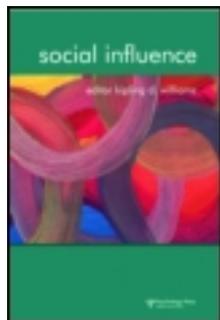


This article was downloaded by: [piero bocchiaro]

On: 13 January 2012, At: 08:32

Publisher: Psychology Press

Informa Ltd Registered in England and Wales Registered Number: 1072954 Registered office: Mortimer House, 37-41 Mortimer Street, London W1T 3JH, UK



## Social Influence

Publication details, including instructions for authors and subscription information:

<http://www.tandfonline.com/loi/psif20>

### To defy or not to defy: An experimental study of the dynamics of disobedience and whistle-blowing

Piero Bocchiaro <sup>a</sup>, Philip G. Zimbardo <sup>b</sup> & Paul A. M. Van Lange <sup>c</sup>

<sup>a</sup> Department of Psychology, University of Palermo, Palermo, Italy

<sup>b</sup> Department of Psychology, Stanford University, Stanford, CA, USA

<sup>c</sup> Department of Social and Organizational Psychology, VU University, Amsterdam, The Netherlands

Available online: 13 Jan 2012

To cite this article: Piero Bocchiaro, Philip G. Zimbardo & Paul A. M. Van Lange (2012): To defy or not to defy: An experimental study of the dynamics of disobedience and whistle-blowing, *Social Influence*, DOI:10.1080/15534510.2011.648421

To link to this article: <http://dx.doi.org/10.1080/15534510.2011.648421>



PLEASE SCROLL DOWN FOR ARTICLE

Full terms and conditions of use: <http://www.tandfonline.com/page/terms-and-conditions>

This article may be used for research, teaching, and private study purposes. Any substantial or systematic reproduction, redistribution, reselling, loan, sub-licensing, systematic supply, or distribution in any form to anyone is expressly forbidden.

The publisher does not give any warranty express or implied or make any representation that the contents will be complete or accurate or up to date. The accuracy of any instructions, formulae, and drug doses should be independently verified with primary sources. The publisher shall not be liable for any loss, actions, claims, proceedings, demand, or costs or damages whatsoever or howsoever caused

arising directly or indirectly in connection with or arising out of the use of this material.

## To defy or not to defy: An experimental study of the dynamics of disobedience and whistle-blowing

Piero Bocchiaro<sup>1</sup>, Philip G. Zimbardo<sup>2</sup>, and Paul A. M. Van Lange<sup>3</sup>

<sup>1</sup>Department of Psychology, University of Palermo, Palermo, Italy

<sup>2</sup>Department of Psychology, Stanford University, Stanford, CA, USA

<sup>3</sup>Department of Social and Organizational Psychology, VU University, Amsterdam, The Netherlands

This study introduces a new paradigm for investigating the dynamic processes of disobedience between individuals and unjust authority. Our experimental setting allowed participants ( $n = 149$ ) to deal with an unethical request by the experimenter with options of (dis)obeying or “blowing the whistle”. Results revealed that the majority (77%) complied while the minority was split between those refusing (14%) and those reporting the misconduct to higher authorities (9%). No significant differences were found in personal characteristics and dispositional variables distinguishing between obedient, disobedient, and whistleblower participants. An independent sample ( $n = 138$ ), when asked to predict their behavior, gave exactly the opposite reaction to our experimental participants: Only 4% believed they would obey that authority.

**Keywords:** Whistle-blowing; Defiance; Obedience; Disobedience; Unjust authority.

People have strong inclinations to obey legitimate authority, irrespective of their beliefs, feelings, or intentions: This is the enduring legacy from Milgram’s pioneering experiments on obedience (Milgram, 1963, 1965, 1974). In his first study 65% of participants inflicted apparently lethal shocks to a mild-mannered man under the orders of an authority figure,

---

Address correspondence to: Piero Bocchiaro, Department of Psychology, University of Palermo, Palermo, Italy. E-mail: bocchiaro@gmail.com

This research was supported by a grant from The Stanford Center for Compassion and Altruism Research and Education (cCARE), James Doty, Director. We wish to thank Tom Blass and Wim Meeus for their helpful comments on an earlier version of this article. We also note the approval of this research by the VU Human Research Ethics Committee and their cooperation in programming some of its critical features.

a percentage that has been found to be stable across time and place (see Blass, 1999, 2004).

However, the ethical issues raised by such research (Baumrind, 1964; Kaufmann, 1967; Kimmel, 2007; Mixon, 1972) have led institutional review boards (IRBs) to progressively discourage scholars from extending Milgram's work and, more generally, from exploring the complex interactions of individuals and authority within experimental behavioral settings.

Although we have gained some important knowledge of the mechanisms of obedience, nevertheless we are left with little understanding about the nature of disobedience to unjust authority—an act that is a precondition for social progress. Equally important, IRBs rules, although fair and designed to protect the safety of human participants, have indirectly contributed to delaying research on the psychosocial dynamics involved in reporting wrongdoing to higher authorities (a phenomenon known as “whistle-blowing”), which is another behavioral option in the presence of unjust authority figures.

Who are the people that disobey or blow the whistle? Why do they choose that challenging moral path? What are they thinking and feeling at that decisive moment? Do they have personal characteristics that differentiate them from those who obey? At this time we do not have any evidence-based answers to these vital questions. Clearly the essential first step for stimulating research on these important topics must involve the creation of a paradigm that gives participants the chance to obey, disobey, or blow the whistle against authorities who are encouraging immoral behaviors. Such a paradigm must also be personally engaging and have mundane realism, while protecting the psychological and emotional well-being of the participants.

We have attempted to do precisely that in the present study. Our research, then, uses the generic Milgram paradigm as a starting point—authority requesting immoral actions of participants—but goes well beyond it in providing participants the option to take personal action against an evil system (in this case, an unethical experiment). Because we have substituted a form of softer, psychological aggression than the physical violence paradigm in Milgram's research, we expect that a higher percentage of participants will obey the experimenter than in his baseline condition. In line with other scholars (Meeus & Raaijmakers, 1986, 1995), we feel that in modern societies such verbal hostility is more typical than is physical aggression in the relationships between individuals and unjust authorities. With respect to defiant behaviors, we predict a relatively lower level of whistle-blowing than disobedience because it involves a potential direct confrontation of the defiant person and the authority. Moreover, rather than just electing to exit from the unpleasant situation by refusing to do what the authority demands,

the whistleblower, by challenging him or her directly to higher authorities, must be prepared for future involvement with both the authority figure and the system governing such behavior.

Our paradigm removes the severe limitations of studies based on interview or archival data collected long after the defiant act took place. In fact such retrospective data can prove to be of little value for researchers when the passage of time can turn them into ad hoc explanations (Nisbett & Wilson, 1977). The alternative of using scenario studies is not an acceptable solution either: They may be appropriate when respondents are asked to predict their own behavior under familiar situations, but not useful with complex and unfamiliar circumstances whose core features are hard to grasp by simply imagining them.

In order to explore the extent to which respondents' estimated reactions differ from actually experienced ones, we conducted a separate study in which 138 students were asked to predict their behavior and that of others when facing the setting designed for our laboratory investigation. Given people's inclination to see themselves as better than others (e.g., Alicke, 1985; Alicke, Dunning, & Krueger, 2005), and considering their difficulty of taking into account the subtle situational forces that can shape human behavior (e.g., Ross & Nisbett, 1991), we expect, in both cases, a substantial overestimation of the tendency to disobey and blow the whistle. Such a result would replicate Milgram's findings of a wide gap between people's predictions of their own and others' degree of (dis)obedience when contrasted with the actual behavioral outcomes in his experiments (Milgram, 1974).

Our interest in understanding the personal as well as the social nature of such variations in (dis)obedience has led us to collect a variety of personality and values information from our participants. We have assessed six basic personality traits using the HEXACO-PI-R (Ashton & Lee, 2007) as well as individual differences in social value orientation using a nine-item Decomposed Games measure (Van Lange, Otten, De Bruin, & Joireman, 1997) to determine their predictive utility in this context. It is difficult in this case to formulate a firm hypothesis. On the one hand one might expect obedient participants to be considerably different from defiants, these latter being, for example, more honest and prosocial. On the other hand it is impossible not to consider that certain behavioral contexts, like ours, because of their unusual and somewhat extreme nature, are likely to reduce the power of individual factors in predicting behavior (see Blass, 1991). From this point of view one might anticipate at best weak effects for various personality variables related to the participants' decisions to obey, disobey, and openly defy an authority demanding them to act in unethical ways.

## METHOD

### Participants

A final sample of 149 undergraduate students (96 women, 53 men, mean age = 20.8,  $SD = 2.65$ ) took part in this research in exchange for either €7 or course credit.<sup>1</sup> Participants were recruited by flyers posted in the campus cafeteria of the VU University at Amsterdam.

### Procedure

*Pilot tests.* Before starting the main study we carried out a series of eight pilot tests to ensure that our procedure was credible and morally acceptable to the participants. Post-experimental interviews revealed that participants had believed the cover story (“I thought it was altogether real... it was a big surprise that it was not true”) and felt that the entire study was appropriate from an ethical standpoint (“Cool and interesting research, good for science”). A total of 92 undergraduate students from the VU University of Amsterdam participated in this preliminary research stage, which also served to standardize the experimenter-authority behavior throughout the experimental period.

We received final approval from the IRB of the VU University after these pilot tests were completed. We proceeded by preliminarily informing participants about what their task was, about the potential benefits/risks of participation, and about their right to withdraw at any time with no penalty. Finally we assured participants of the confidentiality of the information collected. At the end of the study participants were debriefed and asked to sign a second consent form, this time fully informed.

*Main study.* In the laboratory a male Dutch experimenter greeted each participant. Formally dressed and with a stern demeanor, the experimenter proceeded with a (seemingly unjustified) request for each participant to provide a few names of fellow students, and then presented the cover story:

Along with an Italian colleague I am investigating the effects of sensory deprivation on brain function. We recently conducted an experiment on six participants who spent some time completely isolated, in Rome, unable to see or hear anything. What happened was traumatic: All of those people panicked, their cognitive abilities were impaired temporarily, some experienced visual and auditory hallucinations. Two participants even asked us to stop because of their strong symptoms, but we didn't because such a decision would have implied collecting invalid data. In post-experimental interviews the majority said it was a frightening experience.

Now, our aim is to replicate this study at the VU University on a sample of college students. There are currently no data on young people, but some

---

<sup>1</sup>A total of 11 participants were removed from the initial sample of 160 because of their suspiciousness about the nature of the study.

scientists think that their brain is more sensitive to the negative effects of isolation. It is difficult to predict what will happen, and I am worried about that . . . but I want to go ahead with this experiment.

A University Research Committee is evaluating whether to approve our study. Of course, they have high standards and know about the great suffering caused by extended sensory deprivation, so . . . I don't know . . . we will see what their decision is. In the meantime, the Committee is collecting information . . . it seems they do not have clear ideas about what to do. That's why they are also interested in the feedback from students like you who happen to know details regarding my experiment. You will find Research Committee forms in the next room.

Having said all that, what I need is for you to write a statement to convince the students you indicated earlier to participate in my sensory deprivation study. We will send them your testimonial through email. And if this is OK, I will contact you in the future for other promotions . . . so this means money for you.

As you can see, this is a preliminary stage of the experiment, but it is also important to show members of Research Committee that people do not judge negatively sensory deprivation.<sup>2</sup> I'll be back [the experimenter left the room and stayed out for 3 minutes in order to provide a time for reflection on the action-based decisions about to be made].

Let's move into the next room, there is a computer for you to perform the task. Of course, you must be enthusiastic in writing the statement. To this aim, it is requested that you use at least two adjectives among "exciting", "incredible", "great", and "superb". Also, you cannot mention the negative effects of sensory deprivation [instructions were displayed on the computer screen as well]. Begin your task; I'll be back [the experimenter stayed out of the room for a full 7 minutes].

In this second room participants found a mailbox and the Research Committee forms. If a participant believed that the research on sensory deprivation violated ethical norms, he/she could anonymously challenge it by putting a form in the mailbox.<sup>3</sup> After the 7-minute interval the

<sup>2</sup>Even though the heart of the study was supposedly the sensory deprivation experience itself, logically the message-writing request would also need ethical approval. However, this is part of the ambiguity that we created to see if the participants would question anything in this dubious introduction.

<sup>3</sup>Here is what the Research Committee form looked like: The Free University aims to promote excellent and ethical research. All research should strive to minimize the risk to participants, so that they will not be exposed to any more risk that they would encounter in their usual lifestyle. More in detail:

- Participants should be protected from psychological harm (anxiety, stress, embarrassment, humiliation);
- Researchers should inform participants if they see signs of psychological problem that these latter are unaware of.

If you think that the research on sensory deprivation violates the above-mentioned basic ethical norms please report this to the Human Ethics Committee by checking the box below and putting this document in the mailbox. Thanks for your valuable cooperation.

experimenter returned and invited the participant to follow him back into the first room; then he/she was administered two personality inventories, probed for suspicion, and debriefed fully. The entire session lasted approximately 40 minutes.

## Measures

We were mainly interested in participants' reactions to the experimenter's request to write the statement in support of the sensory deprivation study. Those who complied were considered "obedient"; those who refused were considered "disobedient"; those who reported the experimenter's questionable conduct to the Research Committee were considered "whistleblowers". They were of two kinds: *Open whistleblowers* if they had refused to comply with the previous request to write the statement, and *Anonymous whistleblowers* if they had originally complied with it.

Participants completed the Dutch version of the 60-item HEXACO-PI-R (De Vries, Ashton, & Lee, 2009), an instrument that measures the six major dimensions of personality (Honesty-Humility, Emotionality, Extraversion, Agreeableness, Conscientiousness, Openness to Experience). Each domain scale is composed of 10 items. In the self-report form used in our study, respondents were asked to indicate how much they agree with each statement—from 1 (*strongly disagree*) to 5 (*strongly agree*). The HEXACO-PI-R, whose psychometric properties have been well established (Ashton & Lee, 2007; De Vries et al., 2009; Hopwood & Donnellan, 2010), is a valuable alternative to the Big Five or five-factor model as it predicts personality phenomena not explained within this latter (i.e., the relations of personality factors with theoretical biologists' constructs of reciprocal and kin altruism and the patterns of sex differences in personality traits) (Ashton & Lee, 2007). Also, the HEXACO model accommodates several personality variables that are poorly assimilated within the five-factor model (Ashton & Lee, 2007).

Because our paradigm created a dilemma in which self-interest clashed with collective interest, we chose to measure one the most studied individual differences relevant to this dimension, namely Social Value Orientation (SVO). SVO measures relatively stable preferences for particular patterns of outcomes for oneself and others (Messick & McClintock, 1968) by using a nine-item Decomposed Games measure validated in Dutch by Van Lange and colleagues (Van Lange et al., 1997). Prosocial orientation is revealed by tendencies toward enhancing joint outcomes and equality in outcomes; individualistic orientation is revealed by tendencies toward enhancing own outcomes with very little or no regard for other's outcomes; competitive orientation is revealed by tendencies toward enhancing relative advantage over other's outcomes. SVO measures are found to have good test-retest

reliability (Van Lange & Semin Goossens, 1998) and predictive validity of behavior in various social situations (see McClintock & Allison, 1989). This measure allowed us to classify participants as “prosocial”, “individualistic”, or “competitive” if they made at least six out of nine choices consistent with a prosocial, individualistic, or competitive decision rule. Participants failing to meet this criterion were discarded from data analysis.

### Debriefing

Debriefing was conducted with great care and sensitivity. Each participant was informed of the reasons for our use of deception, then we disclosed the true nature of the study (purpose, variables, hypotheses). The experimenter was trained to use simple language and to proceed slowly, from the general to the specific, in order for everyone to be able to process this new information in an appropriate manner. However, because “debriefing a subject is not simply a matter of exposing him to the truth” (Aronson & Carlsmith, 1968, p. 31), we made sure that participants did not feel uncomfortable about their performance (of being obedient) and about the fact they had been deceived. We also took all reasonable steps to minimize the likelihood of loss of trust in future research in which they might be engaged, and/or toward their academic institution (participants were carefully informed about the use of deception in scientific research, the circumstances in which it is permissible/necessary, and the role of IRBs in general and in the present study). After having underlined the importance of our obtaining potential future participants’ natural reactions, current participants were requested to refrain from discussing the study with colleagues and friends. Then they were asked to provide a written informed consent for use of their data. Finally participants were given a written debriefing form that outlined all the details that had been provided orally, as well as an email address to contact in case they wanted to complain or ask further questions about the study.

## RESULTS

### Comparison group estimations

Before going into details of our main results, it is worth pointing out how people predict their own behavior and that of others in the experimental scenario we created. When comparison students are asked to imagine being in this research, how likely are they to predict (dis)obeying or whistle-blowing? The separate sample of 138 students from the VU University of Amsterdam was provided with a detailed description of our experimental setting, then asked, “What would you do?” and “What the average student at your university would do?” Of all the respondents,

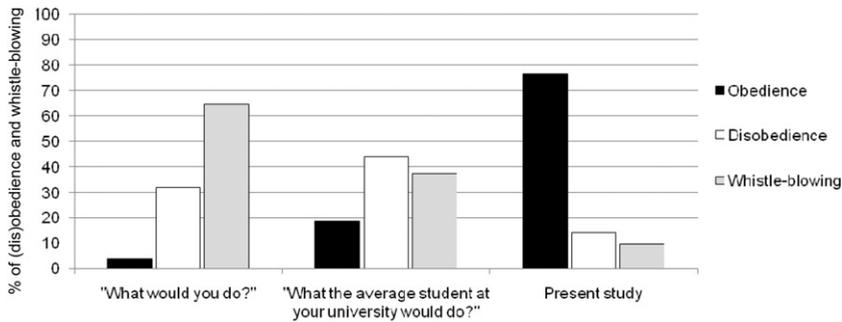


Figure 1. Differences between predicted and actual behavior.

only 3.6% indicated they would obey the experimenter. By contrast, most believed they would be either disobedient, 31.9%, or whistleblowers, 64.5%. When asked to predict the behavior of other typical students at their university, only 18.8% of respondents thought that an average student at VU University would obey, while they believed most other students would respond as they imagined they would: 43.9% would disobey and 37.3% would blow the whistle (see Figure 1). These figures create the backdrop for appreciating the results obtained when student-participants were immersed in the social situation of this research paradigm.

### Quantitative main findings

Results from our laboratory revealed a very different picture: Of the 149 participants, 76.5% obeyed the experimenter ( $n=114$ ), 14.1% disobeyed ( $n=21$ ), and 9.4% blew the whistle ( $n=14$ ) (see Figure 1). Among whistleblowers, 6.0% ( $n=9$ ) had written a message (*Anonymous whistleblowers*) and 3.4% ( $n=5$ ) had refused to do so (*Open whistleblowers*). These data, however, were combined into a single sample because of the small number of participants in the two subgroups (when the analyses were repeated with the two subgroups, patterns and significance levels did not change).

Based on these initial data we sought to determine whether there were any factors that could differentiate these three sub-samples. No significant differences were found in any of the groups in relation to gender,  $\chi^2(2, 149)=3.71$ ,  $p=.16$ , religious affiliation (Christian/Islamic), Fisher's exact test,  $p=.24$ , or religious involvement (defined in terms of church attendance), Fisher's exact test,  $p=.33$ . A significant difference was instead observed with regard to faith (defined as a confident belief in a transcendent reality),  $\chi^2(2, 149)=6.74$ ,  $p=.03$ . However, although this chi-square test

TABLE 1  
Groups' mean scores and standard deviations on the six HEXACO-PI-R dimensions

Personality dimensions	Obedient participants		Disobedient participants		Whistleblowers		<i>F</i> (2, 146)	<i>p</i>
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>		
Honesty-Humility	3.35	.59	3.44	.58	3.37	.61	.17	.84
Emotionality	3.08	.64	2.94	.70	2.76	.53	1.80	.17
Extraversion	3.65	.50	3.49	.52	3.74	.37	1.32	.27
Agreeableness	3.01	.57	2.99	.83	3.09	.55	.11	.89
Conscientiousness	3.40	.60	3.62	.64	3.54	.68	1.35	.26
Openness to Experience	3.31	.64	3.32	.78	3.61	.63	1.22	.30

was significant, none of the standardized residuals associated with the cells reached significance (all values remained lower than 1.96). Hence it is more appropriate to talk of a trend suggesting that whistleblowers have more faith than did obedient and disobedient participants.

A one-way ANOVA was performed to test for individual differences in personality among the three groups. The results reported in Table 1 show no statistically significant differences in any of the six personality factors measured by the HEXACO-PI-R.

Similarly, we wanted to determine whether groups differed in terms of SVO. A total of 28 respondents (18.8%) were removed from this analysis because they failed to meet the criterion of six value-consistent choices. Also, because only three participants (2.0%) turned out to be "competitive", we decided to exclude them from the analysis as well. Chi-square test showed that "prosocial" and "individualistic" participants were not unequally distributed among the three groups,  $\chi^2(2, 118) = 2.25, p = .32$ .

## DISCUSSION

Several conclusions, as well as conceptual and pragmatic issues, emerge from this experimental investigation of disobedience to, and defiance of, unjust authority. In the last two decades much significant theoretical work (Miceli & Near, 1992; Miceli, Near, & Dworkin, 2008) and some field experimental studies (Everton, 1996; Miceli, Dozier, & Near, 1991) have focused on the topic of whistle-blowing. However, to the best of our knowledge, the present study is the first to examine whistle-blowing within an experimental paradigm in a controlled laboratory setting.

All participants believed the cover story and were surprised, at debriefing, to discover the true nature of the research. Additional support for the

validity of this unique paradigm comes from our data, which are consistent with those reported in other literature as regards similarly high levels of obedience.

### The limited value of imagined scenario research

Worth mention are several aspects of the departure of students' predicted behaviors outside the test setting from those obtained within its situational power. When students predicted how they themselves would behave in this setting, many were confident that they would do the right thing in disobeying and even challenging unjust authority—even more so than their imagined average fellow student. What accounts for this attributional fallacy? And what does it say about the value of scenario studies that have come to replace behavioral research on similar conceptual phenomena? Our answer to the second question is to see such alternative research as generating spurious conclusions of limited generalizability. The answer to the first question is a bit more complex because it forces us to focus both inward on the mental gymnastics of ordinary people wanting to appear “good” and outward on the pervasive power of situational forces that bind behavior to a range of seemingly innocuous features in any given behavioral context.

### On being special and invulnerable

Most of us believe we are special, above average, guided by moral principles with freedom to act rationally (e.g., Alicke et al., 2005), personally immune to the influence of powerful situational forces (e.g., Ross & Nisbett, 1991; Zimbardo, 2007). This fundamental egocentric focus seems to generate a “cortical cataract” that blurs the socio-centric focus necessary for recognizing our embeddedness in ever-changing social contexts. As a consequence of the illusion of invulnerability, it is reasonable to hypothesize that we humans tend to reject (as not self-relevant) the information that in any given setting most people do what is expected by the authority in charge. Paradoxically, by not being able to imagine both the power of influence professionals and our human tendency “to go along to get along”, we make ourselves even more vulnerable to being seduced by perpetrators of evil, and confidence men as “easy marks”.

The data from our scenario study suggest that virtually all respondents (96.4%) were victims of this better-than-average phenomenon given that they believed they would either disobey (31.9%) or blow the whistle (64.5%) in the experimental setting we created. Once the prediction was made, respondents tended to project onto others their own beliefs or, in other words, to perceive a false consensus—namely “to see their own behavioral choices and judgments as relatively common and appropriate to existing

circumstances while viewing alternative responses as uncommon, deviant or inappropriate” (Ross, Greene, & House, 1977, p. 280).

In point of fact, as also demonstrated by our laboratory results, the behavioral acts of both disobedience and whistle-blowing are psychologically, socially, and economically demanding for people, notably for whistleblowers: Miethe (1999) noted that whistle-blowing is often followed by bankruptcy, depression, and alcoholism, whereas Alford (2001) found that at least half of the whistleblowers lose their jobs. Moreover, there is no guarantee that the unlawful practices will be corrected. As for the benefits, there is the personal knowledge that they did the right thing by standing up and speaking out when most others remained passive in the face of corruption and fraud. In addition they may come to be beacons of moral courage because their challenge to unjust authority may lead others to aspire to similarly brave deeds when opportunity arises.

### The predictive failure of personality traits

None of the standard assessments of individual differences in personality had any predictive utility in distinguishing among obedience, disobedience, and whistle-blowing. A possible explanation for this result could reside in the strong situational forces operating on the observed behavior: Research has amply demonstrated that individuals behave in completely different ways than they do normally when they find themselves in certain circumstances that are unfamiliar and somewhat extreme (see Latané & Darley, 1970; Ross & Nisbett, 1991). Under this view it is then reasonable to argue that our high-impactful situation could have trivialized the individual differences between obedient and defiant participants.

However, the limited number of whistleblowers and disobedient participants plus the characteristics of the specific measures we used impose caution in drawing firm conclusions on the basis of this lack of difference in personality traits. In fact a larger sample size (i.e.,  $n > 250$ ) and more refined instruments (in terms of a more direct theoretical link between the personality trait and the behavior) would have enabled us to more sensitively detect differences among whistleblowers, obedient, and disobedient participants—if in fact they do exist. In this sense, only to cite one of the most central references on this subject, results of Kelman and Hamilton’s (1989) survey of Americans’ reactions to the trial of Lieutenant Calley for the massacre at My Lai, Vietnam, revealed that people’s responses to destructive orders are mediated by their orientation toward authority.

Those rule-oriented citizens (who see it as their task to follow the rules and to respect authorities’ demands) and role-oriented citizens (who actively support and faithfully obey the government) tend to deny individual

responsibility and to obey authoritative orders. By contrast, value-oriented citizens (who see it as their obligation to take an active part in formulating, evaluating, and questioning national policies) tend to assert individual responsibility for crimes of obedience and to disobey commands that violate the individual's own principles.

### The issue of responsibility

People are responsible for their actions, even when there are outside influences on them. As noted by Sabini and Silver (1980, p. 336), "Eichmann and Milgram's participants lost the right to be unconcerned with the moral implications of their actions just when the German state and the experimenter's demands became immoral. Milgram's obedient participants and Hitler's murderers ought to have seen that these institutions were no longer legitimate, could no longer claim their loyalty, and could no longer settle for them the question of moral responsibility".

Obedient participants in our study explicitly justified their immoral behavior by allocating personal responsibility to external forces ("It was expected of me, that's why I continued", "I cooperated because the experimenter asked me to", "That was the task, so I executed that"). It was a self-serving absolution, an easy way of escape from an unexpected and conflictual situation. On the contrary, such an "agentic shift" did not occur to defiant participants, who felt fully responsible for their actions inside the laboratory ("I don't want to do unethical things, I would be very disappointed in myself", "I disobeyed because I felt responsible towards friends", "If the experiment would really hurt people, I wouldn't want to be responsible for that").

### Courage is hard to muster

Our findings clearly point out that behaving in a moral manner is challenging for people, even when this reaction appears to observers (in our comparison condition) as the simplest path to follow. Recall some of the experimental features that should have contributed to defiance. Participants could terminate their involvement at any time without penalty (just by saying "no" once); the task did not have an incremental nature as did Milgram's shock generator; participants did not have to confront the authority directly (the final decision was made when they were left alone in another room); they were made aware at various points that the experiment on sensory deprivation was ethically questionable; they were allowed considerable time for reflection, and finally their potential victims were not anonymous "others" but their own friends and fellow students.

Despite all these factors it proved difficult for participants not to comply with the authority's request to lie and involve innocent people in a potentially dangerous study—so difficult that, in our view, both disobedience and whistle-blowing can be seen as noble and courageous acts. Defiance, in both the forms, was related to a severe restriction of freedom and autonomy. Participants took for granted that they were free to choose the words and, at least to a certain degree, the general tone of the message. What happened was exactly the opposite, a scenario that ignited in some participants a state of psychological reactance (“I did not see harm in writing the message, but leaving out the negative info was unacceptable to me”, “I was fine until I read that negative consequences could not be mentioned. Then I did not feel good”, “My decision [to blow the whistle] was influenced by the demand to leave out the negative consequences in the message”).

For disobedient participants, disobedience itself was probably “the greatest moral act” to perform against an unjust authority. It seems that, once they refused to obey, they showed a kind of “autistic” behavior that prevented them from investigating further about the mailbox or the Research Committee forms. As noted by our experimenter, most of the time such a strong decision happened in the first room and it was followed by a general lack of interest and attention to social stimuli (i.e., they avoided conversation and eye contact with him). These 21 participants might have lacked the concept, or had a too-vague one, that in certain circumstances, such as the one that they were in, something more could be done. This aspect can have differentiated disobedient participants from whistle-blowers, being these latter more equipped to detect the signals we had disseminated.

Future research is needed to disentangle this issue and others linked with which aspects defiant participants have in common. In our study it seems they all proceeded by making the same comparison between external demands and internalized moral standards; eventually the decision was not to obey an external authority but an internal one, a moral value that was regarded as the highest authority in charge. With respect to this point, a disobedient participant stated: “I would be very mad and disappointed in myself if I would cooperate, because it [the experiment on sensory deprivation] is unethical and goes against my principles.” Another disobedient participant stated: “I thought it was unfair and mean against the people that would receive the message.” A whistleblower said: “I did not want to have the harmful consequences weighing on my conscience, so felt obliged to do this.”

We therefore agree with Van Doesum (2011) who noted that when people are confronted with demands they perceive as unjust, the question is not

whether to obey an authority or not; the choice that matters is *which* authority to obey: The one making the demand or the one that would disapprove the resulting actions. It is eventually a matter of hierarchy.

Manuscript received 13 September 2011

Manuscript accepted 2 December 2011

First published online 13 January 2012

## REFERENCES

- Alford, C. F. (2001). *Whistleblowers: Broken lives and organizational power*. Ithaca, NY: Cornell University Press.
- Alicke, M. D. (1985). Global self-evaluation as determined by the desirability and controllability of trait adjectives. *Journal of Personality and Social Psychology*, *49*, 1621–1630, doi: 10.1037//0022-3514.49.6.1621.
- Alicke, M. D., Dunning, D. A., & Krueger, J. I. (2005). *The self in social judgment*. New York: Psychology Press.
- Aronson, E., & Carlsmith, J. M. (1968). Experimentation in social psychology. In G. Lindzey & E. Aronson (Eds.), *The handbook of social psychology* (2nd ed., pp. 1–79). Reading, MA: Addison-Wesley.
- Ashton, M. C., & Lee, K. (2007). Empirical, theoretical, and practical advantages of the HEXACO model of personality structure. *Personality and Social Psychology Review*, *11*, 150–166, doi: 10.1177/1088868306294907.
- Baumrind, D. (1964). Some thoughts on ethics of research: After reading Milgram's "Behavioral Study of Obedience". *American Psychologist*, *19*, 421–423, doi: 10.1037/h0040128.
- Blass, T. (1991). Understanding behavior in the Milgram obedience experiment: The role of personality, situations, and their interactions. *Journal of Personality and Social Psychology*, *60*, 398–413, doi: 10.1037/0022-3514.60.3.398.
- Blass, T. (1999). The Milgram paradigm after 35 years: Some things we now know about obedience to authority. *Journal of Applied Social Psychology*, *29*, 955–978, doi: 10.1111/j.1559-1816.1999.tb00134.x.
- Blass, T. (2004). *The man who shocked the world: The life and legacy of Stanley Milgram*. New York: Basic Books.
- De Vries, R. E., Ashton, M. C., & Lee, K. (2009). The six most important personality dimensions and the HEXACO Personality Inventory. *Gedrag & Organisatie*, *22*, 232–274.
- Everton, W. J. (1996). *The effect of whistleblowing consequences and perceived similarity on peer perceptions of whistleblowers*. Unpublished doctoral dissertation, Ohio University, Athens, OH, USA.
- Hopwood, C. J., & Donnellan, M. B. (2010). How should the internal structure of personality inventories be evaluated? *Personality and Social Psychology Review*, *14*, 332–346, doi: 10.1177/1088868310361240.
- Kaufmann, H. (1967). The price of obedience and the price of knowledge. *American Psychologist*, *22*, 321–322, doi: 10.1037/h0037664.

- Kelman, H. C., & Hamilton, V. L. (1989). *Crimes of obedience: Toward a social psychology of authority and responsibility*. New Haven, CT: Yale University Press.
- Kimmel, A. J. (2007). *Ethical issues in behavioral research: Basic and applied perspectives* (2nd ed.). New York: Wiley-Blackwell.
- Latané, B., & Darley, J. M. (1970). *The unresponsive bystander: Why doesn't he help?* Englewood Cliffs, NJ: Prentice-Hall.
- McClintock, C. G., & Allison, S. T. (1989). Social value orientation and helping behavior. *Journal of Applied Social Psychology, 19*, 353–362, doi: 10.1111/j.1559-1816.1989.tb00060.x.
- Meeus, W. H. J., & Raaijmakers, Q. A. W. (1986). Administrative obedience: Carrying out orders to use psychological-administrative violence. *European Journal of Social Psychology, 16*, 311–324, doi: 10.1002/ejsp.2420160402.
- Meeus, W. H. J., & Raaijmakers, Q. A. W. (1995). Obedience in modern society: The Utrecht studies. *Journal of Social Issues, 51*, 155–175, doi: 10.1111/j.1540-4560.1995.tb01339.x.
- Messick, D. M., & McClintock, C. G. (1968). Motivational bases of choice in experimental games. *Journal of Experimental Social Psychology, 4*, 1–25, doi: 10.1016/0022-1031(68)90046-2.
- Miceli, M. P., Dozier, J. B., & Near, J. P. (1991). Blowing the whistle on data-fudging: A controlled field experiment. *Journal of Applied Social Psychology, 21*, 271–295, doi: 10.1111/j.1559-1816.1991.tb00521.x.
- Miceli, M. P., & Near, J. P. (1992). *Blowing the whistle: The organizational and legal implications for companies and employees*. New York: Lexington.
- Miceli, M. P., Near, J. P., & Dworkin, T. M. (2008). *Whistle-blowing in organizations*. New York: Routledge.
- Miethe, T. (1999). *Whistleblowing at work: Tough choices in exposing fraud, waste, and abuse on the job*. Boulder, CO: Westview Press.
- Milgram, S. (1963). Behavioral study of obedience. *Journal of Abnormal and Social Psychology, 67*, 371–378, doi: 10.1037/h0040525.
- Milgram, S. (1965). Some conditions of obedience and disobedience to authority. *Human Relations, 18*, 57–76, doi: 10.1177/001872676501800105.
- Milgram, S. (1974). *Obedience to authority: An experimental view*. New York: Harper & Row.
- Mixon, D. (1972). Instead of deception. *Journal for the Theory of Social Behavior, 2*, 145–177, doi: 10.1111/j.1468-5914.1972.tb00309.x.
- Nisbett, R. E., & Wilson, T. D. (1977). Telling more than we can know: Verbal reports on mental processes. *Psychological Review, 84*, 231–259, doi: 10.1037/0033-295x.84.3.231.
- Ross, L., Greene, D., & House, P. (1977). The “false consensus effect”: An egocentric bias in social perception and attribution processes. *Journal of Experimental Social Psychology, 13*, 279–301, doi: 10.1016/0022-1031(77)90049-X.
- Ross, L., & Nisbett, R. E. (1991). *The person and the situation: Perspectives of social psychology*. New York: McGraw-Hill.
- Sabini, J. P., & Silver, M. (1980). Destroying the innocent with a clear conscience: A sociopsychology of the Holocaust. In J. E. Dimsdale (Ed.), *Survivors, victims,*

- and perpetrators: Essays on the Nazi Holocaust* (pp. 329–358). New York: Hemisphere.
- Van Doesum, N. J. (2011). *A hero to my friends: Resisting transgressions of obedience*. Unpublished manuscript, VU University Amsterdam.
- Van Lange, P. A. M., Otten, W., De Bruin, E. N. M., & Joireman, J. A. (1997). Development of prosocial, individualistic, and competitive orientations: Theory and preliminary evidence. *Journal of Personality and Social Psychology*, *73*, 733–746, doi: 10.1037/0022-3514.73.4.733.
- Van Lange, P. A. M., & Semin-Goossens, A. (1998). The boundaries of reciprocal cooperation. *European Journal of Social Psychology*, *28*, 847–854, doi: 10.1002/(SICI)1099-0992(199809/10)28:5<847::AID-EJSP886>3.0.CO;2-L.
- Zimbardo, P. G. (2007). *The Lucifer effect: Understanding how good people turn evil*. New York: Random House.