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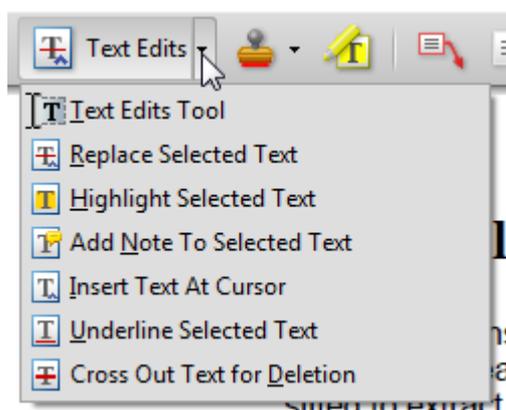
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## To defy or not to defy: An experimental study of the dynamics of disobedience and whistle-blowing

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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.

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

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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,

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30 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  
35 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  
40 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  
45 “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  
50 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.  
55 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  
60 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  
65 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  
70 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,

75 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.

80 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.

85 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,  
90 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  
95 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  
100 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  
105 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).  
110 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.

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## 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.

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## 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.

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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.

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*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:

140

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.

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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

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<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.

155 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  
160 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  
165 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  
170 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  
175 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].

180 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

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<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.

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185 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

190 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 question-  
able conduct to the Research Committee were considered "whistleblowers".  
195 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  
200 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-  
205 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  
210 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  
215 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  
220 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  
225 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,

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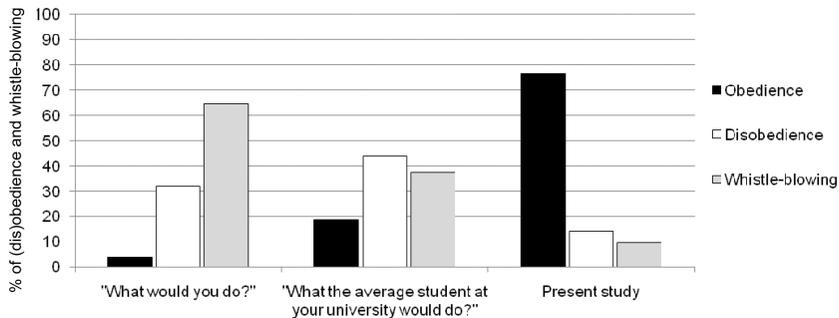


Figure 1. Differences between predicted and actual behavior.

265 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  
270 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

275 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*).  
280 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).

285 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  
290 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

<i>Personality dimensions</i>	<i>Obedient participants</i>		<i>Disobedient participants</i>		<i>Whistleblowers</i>		<i>F(2, 146)</i>	<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

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320 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

325 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  
330 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  
335 behavior to a range of seemingly innocuous features in any given behavioral context.

### On being special and invulnerable

340 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  
345 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  
350 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,  
355 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).

360 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  
365 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  
370 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,  
375 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  
380 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  
385 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  
390 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  
395 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

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400 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

405 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  
410 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  
415 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  
420 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

425 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  
430 (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  
435 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

480 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.

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