Investigating nonviolent action by experimental testing

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Abstract

Strategic nonviolent action has developed enormously over the past century: there is a burgeoning body of research, widespread use in social movements, and regular training of activists. Even so, understanding of nonviolent action has been constrained by the methods used to investigate it, for example case studies and practical experience. The experimental method, as widely used in scientific research, has yet to be applied to the study of nonviolent action in systematic ways. In this article, two possible experiments with nonviolent action are presented to highlight some of the possibilities. Experiments with nonviolent action have the usual rationale of acquiring knowledge and two additional rationales: participant practical understanding and participant willingness to learn from experimentation. There are a number of obstacles to nonviolence experimentation, including lack of funding, ethical challenges, and opposition from various parties. Yet until experimental testing becomes routine, the full potential of nonviolent action will not be realized.

Introduction

Nonviolent action can be a remarkably effective means of challenging social injustice, for example in opposing the exploitation of workers, racial discrimination, and repressive regimes. This is an important topic for the emerging field of resistance studies, and much that has been learned from the study of nonviolent action is also likely to be of interest for those studying other forms of resistance. Yet the potential power of nonviolent action is only gradually being recognized outside activist circles. Researchers have documented case studies of nonviolent struggles (Ackerman and DuVall 2000; Roberts and Garton Ash 2009; Stephan

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2009; Zunes et al. 1999), examined the previously understudied history of nonviolent action (Bartkowski 2013), examined the factors involved in success and failure (Nepstad 2011; Schock 2005), and documented campaigns transitioning from armed to nonviolent methods (Dudouet 2014). Chenoweth and Stephan's (2011) path-breaking study of antiregime, secession and anti-occupation struggles over a century showed that nonviolent campaigns seeking regime change were far more likely to be successful than armed campaigns.

Nearly all the research into nonviolent action has been based on evaluations of naturally occurring events. Gandhi (1927) referred to his nonviolent campaigns as "experiments with truth," yet these were not experiments in the sense of formal testing, but rather subjective evaluations of actions and campaigns based on personal observations. Similarly, Chris Dixon (2014: 103–104), who has researched contemporary "transformative movements," recommends treating actions as experiments in the sense of analyzing successes and failures and applying lessons to future actions.

Drawing an analogy with natural science, it could be said that nearly all nonviolence research until now has been like observational studies in botany or astronomy — observing and classifying plants or celestial objects — without any laboratory experiments. The same can be said for most other areas of interest for resistance studies, such as everyday resistance and revolutions. Experimental science goes beyond observation to interact with nature. Modern science has adopted this experimental approach to such an extent — with associated technologies such as cyclotrons and gene splicers — that it sometimes seems isomorphic with science itself, though observational studies still play a role.

Within the social sciences, there are many possible methodologies, for example action research (McIntyre 2008), computer-based simulation, qualitative comparative analysis (Schneider and Wagemann 2012), and natural experiments (Dunning 2012). Genuinely experimental studies based on comparing different social interventions are less common. There is a long tradition of experimentation in psychology, though often limited by being carried out in labs. Many social policy initiatives, for example to reduce drug addiction, improve school performance, or reduce youth involvement in crime, are introduced with little or no systematic testing,

and sometimes are discovered by subsequent studies to be ineffective, or even to be counterproductive (Wilson 2013). In recent decades, there has been an increase in experimentation in political science, sociology and economics (Jackson and Cox 2013; McDermott 2013; Riach and Rich 2002), from which much can be learned.

The growing body of experimental research in sociology and political science includes numerous studies of factors that influence whether citizens vote (García Bedolla and Michelson 2012; Green and Gerber 2008). In these studies, usually aimed at learning how to increase voter turnout, members of an electorate are subject to various interventions and their subsequent voting behavior is monitored. Another group of studies looks at the responses of politicians to queries (Broockman 2013; Spada and de Sá Guimaráes 2013).

Large-scale experimentation in real-life scenarios involving social change, which might be threatening to groups with vested interests, is rare. For example, there have been studies of industrial democracy, comparing the productivity and commitment of workers in different conditions for carrying out their work (Emery and Thorsrud 1976; Melman 1958; Williams 1982). Because most such studies require cooperation from management to be carried out, in recent decades there have been few such investigations. There is a continuing interest within businesses on ways to improve morale, reduce turnover, and enhance productivity, but this is constrained by a need to maintain the usual hierarchies in which management retains most of its prerogatives.

This same pattern is manifest in experimentation for military purposes. There is a huge investment in improving weapons technology, from bullets and missiles to drones, as well as in associated fields such as communications (Martin 2001). Also within the military, there is considerable investment in psychological research into how soldiers can best be trained to be effective on the battlefield and how they can build their commitment to their roles (Radine 1977). However, little is publicly known about any military-funded research that might be used to destabilize the military's line of command, for example on techniques to encourage soldiers to revolt, refuse orders, or abandon their posts — research that would be useful to nonviolent opponents of repressive regimes.

Compared to military research and development, nonviolence research operates on a shoestring budget, with hardly any money for laboratories or paying participants, much less for large-scale testing of techniques and preparedness such as staging simulations. The military can run exercises costing hundreds of millions of dollars, involving thousands of soldiers and numerous weapons systems worth billions of dollars. For instance, the worldwide market for military simulations and virtual training is about \$10 billion³. Meanwhile, any nonviolence exercise today would probably depend on volunteers and rely on the simplest of equipment.

The huge discrepancy between resources available for military R&D and those available for nonviolence R&D is seldom noted when comparisons are made between armed and unarmed struggles. In this context, it is remarkable that nonviolent campaigners have been as successful as they have been. Nonviolent campaigners are analogous to an army entirely composed of volunteers, few with any training, most of whom are only occasional participants and rely on cast-off weapons. The implication is that with more resources and with more research, nonviolent struggles are likely to be even more effective than they currently are.

Given the current straitened circumstances for nonviolence research, our aim here is modest: to present some of the issues to be considered in future nonviolence experimentation. In the next section, we outline some of the methods used in studying and attempting to improve nonviolent methods. Then we give two examples of experiments that could be undertaken, after which we turn to some of the challenges involved in nonviolence experimentation. Our hope is to encourage thinking about the possibilities for nonviolence experimentation as well as the difficulties it will involve.

³ The Global Military Simulation and Virtual Training Market 2015–2025 (London: Strategic Defence Intelligence, 2015), as summarized at http://marketreportsstore.com/the-global-military-simulation-and-virtual-training-market-2015-2025/.

Improving the effectiveness of nonviolent action

The most common approach to the study of nonviolent action is the examination of case studies (Ackerman and DuVall 2000; Roberts and Garton Ash 2009; Stephan 2009; Zunes et al. 1999). Some campaigns, notably the Indian independence struggle under the leadership of Gandhi and the US civil rights movement under the leadership of Martin Luther King Jr., have received extensive analysis, providing insights for activists and serving as strong inspiration.

However, along with learning lessons from a systematic case study approach, it is useful to acknowledge the shortcomings of this approach. One of the problems is a strong tendency to examine successes and ignore failures. More fundamentally, the outcome of any particular campaign may depend on circumstances (resources available to campaigners, political openings, opposition unity) and thus paint a misleading picture of which factors were significant for a campaign's effectiveness. Also, the choice of which case studies to examine often depends on the availability of information and the simplicity of the narrative, often leaving highly complex engagements avoided or simplified (Sørensen 2017).

Chenoweth and Stephan (2011) are the standard-bearers for a more rigorous approach. They selected 323 campaigns fitting well-defined criteria and analyzed them statistically. Their most well-known findings are that, compared with armed campaigns, nonviolent anti-regime campaigns are far more likely to be successful and, when successful, more likely to lead to enduringly peaceful and democratic societies. Their statistical analysis, supplemented with case study analysis, also offers guidance concerning what makes nonviolent campaigns more effective, in particular greater levels of participation and defections from regime troops. However, statistical analysis of campaigns struggles to address the internal dynamics of campaigns when non-linear processes are involved, for example in the case of bandwagon effects, when people join a movement because it appears to be gaining popularity. Since conventional regression-based methods often strive to isolate and study specific variables, these methods often have difficulties accounting for nonlinearity and causal complexity. Furthermore, statistical analysis does little to provide guidance to activists about what to do in particular circumstances.

Chenoweth and Stephan's statistical approach has one thing in common with the case study approach: it relies on studying struggles that occur "naturally," namely without any involvement by researchers. By looking at a large number of campaigns, it is possible to isolate variables of interest for special analysis, for example to examine the influence of the co-presence of an armed struggle (Chenoweth and Schock 2015). However, this approach does not enable experimentation, for example to see whether modifying the tactics used would affect the outcome.

Simulations can be used to train people in a variety of skills. Flight simulators are now standard for training pilots, and military forces run all sorts of training exercises. In the nonviolence field, there is one significant simulation tool: the video game "A Force More Powerful," designed to teach strategic thinking in nonviolent struggles. Nonviolence training, which typically includes role-plays or sociodrama, takes place in a wide range of venues, sometimes through training centers such as the Highlander School⁴ or by groups such as CANVAS (Popovic et al., 2007a, b), as well in preparations for nonviolent actions. The most significant live large-scale nonviolence simulation was in 1965 at Grindstone Island, Canada, to test nonviolent defense against a military takeover. Many significant lessons were drawn from this exercise, but it has not been repeated (Olson and Christiansen 1966).

Although nonviolence training is widespread, it is not the same as experimentation. There is seldom any systematic comparison between two or more different ways of carrying out actions, different choices for when to initiate an action, or different methods to achieve the same goal. Nonviolence training and the video game "A Force More Powerful" seek to impart skills, not to assess the effectiveness of differing tactical or strategic choices. Nonviolence experimentation is needed to discover more about what makes nonviolent action effective. To illustrate what this might involve, we describe two possible experiments intended to measure the impact of humor and civil disobedience.

⁴ Higherlander Research and Education Center, http://highlandercenter.org/.

Types of experiments

In the natural sciences, there are various types of experiments. Some involve measurements, for example to determine the mass of the electron. This has no obvious analogue in social experimentation due to the lack of fundamental, reliably-reproduced quantitative features of social systems. Some experiments involve finding out whether something is possible, for example to synthesize a chemical or to produce a radioisotope. Many inventors employed this sort of experimentation, most famously Thomas Edison who tested hundreds of substances in a search for a suitable filament for an incandescent light.

Social experiments to test potentials could play a role in studying nonviolent action. For example, activists might seek to coordinate sitins in 25 different bank branches simultaneously without alerting bank officials in advance. It is possible in principle but actual tests would be needed to show whether it could be carried out. Another possibility is to see whether it is possible to make a whole group of police laugh together within five minutes. It might be necessary to try out numerous techniques to find one that succeeded. The shortcoming of this sort of social experimentation is that, unlike chemical synthesis or light filaments, social conditions are seldom sufficiently stable enough to enable reproducibility. It might be possible to coordinate 25 sit-ins on one occasion, but this offers no guarantee of success on a subsequent attempt.

A more promising option for social experimentation is to compare two options. In natural science, the most famous such experiment (whether or not it was actually carried out) involved Galileo dropping two stones of different masses off the Leaning Tower of Pisa. When they hit the ground at the same time, this refuted the prior belief that heavier objects fall more rapidly. In such experiments, it is usual that all conditions except one are kept constant. The two stones were dropped from the same height in the same weather conditions through the same distance, so the variable of interest was the mass of the stones. Of course, not every condition was equal. For example, air resistance is greater for a larger stone, but it has a negligible effect; if Galileo had dropped two feathers of different masses, the outcome would have been different.

In social experimentation, this approach of comparing two options has considerable promise. For example, two groups of voters can be exposed to differently-phrased messages and their subsequent votes recorded to determine the effect of the messages. But there is an additional complication that does not apply in physics or chemistry: human behavior. Atoms and molecules behave the same irrespective of experimental conditions, but human subjects may react to them.

Two practices can help to ensure more reliable results: randomization and blinding. In the late 1940s, major interventions were carried out to test the hypothesis that fluoride added to public water supplies would reduce tooth decay in children. Fluoride was added to water in several cities in the US and Canada, with other cities serving as controls. Dentists counted the number of cavities in the teeth of children in each city in subsequent years. The experiment, planned to run for a decade, was terminated after five years because the results showed a huge reduction in tooth decay in the fluoridated cities. However, the experiment was criticized later on methodological grounds (Sutton 1960). The cities to be fluoridated were not chosen randomly: there might have been systematic differences between the fluoridated and unfluoridated cities. The dentists, when counting children's cavities, knew where the children lived. Because determination of whether a cavity is present involves subjective judgment, the dentists might have unconsciously counted fewer in the children from fluoridated cities. To overcome this source of potential bias, randomization and blinding could have been used. Participating dentists could have been presented with children from both fluoridated and unfluoridated cities, in an order determined by a random process, and without the dentist knowing where each child lived (blinding).

With suitable experimental design, including the use of randomization and blinding, it is possible to isolate one factor and show its effect on the results. It is then possible to say (with a degree of confidence calculated statistically) that the changes in the single factor caused an effect, rather than simply being correlated with it. The role of randomization and blinding are illustrated in the following possible nonviolence experiments.

Experiment 1: Humor

Creative nonviolent actions are common in many different contexts, both in democracies and dictatorships. They can be more or less skilled, with some undertaken by professional artists and others by "ordinary" activists who play with various artistic expressions. The creativity takes many different forms, such as theatre, songs, and graffiti. One popular type of creative expression is humor (Sombatpoonsiri 2015; Sørensen 2008, 2016). Although many activists assume this to be more effective than other forms of communication, no research has systematically tested this perception. In order to evaluate the effect of humor, humorous nonviolent actions should be compared with actions that are also creative but not humorous.

To ensure a fair comparison, audience involvement needs to be held constant. An example is comparing humorous street theatre with non-humorous street theatre: in both cases, there is a clear distinction between the performers and the audience. An even more interesting experiment would involve the audience, something Sørensen (2016) has characterized as an important element of the humorous political stunt. Such stunts can take many different forms. If a group wanted to challenge the military's recruitment of young people, it could engage in what the peace movement calls counter-recruitment, aiming to disrupt or discourage the military's recruitment, for instance in schools. One creative form of action the peace movement has tried out in various places is to create a rebel clown army. Activists dress in a mixture of clown outfits (red noses, fluffy orange hair) and military uniforms, and in the role of curious, innocent, and bewildered clowns they interact in absurd ways with both soldiers and potential recruits during events where the military tries to recruit young people (Sørensen 2015)⁵. The clowns can for instance attempt to be recruited for war based on their experiences with water pistols and playing hide and seek. Although the activists are

⁵ A video from British CIRCA (Clandestine Insurgent Rebel Clown Army) gives an impression of what clowns involved in counter-recruitment can look like: Anonymous, Glasgow Section of Clandestine Insurgent Rebel Clown Army (youtube.com, not dated). http://www.youtube.com/watch?v=xqgcBblriBQ. Accessed 6 August 2017.

seriously concerned about recruitment, they use absurdity to expose and ridicule military hierarchies, double standards, and involvement in killing civilians.

To evaluate the effect of the humor, a comparison is needed with something equally attention grabbing, but not humorous, that disrupts the recruitment process. A possible comparison is a die-in involving pouring of artificial blood. The activists lie down on the ground, pretending to be the dead civilian victims of warfare. This is a popular type of action in the peace movement, having absolutely no humorous aspect.

In this comparison, the interesting question would be how the two types of actions influence the young people who are the target of military recruitment. In order to evaluate this, one would need a group of young people who could be questioned about their attitudes towards the military and joining the military both before and after they were exposed to the recruitment and counter-recruitment effort. In such a pre-post survey design, the difference between attitudes before and after could be regressed on the "treatment," namely the choice of humor or die-in. In many places, the military is often present at educational fairs where different employers, universities, and other educational institutions are present. This would provide an opportunity to give questionnaires to entire school classes before and after being exposed to the clowns or the die-in, supplemented by interviews with some of the students.

To introduce randomization, one option would be to choose two different military recruitment exercises, run at different times, and intervene with the clowns at one exercise and the die-in at the other, with the assignment of intervention made randomly. If recruitment exercises are of sufficient duration, there is another possibility: at one recruitment exercise the clowns could be followed by the die-in and at the other the die-in by the clowns, again with the assignment made randomly. To ensure a level of blinding, the questionnaires could be assessed by independent individuals, not involved in the action, who did not know what interventions had been made. Interviews could be recorded and likewise independently evaluated.

Experiment 2: Influencing police

The goal in this experiment is to compare two contrasting methods of influencing police. Protesters encounter police in many nonviolent actions, such as rallies, vigils, and blockades. Such actions may be legal or illegal, and protesters may or may not be engaged in civil disobedience. Although the primary goal of the action might be to influence politicians or a private company, police are frequently the only ones the protesters can easily engage, making them an important secondary target group. Protesters have used a variety of techniques when there is a police presence, including trying to get through police lines, shouting at police, talking politely to individual officers, offering flowers, and singing songs. Some protesters have tried out different methods and compared their experiences in different situations, but there seems to have been no systematic experimentation to determine what is more effective. Complications include that protesters may have different goals and that police may react quite differently depending on the circumstances, including their orders, possible dangers or expectations of dangers, media coverage and media presence, personalities of individual police, following the lead of other officers, and the issue that is the focus of the protest.

In an experiment, organizers could prepare two separate groups of protesters to use two contrasting techniques with police in different parts of a large demonstration. This could be a legal demonstration or an illegal one in which police have decided not to arrest protesters, or are holding off from making arrests. For the experimental comparison, one group of protesters might prepare to engage in earnest conversation about the issues in the protest while the other group of protesters prepares to sing songs while maintaining eye contact with particular officers. The effectiveness of the methods could be assessed by looking at how the police respond, by examining facial expressions, comments made, attitudes of nearby officers, and actions taken for or against protesters.

A modification of this experiment would be to use variations within a single technique. Several protesters could prepare to engage in discussions with different police, each protester trying out a somewhat different set of arguments and examples. Or the protesters could each prepare to sing a different song, to see whether melodies or styles made a difference. Alternatively, a single protester could try out several sets of

arguments or songs in sequence or with different officers.

To introduce randomization, one officer could be approached for discussion followed by a song and another officer approached with a song followed by discussion. Innumerable variations are possible. Also important is standardizing the protester approaches, which would require training. The impacts of interventions could be judged by independent observers, who could look at videos of the police without knowing what was being said or sung.

Yet another variation is to determine the impact of protester skills and training (Martin and Coy 2017). At a basic level, the impacts on police of a song sung by a beginner singer and an experienced one could be compared. For discussions, the effects of learning more examples and arguments, and of practicing interpreting emotional responses of police, could be studied.

Analysis of the experiments

When conducting experiments, criteria are needed for evaluating the success of the nonviolent actions. In conventional social science, the goal is increased knowledge, and for this goal there are many standard techniques and methodological approaches, including model construction, hypothesis testing, regression analysis, and qualitative comparative analysis. We take for granted that skilled researchers will be able to deploy such methods when designing and assessing nonviolence experiments. Rather than go into details about how to make statistical analysis robust and reliable, we will discuss two different, complementary goals of research: empowerment of the participating nonviolent activists and increasing activists' commitment to experimentation.

The additional factor in the sorts of nonviolence experiments we have discussed is that we consider nonviolent activists to be key players in themselves, in two ways. First, how they are affected by the experiments — in planning, preparing, training, doing, and evaluating the experiments — is important. Second, for research to be of any practical use, activists need to understand and be committed to an experimental approach to activism. Being involved in experiments, potentially as consultants or collaborators, is likely to increase their willingness to reflect on their methods and to adopt ones that promise greater effectiveness.

Philosopher Nicholas Maxwell (2004, 2007) distinguishes between the "philosophy of knowledge" and the "philosophy of wisdom." Maxwell's philosophy of knowledge is concerned with gaining an understanding about the world, and assumes knowledge has intrinsic value; this is the traditional rationale for research. The philosophy of wisdom, in contrast, is concerned with helping solve important problems facing humans, such as poverty and war. It might seem on the surface that there is quite a lot of research about poverty, war, and other social problems, but most of this research is written by scholars for other scholars and is not readily applicable to practical action. This has been noted in relation to studies of social movements, most of which are oriented to scholars and very little of which are addressed to or useful for activists (Croteau et al. 2005). These studies are written about social movements, not for social movements (Rootes 1990).

To assess research that aspires to Maxwell's philosophy of wisdom, different criteria are needed. In addition to evaluating the impact on others, we also think it is essential to include the impact of the experiments on the participants. For this type of research, it ought to be an additional goal that activists who participate can benefit in various ways, including gaining a greater understanding of nonviolent action, reflecting on goals and methods, and becoming more empowered to take action. For example, one possible outcome from experiments is that participants become more skilled at communicating. Along with looking at how experimental conditions affect communication with opponents and other audiences, attention can be given to how the conditions affect participants' skills, confidence, and self-understanding of communicative processes. It is possible that some experimental conditions might improve skills and thereby lay the basis for greater long-term effectiveness, even though the immediate impact on opponents is not great.

The introduction of a second set of experimental outcomes — effects on participants in addition to effects on target audiences — can make evaluating results more complex methodologically. Trying to examine two sets of outcomes means that determinations of causality may be compromised, so careful experimental design is required.

To see whether participation in experiments leads to greater activist reflection on the effectiveness of their methods and greater willingness

to undertake further experimentation, independent observers could interview activists, attend activist meetings, and monitor the level of experimentation. Levels of activist reflection on and commitment to experimentation could be assessed and compared between different sorts of experiments. Statistical analysis might not be needed if, for example, activists became enthusiastic about methods shown to be more effective. are keen to do more experimentation, and suggest new sorts of experiments or, on the other hand, they show a lack of interest in further experiments and express annoyance at the impositions to undertake them. One implication of assessing the impact of experimentation on commitment to experimentation itself might be that designing experiments to foster enthusiasm could be as important as having a design that enables an evaluation of the effects of actions on target audiences. It could be that fostering a commitment to experimentation, even without conventional outcomes in terms of statistically significant results, could initially be desirable so that more rigorous designs become possible later on.

For generating interest in experimentation, results for small experiments might well be obvious to everyone involved. If statistical tests are needed to show significance levels, this would be fine, but in order to have an effect on changing activist behavior, much more than statistical results are needed. All research faces the challenge of communicating findings in a convincing manner, and statistical results would need to be very striking in order to be convincing.

The important point here is that experimental results can be compared both by conventional social science methods and by looking at their impacts on participants in the experiments. This means thinking of participants not just as subjects used as tools to obtain knowledge, but as agents whose skills, understandings, motivations, and engagement are important outcomes of research exercises. Going one step further, participants can be involved in designing and evaluating experiments. It may be that one factor to take into account in choosing research methods is the likelihood that the results will be convincing to activists.

There is another complication in experimentation with nonviolent action: learning by opponents. Sophisticated rulers take note of the methods used by challengers and adapt their own methods accordingly (Dobson 2012). If activists learn from experiments that certain methods

are more effective and begin to use them more often and more skillfully, opponents may respond by developing countermeasures. It is possible to imagine police developing ways of dealing with humor or attempts to engage them in conversation. In an iterative strategic encounter, the moves by one player are countered by those of the other player and so on. Research can provide a short-term advantage but needs to be continually updated to take into account adaptive counter-tactics. How to address this issue methodologically is not obvious; it involves learning about the opponent's learning and tactical innovations.

Practicalities

For greater reliability, involving larger numbers of participants can overcome the risk that the results will be too influenced by single individuals — say a few clowns who are particularly skilled or a media spokesperson with above average rhetorical skills. In order to increase the reliability of the experiments, several groups could work with humor or civil disobedience independently of each other, preferably with the same number of control groups. To reduce the role of unconscious bias, participants should be assigned randomly to the experimental and control groups. The actions should be comparable in terms of the number of activists participating, time spent, effort expended to reach media, money spent on the campaign, etc.

Since the experiments should be as close as possible to reality and not artificially created by a research team, we think the most promising prospect will be to identify issues and locations where there are already organized groups and invite them to take part in the experiment. Ideally, the groups would be relatively well-established and have decision-making structures that can realistically make a commitment for the time the experiment will last. This might be a challenge, since such groups might already have a strategy and plans for the future. It is questionable whether any payment should be offered for the participants' time. Aside from this, there are several aspects of the experiments that might make the opportunity interesting for established groups.

Cooperation with a research project like this would offer an opportunity to involve more people in discussing plans and ideas, and might also be a way to attract more people into activism. The

participating students and researchers should also be familiar with many practices of campaigning that can be used as inspiration. If the researchers are cooperating with established groups that see the actions in the experiments as part of a larger campaign, the researchers need to be humble, accept that it is not "their" campaign, and leave decisionmaking to those likely to carry on after the experiment is over. For groups open to new input, participating in the experiment could potentially be a breath of fresh energy. However, frictions about leadership are bound to arise because the researchers will have to oversee the experiment, making sure the different actions remain comparable. One can imagine scenarios wherein a group in one location will have to carry out its actions in a smaller scale than what its potential is in order to remain comparable with the other locations. This could cause much frustration for the activists who feel they really have a momentum. Such scenarios should be discussed before the groups commit themselves to the experiment, but it is one thing to talk about it as a theoretical future possibility and another to be in the middle of it.

Another opportunity for the groups and their members will be to learn new ways of planning and evaluating and thinking more strategically about their nonviolent actions. One can also imagine that the research project will have resources to organize workshops that can provide new skills for the participants, for instance receiving advice from a professional actor for the clowns and from a journalist about media relations. As Martin (2015) has pointed out, nonviolent action has to be applied skillfully in order to have the desired effect. Just as army recruits need months of training to become competent soldiers, so do nonviolent activists need to practice relevant skills, for example being a convincing clown or resisting the urge to strike back if assaulted while undertaking civil disobedience.

Carrying out experiments in "real life" and not in a lab means that there will be many issues to take into consideration. For instance, there are likely to be participants who are not able or willing to do what they have heard about during trainings when it comes to real encounters with police and military, for instance. Another issue is that activists share information with each other. Those considered the control group might have heard about new ideas or practices from acquaintances who have

learned new skills through the experiment, so the control group could potentially try out some of these "on their own", making problematic the comparison between those who had gone through training in new skills and those who had not. However, this problem can be overcome if the experiments compare different types of interventions, such as in experiment 1, so there is no control group which is not trying out something new. A more troublesome issue occurs if police or the military know that protesters are studying interventions: the police might (or might not) resist being affected or even disguise their responses in order to hinder the protesters or, more likely, to make the job of the police easier. The point is that learning from interacting with police must take into account the implications of interactions potentially being a strategic encounter, in which police and protester actions affect each other. These problems with "real life" might put limitations on what is possible to do or how reliable the results are, but in themselves they should do not rule out obtaining valuable lessons about nonviolent actions from experiments.

Who would be willing to pay for this kind of research? Nonviolence research has seldom received significant funding from granting bodies, and experiments would probably cost much more than theory, interviews, or database construction and analysis. Even if funding were available, there would still be the challenge of getting acceptance from institutional review boards. Both funders and review boards could be concerned about research involving illegal actions.

Ethics

Experiments of any kind always raise ethical issues, since it is a question of interfering and manipulation rather than just observing naturally-occurring events. Just as researchers testing new medicine on patients or social workers trying out new interventions with their clients need to carefully consider ethical issues, so do those planning to undertake experiments with nonviolent action. That ethical issues might be a challenge should not rule out the experiments as an option to be explored further. The three principles of informed consent, confidentiality, and consequences can be a starting point for discussing ethical issues. All information identifying individuals participating in or being exposed

to the nonviolent action should be kept confidential, which is standard practice both with other methods and in other disciplines. Informed consent is relatively unproblematic when it comes to those participating in the nonviolent action. Participation in the experiments should of course be voluntary, and any course of action decided by the organizations themselves. Participation should be limited to adults, and they should receive full information about all the components of the experiments. In the sort of experiments outlined above, there will be little need to conceal information. A more problematic aspect when it comes to consent is that police, military, and audiences witnessing the nonviolent actions will not be informed in advance about what is going to happen and cannot give their consent. This leads to the question of consequences. Can this lack of consent be considered acceptable when one takes into consideration the potential benefits of the experiment?

First of all, it is important to note that no one is likely to be harmed by the experiments. A central aspect of nonviolent action is to limit the harm to others, at a minimum by avoiding physical violence (Martin 2015). However, it must be acknowledged that the experiments suggested here might cause stress to police, military personnel, and/or audiences. Young people attending an education fair might be distressed when exposed to the pouring of artificial blood, military recruiters could experience ridicule by a clown as a form of abuse, and the police might be annoyed when they are shouted at or have to ward off persistent protesters eager to offer flowers and have conversations. However, in psychological lab experiments, participants are regularly exposed to mild stress, and the stress caused to audiences by the experiments suggested here does not seem unreasonable, even if they have not consented to participate.

What about the potential psychological harm experienced by the police and military? Here one needs to take into consideration the kinds of stress that people in these professions regularly experience when they encounter death and trauma. Compared to these stressors, the experiments suggested here appear rather harmless. When discussing consequences, it is also necessary to consider the long term consequences. For institutional review boards, short term stress might be more justifiable if the experiments are likely to have important and long term positive consequences for many people. Although many nonviolent activists

object on principle to "the ends justify the means" arguments, it must be part of the ethical discussions that the goal of nonviolent action is to reduce different forms of violence and create a more just and peaceful world. With more effective nonviolent action, the presumption is that the likelihood of a more peaceful future increases.

Conclusion

Nonviolent action, as a method of struggle, has developed enormously over the past century. Although the methods have long been used on a spontaneous or ad hoc basis, the practice of a nonviolent strategy was pioneered by Gandhi, theorized by Gene Sharp, and subsequently refined by numerous researchers and practitioners. Despite these advances, nonviolent action has received little funding or official support, and has lacked a crucial means of improvement: experimental testing. Although we have focused on nonviolent action, the same is the case for all other forms of resistance of interest in the field of resistance studies.

In contrast, militaries around the world have devoted huge resources to research and development, including applying the experimental method to weapons development and testing, and many other arenas. A comparison with the sophistication of military R&D suggests that nonviolent action has much to gain by research dedicated to improving its methods and strategies. However, nonviolent researchers and practitioners have seldom explored the use of experiments, for a range of reasons including reliance on case studies, lack of theoretical agreement, and lack of resources.

Our aim in this paper is to point out the value of applying the experimental method for improving the effectiveness of nonviolent action, providing two examples and a survey of relevant issues, including practical, ethical, and financial concerns. The outcomes of nonviolence experiments can be evaluated using conventional social science tools, using randomization, blinding, and statistical analysis. In addition, there is an important aspect to nonviolence experimentation seldom addressed in social research: the effects these experiments have on participants. These effects are important if nonviolence experiments are seen as a way of increasing the capacity for skilled nonviolent action and not only as a way of acquiring knowledge about nonviolent action. Therefore,

studying the effect of experiments on participants' skills, understandings, emotions, and commitment is important.

Though there is much to be gained through experiments, the obstacles to large-scale testing are currently considerable, including limited funding, shortage of trained personnel, and lack of experience. There is no tradition of nonviolence experimentation and hence little skill base for undertaking it, and no source of ample funds. However, every new enterprise has to start from a low base, and so the first step is to put experimentation on the agenda so activists and researchers can start thinking about possibilities.

Militaries do not sponsor research comparing, for example, drone attacks or counter-insurgency wars with alternatives such as diplomacy, promoting social justice, or nonviolent action. One of the great advantages of nonviolent action is that it should not fear fair comparisons with alternative methods or built on alternative value systems for attaining the same goals. In this context, nonviolent experimentation is inherently threatening to both militaries and most governments, because it would highlight possibilities for citizen empowerment, with the strongest endorsement, that of rigorous testing. This is yet another reason to put experimentation on the agenda for nonviolence research.

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