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Peers and Professional Deviance

Predicting Police Misconduct with Peer Misconduct

Michael McCamman ·

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Abstract Criminologists and criminal investigators have long understood that peers play an important role in predicting at least some criminal behavior. Despite this, such social learning theories, or other theories of deviance more generally, have seldom been applied to police misconduct. Using data from the Tucson Police Department, I test whether increased exposure to peer officer misconduct increases the hazard that an officer will engage in misconduct. Results suggest that it does; peer misconduct is an important and significant predictor of future officer misconduct. I argue this finding not only adds to our understanding of police misconduct, but also represents a renewed effort to understand police misconduct using theories of deviance more generally of which social theory is a prominent example.

Keywords police · misconduct · social learning ·

1 Introduction

Over the years multiple studies have shown the important role police-officer characteristics play in predicting police officer misconduct. The result is that we actually know a lot about police misconduct; for instance less experienced officers are more prone to generate a sustained complaint (Harris 2016) and that levels of prior professional and criminal problems are higher for officers who engage in career ending misconduct than for officers who leave the department of their own volition (Kane and White 2009).

Researchers have even tried to apply more general theories of deviance to police misconduct. For instance, Harris (2016) views police misconduct

Michael McCamman
School of Government and Public Policy, University of Arizona
E-mail: michaelmccamman@email.arizona.edu

through the life-course perspective: misconduct onsets early in the career and, generally over time will desist in most officers within several years. Donner and Jennings (2014) have applied self-control theory to misconduct; officers with lower levels of emotional and self-control are much more likely to engage in misconduct. And, most importantly for our purposes, Chappell and Piquero (2004) have argued that social learning theory may explain police misconduct: that what one learns from peers is an important predictor of behavior.

The idea that police misconduct may be subject to the same processes as deviance more generally is powerful; it unlocks a variety of theories that we can use to understand how police misconduct operates. In particular, and consistent with Chappell and Piquero (2004), it suggests that peers may play a very important role in misconduct.

2 Social Learning Theory

According to Akers (1973), deviant behavior can be explained through a process called social learning. The idea is relatively simple: the individual of interest is exposed to a variety of behaviors by individuals, generally family and peers, the individual socializes with. As the individual associates with others, the composition of the behavior of those he or she associates with defines certain behaviors as deviant and others as non-deviant. So, for instance, if one only rides in cars with individuals that speed, and absent some other input such as a policeman pulling over the driver, the theory holds that one defines speeding as normal, non-deviant, behavior.

But, of course, individuals are not only exposed to one type of behavior; in reality most individuals are exposed to both speeders and those that obey the speed limit. According to the theory, the balance of these inputs shapes behavior. Higher intensity and frequency of contact with speeders than non-speeders, and one sees speeding as non-deviant. This idea is called differential association: the difference in association between 'deviant' and 'non-deviant' influences shapes what is and is not deviant.

But behavior also generates consequences, both for the individual and for alters that individual learns from. For instance, one could observe a peer that speeds get pulled over or, perhaps to greater effect, experience a speeding citation for oneself. That is, deviant and non-deviant behavior are reinforced through consequences that stem from both; even in the presence of deviant influences, an individual can observe consequences of that behavior that discourage it. This process is called differential reinforcement: behavior is not only shaped by the balance of modeled behavior, but also through the consequences experienced or anticipated, directly or vicariously, by the individual.

Social learning is an intuitively attractive proposition; we all sort of know our peers matter to our behavior, certainly in youth. And it makes a lot of sense in the police context too; researchers have long known that police are socialized into their profession (Conti and Doreian 2014) and departments have norms of behavior that are important in shaping officer behavior (Barker

1977). This suggests that social learning likely plays an important role in a particularfacet of policing research: misconduct.

3 Social Learning and Police Misconduct

Applying social learning to police misconduct is a relatively straightforward matter: as police work with other officers, they are exposed to behaviors from those officers. That behavior, the theory holds, shapes officer behavior. So, for instance, one would expect an officer who enters a department with an informal social norm of writing citations at 8 miles per hour over to, over time, converge on that norm.

While the speeding example is fairly innocuous, we can apply social learning to much more pernicious examples. One would expect, for instance, that officers can learn from peers that accepting free gifts and meals from local businesses is an absolutely acceptable behavior even if it is a violation of larger professional standards, departmental policy, or law. That is, in social learning parlance, the behavior may be 'deviant', but due to social influences that officer comes to define the behavior as non-deviant: normal.

While much police misconduct is undoubtedly undetected, it's important to consider that misconduct can often result in consequences: complaints filed, departmental review, and other professional repercussions. That is, reinforcement also plays an important role in the police setting: a department that publicly cracks down on accepting gratuities and punishes a few officers, for instance, is likely to not only specifically deter those officers from accepting gratuities, but to generally deter the behavior as other officers vicariously learn from the experiences of their peers in ways that shape behavior going forward.

This is, by no means, meant to be a comprehensive analysis of all the ways social learning can play out in police misconduct. Rather, my point is that social learning theory appears applicable to misconduct. That means we can talk about and understand misconduct through a social learning lens.

4 Previous Applications of Social Learning

The best cited, and as best as I can tell the only, attempt to apply social learning to police misconduct in an intellectually rigorous way is Chappell and Piquero (2004) analysis of police misconduct through the social learning lens.

In their analysis, Chappell and Piquero (2004) pick up on many of the themes I outlined above: they consider the importance of individual definitions of deviance, association, and reinforcement in the probability of misconduct. Specifically, using a vignette experiment they show that officers who define misconduct in the vignettes as less serious, think the misconduct should result in less punitive repercussions, and think their fellow officers consider the misconduct less serious are more likely to have generated a complaint at some point in their career.

While their research design allowed them to test some of the important mechanisms of social learning, Chappell and Piquero (2004) were ultimately unable to look at peer behavior, only an officer's perceptions of peers. This leaves an important gap as previous social learning research has generally focused on the behavior of peers and not perceptions of peers in shaping individual behavior (Akers and Lee 1996; Reed and Rountree 1997). It is to that application that we now turn.

5 Current Research

In this project I will attempt to model police officer behavior, in particular police misconduct, as dependent on the behavior, in particular the misconduct, of other officers. Immediately, however, a methodological issue arises: it is impossible to know underlying and unrevealed misconduct. This means, as is true in my data, that what we are actually talking about is only misconduct that is revealed through some mechanism: complaints, audits, etc. Not only does this mean that we are undoubtedly undercounting true misconduct, it also means that there is a tension within social learning theory: if we assume, as is often the case, that revealed misconduct of an officer results in professional discipline of that officer, then differential reinforcement holds that others can vicariously learn from that consequence. That is, the theory holds that watching a peer receive punishment for a behavior that the officer engages in, or even learning about that punishment later, should discourage the officer from that behavior.

To navigate this issue, I take advantage of time. In particular, I focus on the timing between when misconduct is known to the department and when the department completes its investigation and either dismisses or takes disciplinary action. That is, I consider the effect of misconduct that has been revealed but not yet disciplined as well as misconduct that has been sanctioned. This generates several testable hypotheses:

H1) Differential Association: Increased association with officers who engage in misconduct increases the probability an officer will engage in misconduct.

H2) Vicarious Reinforcement: Increased association with officers who are disciplined for misconduct decreases the probability an officer will engage in misconduct.

H3) Direct Reinforcement: Officers who experience discipline will be less likely to engage in misconduct.

It's important to note that hypothesis 3, direct reinforcement, is seemingly at odds with earlier findings that earlier misconduct is associated with increased probability of misconduct (Harris and Worden 2014). This may be so, but that does not necessarily negate that discipline may decrease the probability of misconduct below where it otherwise would have been; this point will become much clearer in the modelling strategy and discussion.

6 Data

Data for this project comes from the incident dataset of the Tucson Police Department from 2012 to mid-2017. For this department, an incident is technically a call that results in the generation of some reporting: an arrest was made, property was reported damaged, etc. Incidents were used in lieu of calls due to an oddity in the way data is recorded by the department such that incidents can have multiple officers assigned while calls cannot.

Using the patrol officers from this dataset, I first built a table of each officer-incident in the dataset. Then, for each officer incident, I constructed a weighted ego-centric network for that officer-incident up to that point. That is, at each officer-incident I generated a list of each officer they had worked with up to that incident as well as the number of times they had worked with that officer. This provides an estimate of contact frequency with all available alters.

From each ego-centric network, I then calculated which of the alter officers had pending misconduct allegations against them that would eventually be sustained as well as which officers had been disciplined for earlier misconduct. Results were then tabulated to generate, for each officer-incident, a count of the number of ties up to that point, the number that had pending misconduct claims at the time of contact, and the number that had been disciplined at the time of contact. Importantly, this is all weighted; so, for instance, if up through a given incident an officer worked with Officer A 10 times, Officer B 20 times, and Officer C 5 times, results would indicate that officer had 35 edges or ties and, assuming officer B had a pending misconduct claim and A had a previous discipline at the time of contact, it would indicate 20 pending and 10 disciplined. This is an attempt to capture frequency of contact, an important concept in social learning discussed above.

Finally, I calculated the dependent variable: misconduct. This was in a separate dataset and not explicitly linked to incidents. To determine the dependent variable, an Officer was determined to have engaged in misconduct if the initiation of the misconduct issue was subsequent to the initiation time of the incident, but prior to initiation time of the next incident that officer worked. Thus, misconduct that was not linked to an incident, for instance a uniform violation, was still attached to the closest preceding incident as a way of measuring that officers social ties at the point of misconduct.

Several assumptions are implicit in this generation process that are worth making explicit. First, I assume that the intensity of contact between officers assigned an incident, as well as across incidents, is equal. This is almost certainly not true; a patrol officer assigned to work the police line at a major incident certainly has less social impact than one working side-by-side with the officer in question. However, as a matter of estimation, this is at least a plausible way of approximating association given data limitations.

Second, the assumption that will eventually underpin the analysis is that incidents are exogenously assigned. Strictly speaking this is not true; in the Tucson system officers can assign themselves to incidents, although discussions

with staff indicate this is relatively rare. More pernicious is probability that dispatchers tend to assign certain officers certain types of calls or to work together on an incident. Again, however, this is likely to be limited in the Tucson case as staffing cuts prior to the period of analysis have left the department staffed such that officers generally precede call-to-call and calls in the city are generally assigned to whatever officer is next available.

7 Analytic Strategy

Previous Analyses have tended to analyze police misconduct as a binary outcome of the officer's career (Kane and White 2009; Terrill and Ingram 2016). I take advantage of the data I have to instead consider misconduct in a discrete time context: i.e. I am attempting to model the probability an officer engages in misconduct on or immediately following a given incident. That is, the officer-incident is the unit of analysis, not the officer generally. This creates an immediate issue: officer level correlation. Thus, I adopt a hierarchical logit model with an officer-level random effect. Similarly, one may expect incident-level correlation as multiple officers face discipline following an incident gone wrong; so an incident level random effect is also included.

The officer-incident level analysis also has the benefit of addressing a systematic issue in misconduct research: that misconduct is correlated with productivity (Lersch 2002). That is, previous research indicates that more productive officers are more likely to generate a misconduct issue, often mild in nature, simply as a result of opportunity. Thus, my results are unlikely to simply identify productive officers on account of explicitly taking into account incident loads.

Consistent with the prior literature on misconduct and social learning, I also include a variety of possibly important control variables. First, I include the number of years the officer has worked for the department as a measure of experience. I also include the weighted number of ties that officer has to that point. This is included because, social learning holds, its not just total exposure that matters, its exposure to deviant and non-deviant. Thus, we're looking at links to officers with known misconduct, controlling for links more generally.

Finally, because this data is truncated-we do not know about ties or misconduct prior to the start of the study period-I include a fixed effect for officers that started at the department prior to the study period. This is excluded from results tables as it is seemingly meaningless for purposes of interpretation, but is available upon request.

8 Results

In table 1 I first present descriptive statistics of the data.

Table 1

Statistic	N	Mean	St. Dev.	Min	Pctl(25)	Pctl(75)	Max
Total Weighted Ties	701,551	1,697.878	1,573.759	0	498	2,464	14,052
Ties With Pending Misconduct	701,551	86.434	94.656	0	19	124	1,063
Disciplined Ties	701,551	716.419	808.786	0	110	1,050	6,821
Previous Disciplines	701,551	1.479	1.843	0	0	2	14
Years Service	701,551	7.505	6.589	−1.000	2.000	12.000	35.000

Of immediate note is simply how high average tie weights are. On average, an officer-incident has over 1,600 ties and this average is massively skewed with one officer-incident having more than 14,000 weighted ties.

The numbers become much smaller and more manageable when we look at pending misconduct ties, resolved misconduct ties, and previous disciplines. Here we see that the average officer-incident is associated with a low level of pending ties–less than 90 out of almost 1,600 total ties–but a much larger level with disciplined misconduct. On average the officer at any given incident had experienced professional discipline one and a half times.

The statistics also reveal that the officer at the average officer-incident had over 7 years experience, a level of experience that suggests for the most part officers will have aged out of any serious misconduct issues associated with inexperience (Harris 2016).

We should also consider the nature of the dependent variable: misconduct. At the incident level, misconduct is incredibly rare: infact, only 222 of the more than 700,000 incidents were associated with misconduct allegations that were ultimately sustained: a misconduct rate of ˜.03%. Again, however, this is at the incident level, so it's not terribly surprising that the probability would be quite low on any given incident.

In Table 2 I present the full results of the analysis.

Results are generally consistent with expectations: when controlling for the total weight of ties, the weight of ties to officers with revealed misconduct that had been revealed but not yet disciplined significantly increased the probability an officer would engage in revealed misconduct at or immediately following the incident.

Previous disciplines against that officer also had a significant effect, with each preceding discipline decreasing the probability the officer would engage in misconduct at a given incident in what was the largest substantive effect found in the analysis.

The total weight of the ties was also significant with more ties decreasing the probability an officer would engage in misconduct at a given incident. Given the modelling strategy this makes sense as it is holding constant the number of misconduct ties; meaning these are likely generally non-deviant ties.

Some variables were expected to be significant but were not. Of theoretical note is the disciplined misconduct ties. While directionally the results were as expected, the effect is far from significant at traditional levels, a point I

Table 2

	Dependent variable:
	WasMisconduct
Total Weighted Ties	−0.001*
	(0.0003)
Ties with Pending Misconduct	0.003***
	(0.001)
Disciplined Ties	−0.00004
	(0.001)
Previous Disciplines	−0.300***
	(0.074)
Years Service	0.002
	(0.013)
Constant	−7.500***
	(0.149)
Observations	701,551
Log Likelihood	−1,925.126
Akaike Inf. Crit.	3,868.251
Bayesian Inf. Crit.	3,971.401
Note:	*p<0.1; **p<0.05; ***p<0.01

will discuss at some length in the discussion part of this paper. Similarly with years service.

Of note in the results not shown here, but analyzed separately using the model, is that the predicted probability of an officer engaging in misconduct at any given incident reaches a maximum of 1.6%. This makes sense, it would be very unexpected for officers to engage in misconduct at one out of every 100 incidents they work. In fact, results reveal that at mean level of all other variables the probability of misconduct on any given incident is minuscule: 0.02%; meaning an officer would need to work approximately 5,000 incidents on average to generate a misconduct event, an impressive number given the average number of incidents worked by an officer in the dataset was just over 1,000 over the multi-year period. These numbers are not outlandish with what I would expect.

9 Discussion

Results of this analysis are generally consistent with expectations: the frequency with which an officer works with others with revealed misconduct predicts that officer's subsequent misconduct. This is generally consistent with

what one would expect under social learning theory: officers learn deviant behavior from others who engage in it.

Similarly, results indicate that previous disciplines drastically reduce the probability of misconduct. As I alluded to in laying out the data, this is seemingly at odds with previous findings that indicate that one of the most effective predictors of misconduct is previous misconduct (Kane and White 2009). To my mind, however, there is no conflict here: the officer level random effect should take care of any officer level variations in propensity to engage in misconduct, meaning that this result indicates that for any given officer, a discipline decreases the probability of subsequent misconduct. Their probability may still be elevated relative to other officers, but is reduced following the disciplinary action.

While the evidence for differential association and direct reinforcement is strong, the evidence for vicarious reinforcement is limited. At first, this result surprised me. After thinking about it for some time, however, I realized that there is an underlying assumption in this analysis that I never made explicit or considered: that other officers know about this discipline their peers experience. In some cases, this may be true in which case we would expect vicarious reinforcement to have an effect. However, in many cases departmental responses to misconduct are private personnel matters and not shared with others unless that officer chooses to share it or the discipline is obvious, for instance in the case of termination or a prolonged suspension. Thus, while not what I initially expected, the null effect of discipline is not entirely unexpected.

Similarly, I was initially surprised that years working at the department had no effect; a finding that is seemingly inconsistent with prior research indicating experience is an important predictor of misconduct (Harris 2016). This result, however, is again likely a result of model specification: I am also measuring experience indirectly through the measure of ties; these will generally increase as an officer works more incidence. That measure has the expected effect, and likely nulls out the effect of the related years in service measure.

I have already spent some time discussing the limitations of this data as I explained how it was compiled. Again, however, there are some assumptions that were necessary for this observational analysis to precede that are unlikely to hold universally. I'm less worried about these, however, than I am two additional interpretations of my findings. First, it's entirely possible that the results are a result of a snowball effect where misconduct is revealed and that officer then reveals misconduct by other officers he or she has worked with prior to discipline. That is, rather than teaching other officers, an officer is simply revealing. This is, again, an intractable issue in working with only revealed misconduct which is, again, all we can ultimately know. Nonetheless, I think this is an unlikely explanation given the previously understood tendency of police to protect their own (Barker 1977).

The second possible explanation for these findings, especially the finding on previous discipline, is that discipline is not actually shaping behavior, but rather is simply teaching the officer to be more covert in his or her misconduct. This may be the case, but again since we can't know true underlying

misconduct we have to make an assumption here about the causal process. I think the most likely explanation is that at least most of the effect is a result of change misconduct behavior, and not primarily a result of a change in the ability to hide that behavior.

It's worth taking a moment to consider the implications of these findings; why does any of this matter? The answer to this is multi-faceted. First, as a simply matter of understanding police misconduct, this suggests that applying theories of deviance to this matter may be incredibly useful in explaining the phenomena. Second, it suggests that discipline plays an important role in preventing misconduct, and that this effect may be increased if such discipline is known to other officers. While this may introduce personnel matters, and though I could not find support in this analysis, vicarious learning is a promising means of preventing misconduct.

This actually raises a really important question: if misconduct is socially learned, how should police administrators respond to revealed misconduct? One answer is to quarantine so that the behavior does not spread through the department. This is probably not the correct answer as quarantine is likely to allow reinforcement of behavior within the quarantined group. A much better answer probably involves some level of discipline, possibly that others know about, and then spreading the officers throughout the department so that they are exposed to different norms and behaviors which, these results indicate, could decrease the probability as the number of misconduct free officers with whom an officer works grows.

This paper should be understood as simply a first step; an attempt to understand misconduct in a holistic and theoretically motivated way. There are certainly shortcomings to this analysis; but I take a lot of solace in the simple idea that across disciplines and studies, as well as simply intuitively, peers matter. I'm confident this is as true for police officers as it is for gang members, drug users, youth, and everyone else. If nothing else, this paper is an attempt to make the research on police officer behavior generally, and police misconduct specifically, reflect this reality.

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