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Helping Experimental Psychology Affect Legal Policy

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Abstract
Any scientific psychologist who has interacted extensively with police, lawyers, or trial judges has learned that scientific psychology and the legal system are very different beasts. The differences run much deeper than mere language and instead represent different types of thinking-a clash of cultures. This clash is particularly apparent when psychologists attempt to use research findings to affect legal policies and practices. In order for scientific psychologists to work effectively in applying psychological science to the legal system, they will need to develop a better understanding of the concept of policy and the contingencies that exist for policymakers.

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CHAPTER FOURTEEN

Helping Experimental Psychology Affect Legal Policy

GARY L. WELLS

Any scientific psychologist who has interacted extensively with police, lawyers, or trial judges has learned that scientific psychology and the legal system are very different beasts. The differences run much deeper than mere language and instead represent different types of thinking—a clash of cultures. This clash is particularly apparent when psychologists attempt to use research findings to affect legal policies and practices. In order for scientific psychologists to work effectively in applying psychological science to the legal system, they will need to develop a better understanding of the concept of policy and the contingencies that exist for policymakers.

Much of what I have to say in this chapter might seem obvious. For example, I describe how, in order to affect legal policies, you have to know who the policymakers are, you have to know something about how they think, and you have to overcome their preconceptions of social scientists and social science. As obvious as these points might seem, however, I have been surprised at how little thought and appreciation some scientific psychologists seem to have given to these matters. The training and reward contingencies within scientific psychology are poor preparation for the challenges of applying psychological science to the reform of legal practices and policies.

The examples that I use in this chapter are derived from my experience in trying to reform eyewitness lineup policies and procedures in the United States. The problem of trying to reform lineup policies in this country is an enormous one. Eyewitness identification procedures in the United States are not controlled by any central authority; instead, they are under local control, usually at the level of the individual law enforcement agency. There are over 19,000 independent law enforcement agencies in the United States and almost

any conceivable set of lineup procedures can be found somewhere in the country. Furthermore, these procedures are commonly in considerable opposition to the procedures that are recommended on the basis of research findings. Not only is there wide variation in procedures and practices across local jurisdictions, but there is also wide variation in who controls those procedures, and there is wide variation in the attitudes of policymakers who could reform the procedures. At the time of this writing, only a small minority of U.S. jurisdictions has made policy changes based on eyewitness identification research conducted by psychologists, and almost all of this change has occurred within the last 2 years. I have been directly involved in almost all of these changes and each is unique in certain ways. Because some attempts to implement lineup reform have been successful and others have not, I have been able to extract some ideas about what works and what does not work.

There are two important caveats that readers should keep in mind regarding this material. First, the general ideas here are based on my experience with lineup reform, which is but one of many areas in which psychological science can be applied to legal policies. Although similar issues are likely to be encountered in attempting to apply psychological science to other legal reforms, there are likely to be some important differences as well. For example, attempts to reform how juries are selected would have little or no involvement of police. Second, the experiences noted here are based on attempts to reform policies in the United States, and it is likely that some of this information will not generalize to other countries. The United States is quite different from countries where there is more central control of eyewitness identification procedures, such as occurs in England and Wales. In fact, in England and Wales the issue of lineup ("identity parades") procedure has been addressed repeatedly and at regular intervals by legislators and police. The result of this attention is that the procedures are not only more uniform in England and Wales than in the United States, but also more sophisticated. Of course, historical revisions of lineup procedure in England and Wales generally have not been guided by experimental research on eyewitness identification because most of these reforms preceded any such research. Some of the written procedures in England, for example, date back to the 1800s (Police Orders, 1860), and the Home Office Circulars in eyewitness identification procedures date back to the early 1900s (Home Office, 1905).

There is nothing like this historical basis in the U.S. experience with eyewitness identification procedures. In fact, other than some very narrow and questionable rulings by the U.S. Supreme Court in the 1970s (e.g., *Neil v. Biggers*, 1972), procedural and policy issues concerning eyewitness identification have not been seriously addressed by legislators, police, or courts in this country. There simply is no counterpart in the United States to the Home Office approach in England and Wales. It is interesting to speculate that this difference might account for why DNA evidence has uncovered large numbers of innocent people who were convicted based on mistaken eyewitness identification in the United States (see Scheck, Neufeld, & Dwyer, 2000), whereas com-

parable numbers have not emerged in England or Wales. In any case, readers should keep in mind that some of the matters discussed in the current chapter might be unique to the U.S. experience or might be unique to the issue of eyewitness identification reform. Most matters, however, are likely to be broadly true for any research psychologist who is involved in trying to apply research findings to legal policy reform.

This chapter is not about expert testimony. It is true that legal policies regarding the admissibility of expert testimony by psychological scientists have evolved considerably over the last two decades. The general direction of this change in the United States has been toward increased acceptance of expert testimony on eyewitness issues. However, when I refer to the idea of using psychological science to affect legal policies and practices, I do not mean legal policies and practices regarding the admissibility of psychological scientists as experts in trials. Instead, I mean the use of psychological science to address such matters as policies and practices on how to best collect eyewitness evidence, how to interrogate suspects in ways that minimize the chances of false confessions, how to make judicial instructions more comprehensible for jurors, or how to select juries that will have fewer or less extreme biases. Although expert testimony by psychological scientists can be a mechanism or a tool for promoting such reforms, increases in the admissibility of expert testimony by psychological scientists, per se, is not what I mean by *legal policy reform.*

Readers will notice that in this chapter I offer no advice to policymakers, such as police, prosecutors, judges, or legislators, regarding their need to be receptive to findings in scientific psychology. That would be a different chapter. My purpose in writing this chapter is to increase the effectiveness of research psychologists who might attempt to apply scientific psychology to legal policy reform. Generally, I contend that research psychologists are somewhat naive about how to affect legal policies and practices. I base this contention on my own history of wrongheaded thinking and my gradual discovery of more productive ways of thinking about legal policy.

The term *legal policy* is used loosely here to refer to any formalized practice within the legal system. Sometimes these practices are grounded in a written document that was broadly scrutinized and officially sanctioned by a government body. The current guidelines for conducting lineups in the state of New Jersey, for example, are clearly written, broadly available over the Internet, and were officially sanctioned by the Department of Criminal Justice of the State of New Jersey under the authority of the Attorney General of New Jersey. In other cases, however, these practices might be no more than informal understandings about acceptable procedures that are not even written down. The Louisville, Kentucky Police Department, for example, frequently permits detectives to conduct show-ups (rather than lineups; defined below) for identification purposes long after the commission of a crime. The permissibility of show-ups in Louisville is not a written procedure and, in fact, there is almost nothing at all written down in the Louisville Police Department proce-

dures manual regarding eyewitness identification procedures. In such cases, we generally infer policy from practices.

There are, of course, many levels at which to ponder the issue of using psychological science to affect legal policies and practices. For example, there is the question of whether the research findings are reliable and then the question of whether the findings can be generalized outside of the research setting. Those are important questions, but that is not what this chapter is about. Instead, this chapter presumes that there are reliable and generalizable findings in scientific psychology that are relevant to legal policy and the question is how to use those findings to promote meaningful policy reform in the legal system. This task requires a different set of skills and a different type of thinking than the type usually engaged in by scientific psychologists. Indeed, the first problem I describe here, which I call the "single-effects" problem, is perhaps the biggest difference between psychological scientists' usual ways of thinking and the kind of thinking that necessarily characterizes policymakers.

THE SINGLE-EFFECTS PROBLEM

Experimental psychologists are generally quite good at identifying individual effects from the manipulation of variables. The problem is that policymakers must consider a much broader range of possible effects, many of which are totally outside the domain of measurement and often are fully outside the thoughtful consideration of psychological researchers. These other possible effects include financial costs, public safety concerns, and various unintended consequences of specific policies and procedures. The tendency of experimental psychologists to focus intently on a specific dependent variable is important in conducting psychological science, but a restricted focus on a single variable can lead to a myopic view of policy.

In eyewitness identification research, the primary focus tends to be on the dependent variable of eyewitness accuracy. Eyewitness researchers are concerned about procedures that seem to produce less accurate results, especially procedures that increase the rate of mistaken identifications. Consider, for example, the effect of using a lineup versus a show-up procedure for obtaining eyewitness identifications. A lineup is a procedure in which the suspect, who might or might not be the culprit, is embedded among known-innocent fillers. A show-up is a procedure in which the suspect is presented alone to the eyewitness. Research has shown that a lineup tends to be a more effective procedure for protecting an innocent suspect from being mistakenly identified than does a show-up, especially if the innocent suspect happens to resemble the culprit (see meta-analysis by Steblay, Dysart, Fulero, & Lindsay, 2003). Nevertheless, U.S. policies and practices routinely permit the use of show-ups when a suspect who fits the description is detained shortly after crime in a geographic area that would have made it possible for the person to be the perpetrator in question. So, there appears to be a discrepancy between the type of

procedure that experimental psychologists have shown to be best and the type of procedure that law enforcement often uses.

The great temptation for psychologists, given this state of affairs, is to call for the abolition of show-ups. But such a conclusion assumes that a policy on show-ups versus lineups is purely a matter of which one produces the fewest mistaken identifications. It would be a mistake, however, to use current data on show-ups versus lineups to argue for the abolition of show-ups. Even if we assume that the research is totally compelling and that it is definitively the case that a show-up procedure is more dangerous to an innocent suspect than is a lineup, the fact remains that policymakers must ponder a much broader set of effects that might result. Two considerations are particularly important: public safety, and the rights of individuals to be quickly freed from suspicion. In the United States, an individual cannot be arrested without probable cause, but an individual can be detained for a relatively short period of time for questioning—a period of time sufficient for conducting a show-up procedure. Consider now a policy that does not permit show-ups. Suppose a person has been detained who fits the description of the perpetrator and is in the proximity of the crime. From a practical perspective, there is no time to do a lineup unless the individual is arrested. Furthermore, merely fitting the description and being in the general area of the crime is not sufficient grounds for arrest. If show-ups are not permitted, then a potentially dangerous person must be released, perhaps endangering the public. A policy that would routinely permit perpetrators to escape this situation would appear to be bad policy in relation to issues in public safety. Alternatively, consider a situation in which the detained individual is, in fact, innocent of the crime. Both the detained individual and the police have an interest in quickly removing innocent persons from suspicion. Field data from actual show-ups and data from controlled experiments indicate that the dominant response to a show-up is a rejection response (Steblay et al., 2003). Hence, show-ups are relatively effective in freeing individuals from suspicion, and they do so in a quick and efficient manner without the need to arrest a detained individual.

The fact that there are policy reasons to permit show-ups does not mean that show-ups are acceptable under all circumstances. Consider the situation in Louisville, Kentucky, where police often use show-ups days or even weeks after the commission of a crime. In these cases, the policy reasons that are used to justify show-ups (public safety and the need to quickly free a detained person from suspicion) are no longer applicable. Under these circumstances, the research indicating that show-ups are less accurate and therefore more dangerous than lineups, especially after a delay interval (see Yarmey, Yarmey, & Yarmey, 1996), should hold considerably more weight in guiding legal policy.

The general point here has nothing to do with lineups versus show-ups, per se. Instead, the general point is that policymakers often have very good reasons for not being highly influenced by research data, because the research usually measures only one effect rather than the broad effects that might result

from a change in policy. The propensity of experimental psychologists to focus narrowly on a specific effect contrasts sharply with the policymaker's need to analyze all possible effects. As a result, what sometimes appears to be recalcitrance or neglect by policymakers to consider the findings of scientific psychology is not recalcitrance or neglect at all, but rather a consideration of other factors that manage to outweigh the single effect observed by psychological researchers. These other factors are diverse and vary from one policy or practice to another policy or practice. They can include such factors as financial cost, public safety, victims' rights, and the need to balance the risks of falsely convicting the innocent against the risk of falsely freeing the guilty. By understanding these policy concerns, research psychologists can better understand why the research findings can sometimes be trumped by other considerations in the setting of legal policy.

One of the obvious implications of this real-world situation is that psychological scientists need to ask policymakers a lot of questions to identify the foundations for their policies. Conducting experiments and measuring a narrow set of variables could very well miss the mark regarding the critical foundations underlying the policy or practice. This is not to say that the existing policies and practices in the legal system are always well grounded. It is to say, however, that psychologists must first learn about the broad foundations for a particular policy before arguing that an experimental result ought to result in adjustments to it.

WHO ARE THE POLICYMAKERS?

In order to affect legal policy, we have to know who the real policymakers are. That would seem to be a straightforward problem that is easily answered, but this is not always the case. For example, who are the policymakers in the area of lineup reform? For many years, the general presumption of most eyewitness researchers, including myself, was that policies and procedures regarding lineups were under the control of the courts. Accordingly, expert testimony geared at criticizing how lineups were conducted in individual cases was presumed to be the best mechanism to effect changes in those procedures. In fact, however, despite a considerable amount of such expert testimony spanning over 25 years, no genuine success has been achieved in getting U.S. courts to issue guidelines for reforming lineup procedures. The reason for this appears to be that judges in the United States do not think it is their role to tell police how to collect evidence. Instead, U.S. judges consider their role to be interpreters of the law. To the extent that the manner in which evidence is collected violates the U.S. constitution, such as searching a home without a legal search permit, then judges are willing to concern themselves with the procedure that was used to collect the evidence. But the use of a poor lineup procedure, or the failure to use the best lineup procedures, is not a constitutional right. As a re-

sult, judges have played no significant role at all in promoting lineup reform in the United States.

Intuitively, it makes sense to assume that police are the policymakers when it comes to lineup procedure issues in the United States. However, it is not strictly true that police control policies on lineup procedures. Although police conduct most of the lineup procedures, it has become increasingly clear that it is prosecutors who carry the greatest weight in determining policies and procedures on lineups. The extent to which this is true varies somewhat across jurisdictions, but no lineup reforms in the United States have yet been implemented without the blessings or encouragement of the chief prosecutors in their jurisdictions. This makes sense when we consider the fact that police turn their evidence over to prosecutors. It is the prosecutors who then decide whether to proceed with charges, and it is the prosecutors who then have to use this evidence in court in any attempt to convict the identified person.

Working with police and with prosecutors on reforming lineup procedures in the United States has revealed some interesting differences between police and prosecutors. Because police and prosecutors have different roles and responsibilities, they tend to have different experiences that shape their views. For instance, while working on the U.S. Department of Justice eyewitness guidelines project, it was our experience that police were more likely to perceive a problem with eyewitness evidence than were prosecutors (Wells et al., 2000). Furthermore, police were more receptive to recommendations for improving lineup procedures than were prosecutors. I was surprised by this difference, as were the other psychologists in the working group. We had anticipated the reverse: that police would be the ones most resistant to change. After all, it is the police, not the prosecutors, who would have to change their policies and practices. As it turns out, however, police are in a much better position than prosecutors to observe frequent instances of eyewitness misidentification and other eyewitness errors. A major source of this difference in experience occurs at the level of the photographic lineup. Lineups, when properly constructed, have one suspect (who might or might not be the culprit) and the remaining lineup members are known-innocent persons (fillers). Police with broad experience in administering photo lineups have learned that witnesses frequently pick known-innocent lineup fillers and often do this with high confidence. Field research shows that eyewitnesses pick fillers 20–25% of the time in actual cases (Behrman & Davey, 2001; Wright & McDaid, 1996).

Prosecutors, on the other hand, are not the ones administering these lineups to eyewitnesses. What prosecutors see are the "successful" cases in which the eyewitness picked the suspect, rather than a filler, from the lineup. Compounding this problem is a tendency for lineup administrators to simply note that the eyewitness "could not make a positive identification of the suspect," rather than clearly noting the instances in which the eyewitness picked a filler from a lineup. When this kind of record is passed along to a prosecutor, the impression is that the witness did not even attempt an identification, rather

than that the witness picked a filler. In hindsight, it now makes good sense to me that police would have a better appreciation of the frequency of eyewitness error than would prosecutors.

In addition, it has been my experience that police have been more receptive to the idea of detailed procedural policies for lineups than have prosecutors. In part, this view reflects differences in perceptions of the reliability of eyewitnesses, but it also reflects other differences. Having a well-defined procedural policy protects the police investigators from criticism as long as they simply follow the procedural policy that has been adopted. For prosecutors, on the other hand, having a well-defined procedural policy for police represents one more area in which to grapple with troublesome discrepancies between what the police did and what the procedural policy says they should have done. Any difference between the procedural policy and the practice followed by police is potentially a huge problem for the prosecution. Accordingly, it has been my experience that many prosecutors prefer to have unclear, informal procedural policies for lineups so that, no matter how the lineup was conducted, it could never have violated the procedural policy. Of course, this view would be most likely to be held by prosecutors who have low opinions of the ability of police to follow procedural policies—and, therefore, rarely will a prosecutor explicitly articulate this reason for resisting the development of clearer lineup procedural policies. But the more general lesson here is that different actors in the legal system have different roles, different backgrounds, and different experiences. Do not expect that groups that work together (such as police and prosecutors) will always think alike.

Legal policymakers in the United States also include those who hold the title of attorney general. Each state has an attorney general, usually an elected office. Unfortunately, in only one state does the attorney general have significant authority over prosecutors and police within that state. It is not coincidental that this one state, New Jersey, also happens to be the first state to adopt research-based recommendations for how police should conduct lineups. In fact, New Jersey is still the only state to have adopted these reforms statewide. In other states, there is no single authority that can set policy for individual police departments within that state on matters such as lineup procedure. Accordingly, there are no good wide-scale mechanisms for reforming lineup policy in the United States, even at the level of the individual states, and local control (at the level of counties, cities, and towns) remains the rule on such matters.

One mechanism that is theoretically available to change legal policies on a large scale is at the level of state legislatures. With regard to reforming lineup procedures, for example, state legislatures could legally impose such reforms on police within their respective states. Unsuccessful attempts to impose lineup reform have been made in the states of Iowa, Missouri, and Illinois, among others. To be successful, this type of approach requires a sophisticated understanding of the political process that includes the basic reality that the recommended reforms have to fit the complex political agenda of the legisla-

ture. The kinds of legal reform that scientific psychologists tend to press generally do not fit into the legislative political arena in the United States.

In domains where there are thousands of individual policymakers operating largely independently of each other, it is important to not overlook key individuals who, although not in direct control of policy, have a "bully pulpit" by virtue of their position. The Attorney General of the United States, for instance, cannot dictate policies and procedures to individual states or local jurisdictions but does have the ear of law enforcement and prosecutors. In the area of lineup reform, former U.S. Attorney General Janet Reno was concerned about eyewitness identification problems based on the fact that the DNA exoneration cases were showing that mistaken identification was the cause of most of these convictions of innocent persons. This finding gave scientific psychology a chance to be heard, and the result was the development of the first set of national guidelines for the collection and preservation of eyewitness evidence (Technical Working Group for Eyewitness Evidence, 1999). Five psychological scientists were included in this effort, and the guide tended to follow, rather closely, the recommendations based on eyewitness identification research (see Wells et al., 2000). It is important to note that the guide has no legal force on how states and local jurisdictions collect eyewitness evidence. Nevertheless, this was clearly the most significant role that psychological science has played in trying to shape legal policies in the United States, and the fact that it was initiated and endorsed by the U.S. Attorney General has given it some force in encouraging states and local jurisdictions to reform their policies and procedures on eyewitness evidence.

THE PERCEPTION OF A SOCIAL AGENDA

Research psychologists in academia sometimes have to persuade others that their research is valuable, but that usually means persuading other psychologists or students. Selling psychology to other psychologists and students, however, is rather easy compared to selling psychology to people in the legal system. Brewer, Wilson, and Braithwaite (1995) have provided a useful description of steps to be taken in selling research in police organizations for purposes of collecting data in such settings. But what about selling research findings to actors in the legal system? Very few actors in the legal system have a conception of psychology as a science. Generally, their contact with psychologists is restricted to clinical forensic expert testimony. Indeed, to some in the legal system, the term *scientific psychology* is an oxymoron. To the extent that no conception of psychology as a science exists within the legal system, there is a great deal of room for those in the legal system to believe that psychological conclusions and ideas are heavily biased toward a social agenda.

In the United States there is a relatively wide perception that academics, especially those in the social sciences and humanities, are politically and socially motivated by a liberal agenda. Among other things, this means that aca-

demics are perceived to be opposed to the death penalty, opposed to strong penalties for drug use, and generally more concerned with the rights of the accused than they are with law and order. Along with this cluster of social and political attitudes is the perception that academics would prefer a much higher ratio of the number of guilty going free to the number of innocent being convicted than would most people. I know of no data that speak directly to this perception, but there is almost certainly some validity to it, especially if the attitudes of academics were contrasted with those of prosecutors or people in law enforcement. Clearly, this is an overgeneralization of academics, just as it is an overgeneralization of police and prosecutors to presume that they are more concerned about making sure they convict the guilty than they are about making sure that they do not convict the innocent. Nevertheless, this perception harms the credibility of experimental psychologists in the minds of some policymakers.

Experimental psychologists are no different from other people in the sense that their values creep into their language and the nature of the questions that they ask. For instance, eyewitness identification researchers are much more likely to frame their work in terms of a concern with lowering false identification rates rather than a concern with lowering the rate of misses (i.e., failures to identify the perpetrator). Indeed, none of the four major recommendations of the American Psychology–Law Society "White Paper" on lineups (Wells et al., 1998) was described as a mechanism to reduce miss rates or enhance hit rates. I, of course, recognize the apparent irony of that criticism, given that I was an author of the recommendations. It turns out that we could make the argument that implementing the recommendations would have positive effects on reducing misses and enhancing hit rates, but we simply did not make that case as effectively as we could have in the article. The case is easily made by pointing out how the identification of an innocent suspect leads to the cessation of a search for the actual perpetrator. Anything that stops the search for the actual perpetrator must, by definition, increase the rate of misses (i.e., reduce hit rates). Had the "White Paper" focused on the ways that poor lineup procedures help a guilty person go undetected (because the witness mistakenly identified someone else) as much as it focused on preventing mistaken identifications, it might have had a more productive impact on U.S. police and prosecutors. I would write the recommendations article differently today—but such is the nature of hindsight.

Success in obtaining policy change requires that experimental psychologists somehow manage to show policymakers that the effect of the changes is to reduce the chances of the innocent being convicted, without harming the chances that the guilty will be convicted—or, better yet, to reduce the chances that the innocent will be convicted and also increase the chances that the guilty will be convicted. Unfortunately, many experimental psychologists have not managed to show this kind of balance. For instance, many experimental psychologists are eager to provide expert testimony on eyewitness identification issues at trial, and this testimony is almost invariably testimony for the

defense. Granted, the reason that such testimony is for the defense resides primarily in the fact that it is almost always defense attorneys, not prosecuting attorneys, who have sought the assistance of eyewitness experts. Regardless of the reason, however, consistent alignment with the defense serves to brand the experimental psychologist as having a defense bias—a bias that is consistent with an already-existing stereotype of academics. If policies and practices are controlled by prosecutors or police—which they are, in the case of lineup procedures—those who testify consistently for the defense have little chance of working effectively with these policymakers. This is, of course, a page right out of social psychology. Recipients of persuasion attempts are quite sensitive to the question of whether the persuader understands the problems, needs, and interests of the recipient. Whether correct or not, police and prosecutors are going to assume that someone who works closely and consistently with the defense does not understand the problems, needs, and interests of prosecutors and police.

Because of my role in dealing with prosecutors, police, and judges on issues regarding lineup policy, several years ago I declared a moratorium on giving expert testimony for the defense in eyewitness cases. That is a rather extreme measure, and it is not one I am advocating for others. Nevertheless, I believe that it has helped immensely in my ability to work effectively with policymakers to effect lineup reforms in Massachusetts, New Jersey, Wisconsin, Minnesota, and North Carolina, among other states. Today, I get asked to talk to police, prosecutors, and judges across the United States on a regular basis regarding eyewitness identification issues and these venues permit me to educate them about the research and to appeal to them to make lineup reforms. I do not believe that this level of effectiveness regarding lineup policy change could have been achieved if I were routinely giving expert testimony for the defense.

Legal systems such as the U.S. legal system are, by design, adversarial systems: It is the prosecution team versus the defense team. Those who enter this system as outsiders, as experimental psychologists clearly are, tend to get cast on one side or the other; few can straddle both sides. Because academics are generally thought to have a socially liberal agenda, psychological scientists have to work particularly hard to overcome this preconception. There is probably more to this social agenda labeling than mere stereotyping of academics. Having a social agenda is perhaps the reason why many psychologists became involved in trying to change policy in the first place. There is nothing inherently wrong with being motivated by a social agenda. Many prosecutors probably became prosecutors because of their social agenda. Nevertheless, if psychological scientists want to be effective in changing policy, then pushing a social agenda is going to interfere with that effectiveness.

In addition to the concern that social scientists have a biased social agenda, the very fact that social science is outside of the legal system permits those in the legal system to dismiss social scientists as people who are out of touch with the "real world" of crime. This dismissal appears truer of police

perceptions of social scientists than it is of lawyers' perceptions—and in either case, it should not be taken personally. Police tend to see lawyers as out of touch with the real world of crime as well. The social scientist who rides around in a squad car for a week or month can overcome this perception a bit, but it is foolish for the social scientist to pretend to know what it is like to actually be a crime investigator. Social scientists who refuse to concede this point will be shut out of the interaction process. The best approach is to concede this point up front and use it constructively. You have research information to share with them, and they have real-world experiences to share with you; it is a two-way street and there is something to be learned by listening to their experiences and ideas.

DATA DRIVE SCIENCE BUT INDIVIDUAL CASES DRIVE POLICYMAKERS

An important event that occurred in the 1990s in the United States in the eyewitness identification area is instructive about one of the fundamental differences in thinking between the legal system and science. Before the 1990s, eyewitness identification research was almost completely ignored by legal policymakers except as it related to expert testimony and the issue of the admissibility of such testimony. In spite of numerous calls by psychologists for reform of eyewitness identification procedures, no serious efforts were undertaken by legal policymakers to reform eyewitness identification procedures. By the mid 1990s, however, the legal system was beginning to take notice of eyewitness identification research with an eye toward reform. The big event that caused this nascent attention to eyewitness identification research was the use of postconviction forensic DNA testing to uncover convictions of innocent persons. An analysis of the first 28 cases revealed that mistaken eyewitness identification was the primary evidence driving most of these wrongful convictions (Connors, Lundregan, Miller, & McEwan, 1996). Analyses of later DNA exoneration cases have continued to show that mistaken eyewitness identification is responsible for more of these convictions of innocent people than all other causes combined (Scheck et al., 2000; Wells et al., 1998).

From a scientific perspective, the DNA exoneration cases told us almost nothing. Although the DNA exoneration cases told eyewitness scientists that mistaken identifications do happen, eyewitness scientists already felt that this was a well-established reality, based on their extensive experiments. Importantly, the DNA cases tell us nothing about how often mistaken identifications occur, what variables are causing mistaken identifications, what psychological processes are involved, or how to prevent mistaken identifications. To eyewitness identification scientists, the DNA exoneration cases were simply case studies, not hard data, due to their uncontrolled nature. Hence, from a scientific point of view, the DNA exoneration cases were not of great significance.

To the legal system, on the other hand, these cases were powerful because they represented individual, real-world cases of miscarriages of justice. Whereas the psychological scientists were writing about numbers from their experiments and reporting pallid statistical analyses regarding research participants, the DNA exoneration cases began to put real faces on the victims of misidentification. Newspapers and television news programs began to report vivid stories of individuals who had served many years in prison, some of whom had been on death row awaiting execution, and the common theme was that mistaken identification had been responsible for the miscarriage of justice. It has been these individual cases and the publicity surrounding them, not the research experiments themselves, that have led the justice system in the United States to become interested in eyewitness identification research experiments and their findings.

There is a general lesson in this for psychological scientists who are interested in using their research findings to affect the legal system. Whereas scientists are impressed by hard data and controlled experiments, actors in the legal system are impressed by vivid individual cases in which the outcome went awry (e.g., conviction of an innocent person). Of course, psychologists should not be surprised by this fact because long ago social psychologists demonstrated that people are more likely to be persuaded by a single, vividly recounted story of an individual than they are by statistical data (e.g., Nisbett, Borgida, Crandall, & Reed, 1976). Nevertheless, it is easy for psychological scientists to underestimate the extent to which actors in the legal system seemingly require concrete, individual, real-world case examples in order to take seriously the science that is directed at the problem. The real-world individual case is important for policymakers not simply because it is more vivid than the experimental data; the real-world case demonstrates that the event in question can, in fact, happen in the real world and that it is not restricted to the laboratory or to the college sophomore.

There is another lesson in this as well. It appears as though the legal system entertains the idea of change or reform only in response to significant negative events that become a focus of attention. For example, the not-guilty verdict in the O. J. Simpson case was a major impetus for the development of standard protocols for the collection and preservation of DNA evidence, even though experts had long warned that such protocols were needed. Similarly, it was the bungling of the crime scene in the Jon Bonnet murder case in Boulder, Colorado, that facilitated the development of guidelines for U.S. police in the investigation of murder scenes. Sometimes an event has to be catastrophic to trigger reform. Consider the longstanding warnings from experts about the lack of security on airlines, and yet almost nothing was done to address airline security until the World Trade Center attacks of September 11, 2001. In each of these examples, experts had to wait until something negative happened before the system became receptive to their reform recommendations. It is possible that this reactive pattern for reform is characteristically American and that

legal reforms in other countries are more proactive rather than reactive. But I suspect that there is something more universal about this pattern because it seems so characteristically human.

One of the implications of the catastrophe–reform link is the existence of certain windows of opportunity for attempting to apply psychological science to legal reform. Outside of this window, the psychological science is often ignored, no matter how strong or sophisticated the efforts. No matter how solid and extensive the research was in 1985, for example, the time was not right for implementing reform in how lineups are conducted in the United States. As it turns out, the time for such reform was dependent on the development and acceptance of forensic DNA testing, which then uncovered dramatic instances of serious miscarriages of justice. Notice, however, that it is difficult, if not impossible, to predict when these critical negative events will occur and, hence, when the window of opportunity will present itself. The idea is for psychological science to be ready when windows of opportunity arise, which they inevitably do, albeit it can be years or decades down the road.

Even when there are windows of opportunity, lack of progress often reflects a shortage of time, energy, and other resources that academics have available to devote to policy endeavors. Other demands on time, such as teaching, conducting research, and publishing are themselves full-time endeavors, and policy change activities tend to be something that is done "on the side." Furthermore, academic psychology departments generally do not recognize applications of science to policy as something that their faculty ought to be doing.

MAKING THE RESEARCH POLICY RELEVANT

No matter how effective an individual might be as someone who can work with legal policymakers, attempts to apply psychological science to legal policy are fruitless if the research is not policy relevant. Generally, policy relevance is not an either/or matter but, rather, a matter of degree or type. This difference in degree or type of policy relevance was recognized early in eyewitness identification research via the distinction between estimator variables and system variables (Wells, 1978). *Estimator variables* are those that affect the accuracy of eyewitness identification, over which the legal system has no control. These would include variables such as lighting conditions during witnessing, the weapon-focus effect, whether the witness and culprit were of the same race, and so on. *System variables*, in contrast, are those that affect the accuracy of eyewitness identification over which the legal system does (or could) have control. These would include variables such as the instructions given to witnesses prior to their viewing a lineup, methods for choosing the fillers who will appear in the lineup, whether the lineup members are presented simultaneously or sequentially, and so on. Although both estimator and system variables could be policy relevant under some circumstances, it is system variables

that have the strongest and most direct implications for policy. Recognition of the "extra value" of system variables for purposes of making eyewitness identification research relevant to legal policy probably accounts for the relatively greater emphasis on system variables than on estimator variables over the last 20–25 years in eyewitness identification research.

The system-variable versus estimator-variable distinction is primarily a distinction between whether the information can be used by the legal system to improve outcomes, or whether the information is only useful to the legal system as a post-hoc estimator of a problem. We need not restrict the distinction to eyewitness identification research. For instance, we could conduct research showing that jurors are not capable of disregarding testimony that they have been instructed to disregard—and leave it at that. But such research would not have much "policy punch" because it fails to tell the legal system what alternative might work better. For example, the idea that all testimony could be videotaped and played to a jury, so that any inadmissible portions could be edited out before the jury hears it, is perhaps a radical idea and it might or might not be practical or desirable on other accounts. But research directed at this kind of potential solution to the ineffective "disregard" instructions from a judge is much more policy relevant than research that merely identifies the problem. In general, policymakers are not going to find useful a body of research that undermines their current policies and practices, unless there are clear demonstrations of better policies and practices to take their place. Policy-relevant research is research that examines one set of policies or practices versus another, not research that merely shows weaknesses of current policies and practices.

When there exists a body of research in scientific psychology that has clear legal policy implications, it can be useful to take the White Paper approach. This was the approach taken under the auspices of the American Psychology–Law Society by eyewitness identification researchers. The American Psychology–Law Society has a scientific review paper committee that is capable of appointing a subcommittee to review all that is known about some topic and reach conclusions that appear to have good scientific consensus. An open process is created that permits psychology and law researchers to provide input based on drafts of a manuscript. The resulting manuscript is peer reviewed and widely publicized, and any dissenting views can be printed alongside the resulting White Paper when it is published in the journal *Law and Human Behavior.* The so-called White Paper on lineups was published in 1998 (Wells et al., 1998), and it has had a remarkable effect in the United States. Among other things, drafts of this paper were read by U.S. Attorney General Janet Reno and by the entire working group that was charged with developing the U.S. Justice Department's Guide for Law Enforcement on eyewitness evidence. Furthermore, this article has become widely distributed among practicing lawyers, police, and judges through workshops and continuing education seminars across the United States. It could be argued that any article, regardless of whether it was endorsed as a White Paper by the Ameri-

can Psychology–Law Society, could have had this kind of impact. But I strongly suspect that the scientific consensus process and the endorsement by a scholarly body gave this article a special boost. A similar process might be done in other areas of scientific psychology and the law for which there is good consensus among scientists, such as some aspects of jury selection, jury instructions, or the detection of deception.

The White Paper approach can be an effective way of bridging scientific psychology findings and legal policy. Some "rules of thumb" about how such papers need to be written are useful. First, as noted earlier, there needs to be a consensus among the scientists that the findings are reliable and relevant to legal policy recommendations. This is not a format in which to present recommendations that are not fully endorsed among the scientists. Second, the recommendations need to have been scrutinized at the policy level to ensure that such matters as costs, benefits, and unintended consequences have been thoroughly examined and included. This domain is where the authors of the White Paper have to be able to think on levels that may be unfamiliar to psychological scientists. Third, the number of recommendations should generally be small, perhaps three to five recommendations, rather than expansive. This focus on a limited number of recommendations helps guarantee that the policy implications can be thoroughly examined for each, that recommendations with lower levels of consensus among scientists will not creep onto the list, and that each recommendation can be sufficiently explained and properly documented. There will inevitably be some psychological scientists who want to add recommendations, but it is better to have a limited set that are compelling than to risk counterargumentation on a subset of the recommendations. Later, additional recommendations can be made either in a follow-up White Paper or through other means. For instance, the White Paper on lineups had only four recommendations, each of which is compelling. However, this paper has opened the door to dispersing other recommendations for lineups via workshops, seminars, and consultations. A fourth rule of thumb is that the White Paper needs to be written in a manner that is easily read by nonpsychologists. Although it should include an extensive bibliography that permits readers to access original sources, psychological jargon and most inferential statistics must be jettisoned from the article. This does not mean that the article should be purged of science, but rather that the scientific foundations (methods) must be written for comprehension by the public.

SUMMARY

Although the long-term prospects for psychological science to have a lasting impact on legal policy are very promising, the effectiveness of psychological science at this point has tended to be rather limited. Most of this limited impact is probably due to the relative newness of the interface between psychological science and legal policy. As more research that is relevant to legal poli-

cies and practices emerges, the impact of psychological science on legal policies and practices undoubtedly will increase. Meaningful impact on the legal system, however, does not depend solely on the quality and relevance of the research. The impact of psychological science on the legal system also depends on the ability of psychological scientists to communicate clearly with legal policymakers and with an understanding that legal policymakers must consider a broad range of factors, not just the research. Furthermore, in order to be highly effective with policymakers, psychological scientists will have to overcome the perception that they have a socially liberal agenda or an agenda that strongly favors one or the other side of the adversarial legal system. When a scientific consensus develops regarding a legal policy matter, a White Paper approach can be an effective way to proceed. Finally, psychological scientists need to be patient about reform, because legal reform is a slow process and usually requires negative events or catastrophes of one sort or another to catalyze it.

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