experiment to be able to see because a lot of the mechanisms we're hypothesizing here are really individual like household level mechanisms or channels. And so I think it's really interesting that you don't see these big unintended costs that people have been really worried about, at least in this setting. So yeah, I think it's really reassuring. So I've been working on this study for a while. Have any other papers related to this topic come out since you all first started this project?

Andreas [00:44:35] Oh yes. A lot so this is a fascinating time to be an economist. There's so many smart people working on so important topics. It's just it's amazing. Oh, yeah. It's a it's a great time to be alive as you say. It's great. So there's been a there's been a lot of papers. First of all, there's been several of these Bartik technique, as I found a particularly interesting one, this one by Sanna Bergvall, she used the Swedish register data and she finds a backlash in Sweden. So remember when we started this so to my framework or our framework was more like, okay, is probably the case that that employment is most protective in settings where gender equality is already good and that it could be really lead to more abuse in settings where where acceptance of violence is high and so we expected in Ethiopia, there would be like a case where we would be more likely to find out that that employment leads to more violence. But now I'm not so sure what I would expect and I more take the literature that has come out come out since since we started so for instance I would not have expected this backlash finding that that Sanna finds in Sweden such offense that that when the local labor market conditions are good for women, then more women are abused in Sweden. And that's that was very very surprising by the but interesting.

Andreas [00:45:58] And then there's also with other kinds of studies that has just been like difference in difference studies. One one study I really like is by Deniz Sanin and I have no idea how to pronounce her name, but it's this a very interesting study on coffee mills in Rwanda. Rwanda is using a government induced expansion of coffee mills and using like a diff in diff to to look at before and after and treat the the non-treated areas that the really local level with geo spatial data finds that women are more likely to work for cash in the areas where there are these coffee mills and they are less likely to report domestic violence. So so again, the result in the opposite direction and I mean my prior is that basic a flat now, I have no idea what to expect. So we don't find anything in any direction and there are so many good quality studies finding different things. So I'm really hoping for even more studies, of course. And yeah, let's see, let's see in 5 to 6 years what what the research says then.

Jennifer [00:47:03] Yeah. Well so along those lines, what, what's the research frontier here. What do you think the next big questions are that, that you and others in this space will be thinking about in those years ahead.

Andreas [00:47:16] Yeah. No. So I still think it's unclear the effects of employment. And I would like to see especially more field experiments in different settings, preferably pre-specified according to our standards, high powered and so on, and that that would be very useful. But there's a lot of other other things as well that people are starting to work on and that are that are very fascinating. So yeah, so, so we are hoping to start up a new randomization of, of jobs to men in Ethiopia instead of to women.

Andreas [00:47:49] So there are some factories that hire men instead that we're hoping to I'm hoping to work with on the well, that would take ten years, but then we would know if it's actually a different effect for when men get jobs than when women get jobs in the in the like, a very similar setting. But otherwise, I think it's as I said, as this is a very active research area. So I think that about Abi Adams-Prassl and co-authors. I think you had Emily Nix on your podcast. Right. So they have they are looking at like the dynamics of abuse using Finnish registered data. I think that's that's very promising and I'm sure that's going to spark a lot of a lot of new new research as well. Looking at like the when we see that women have been abused, what happens before that and what happens after, like especially with employment, I think it's like a lot of controlling behavior, limiting women to to work and thereby the man gets more power and can be more abusive in a sense.

Andreas [00:48:45] I think those are are really interesting. I think person to follow in this space is Sofia Amaral in general. You had her on the podcast as well. She's doing a lot of interesting work with like the police, so both in the UK and in India. And I think that in order to reduce violence, I think that law enforcement is probably probably very important as well and a huge problem. And in many settings that I'm working at least. We have the other really neat and new paper so Eleonora Guarnieri and Ana Tur-Prats again they have a paper on conflict related sexual violence. So they, they look at the sexual violence during in conflicts, which is obviously a huge problem and a human rights infringement and and they find that the gender, gender attitudes and the differences in gender attitudes among the like opposing groups really is really seems to be important for sexual violence and conflict. I find that super fascinating as well. And then, of course, the bigger research area we talk about gender based violence or the the new research on sexual harassment. This I find it extremely fascinating. And I really want to see in a couple of years what comes out of that. I think it's just such a growing field. So, yeah.

Jennifer [00:50:03] Yeah, I totally agree. Yeah. And the paper that I had Emily on, Emily Nix on to talk about was her the paper on sexual harassment that team had done. And they, they now they've been churning out papers on this general topic. They have is amazing data. And I agree there are so many really smart, creative people working on these on these topics right now and--

Andreas [00:50:22] It's fantastic.

Jennifer [00:50:23] Really fun to watch what people are figuring out. Well, thank you so much.

Jennifer [00:50:28] My guest today has been Andreas Kotsadam from the Frisch Center in Oslo. Andreas, thank you so much for talking with me.

Andreas [00:50:34] Thank you. It was great.

Jennifer [00:50:40] 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 and other contributors. Probable Causation is produced by Doleac Initiatives, a 501(c)3 nonprofit, so all contributions are tax deductible. If you enjoy the podcast, please consider supporting us via Patreon or with a one time donation on our website. Please also consider leaving us a rating and review on Apple Podcasts. This helps others find the show, which we very much appreciate. Our sound engineer is Jon Keur with production assistance from Nefertari Elshiekh. Our music is by Werner and our logo was designed by Carrie Throckmorton. Thanks for listening and I'll talk to you in two weeks.