NOW THAT YOU KNOW, HOW DO YOU FEEL?  
THE MILGRAM EXPERIMENT AND PSYCHOLOGIZATION

Jan De Vos

Introduction

The Milgram experiment is probably one of the most well known experiments of the psy-sciences. Rightly so as the novelist Doris Lessing would have it, for according to her the human race has all this “hard information about ourselves” remaining unused to improve our institutions and therefore our life (Lessing, 1986: 50). The idea that it is to the benefit of everybody to spread the psy-theories is held by many psychologists themselves. George Miller, the cognitive psychologist, pleaded in his presidential address to the American Psychological Association in 1969 to “give psychology away”, claiming this is the royal road towards a “psychology as a means of promoting human welfare” (Miller, 1969). Later, Miller described Milgram’s experiments together with Zimbardo’s Prison Experiment, as “being ideal for public consumption of psychological research” (cited in Blass, 2002: 208). And indeed, Milgram’s studies, as Zimbardo’s, are clearly meant to be spread to a broad audience, the didactic and prophylactic objectives permeating the entire experiments from their very outset. In this paper, I will explore how the Milgram experiment in this way is caught up in the broader processes of psychologization.

The Milgram experiments took place between 1960 and 1963. Yale University psychologist Stanley Milgram wanted to study the willingness to obey instructions from an authority figure to perform acts that conflicted with one’s personal conscience. He came up with an experimental set-up where he could test the levels of obedience when people were ordered to punish another person by subjecting him to increasing levels of painful electric shocks – this person was a confederate actually receiving no shocks at all. Milgram situated his experiments in the tradition of experimentation in social psychology referring to Solomon Asch1, Kurt Lewin and others (Milgram, 1974: xiv). The work of these latter centred around the notion of conformity, which was the concern of social psychologists in the inter-war period as it was connected to the developments of the “mass society” (Stam et al., 1998: 160)2. Milgram writes that it was the horrors of the Nazi epoch which prompted him to shift the focus from conformity and the influence of the group, to obedience and the influence of authority (Milgram, 1974: 114-

---

1 Milgram had worked for Solomon Asch in Princeton (Parker*, 2002: 103). Note that this Ian Parker* is a British writer living in New-York, and is not to be confused with his namesake Ian Parker the critical psychologist from Manchester University, who I will cite further on in this paper (hereafter the British writer will be denoted with an * in the text).

2 For example Asch’s well known line discrimination study in which naïve subjects were pressured into making incorrect judgments about the length of lines by group pressure (Asch, 1951).
And so he devised his “Eichman experiment”, as it was called by Gordon W. Allport, of whom Milgram was a former student (Milgram, 1974: 178). Milgram himself indicated that Hannah Arendt’s conception of the banality of evil in her comments on the Eichman trial, came close to his own experimental findings (Milgram, 1974: 6).

In the experiment Milgram found high levels of obedience – a substantial proportion of his subjects continued to the last shock – and he laid down these “both surprising and dismayng” results (Milgram, 1974: 5) in an article offered to the Journal of Abnormal and Social Psychology. The paper however got rejected with the comment that it was foremost a demonstration rather than an experiment (Parker*, 2000: 112). Milgram then submitted the article to the Journal of Personality which also turned it down: the editor Edward E. Jones wrote:

The major problem is [...] your data indicate a kind of triumph of social engineering... we are led to no conclusions about obedience, really, but rather are exhorted [...] to be impressed with the power of your situation as an influence context (cited in Parker*, 2000: 112).

Milgram abandoned the paper (Milgram, 1981)3 and, maybe also to save his academic career, thoroughly rewrote his account by introducing all kinds of variables and their correlations. This new article was published under the title Some conditions of obedience and disobedience to authority in the journal Human Relations (Milgram, 1965a). There Milgram wrote that the crux of the study is to vary systematically different factors, “to learn under what conditions submission to authority is most probable, and under what conditions defiance is brought to the fore (Milgram, 1965a: 60)4. In his later book On obedience (1974) he eventually describes 18 variants of the baseline condition of the experiment, varying one variable each time (immediacy of the victim, closeness of authority, institutional context...) as the textbooks on experimental design require. Science saved by, in Christopher Lasch’s words, the classification of trivia (Lash, 1978: 90)? Maybe Milgram’s compliance – or do we have to call it obedience to mainstream scientific standards – led to both he and his commentators missing a chance: that is to analyse further what exactly the alleged triumph of social engineering was about.

Up until today many psy-scientists criticize the experiment as being a bad example of serious research. For example, Brannigan denounces Milgram’s experiment as a merely experimental dramatization of people’s capacity for violence. For Brannigan the results are self-evident and

---

3 Some months later, however, the editor of Journal of Abnormal and Social Psychology spontaneously recalled the initially rejected paper and published it (see Milgram, 1963).

4 In the first article he already speaks of varying systematically the factors believed to alter the degree of obedience, but there for Milgram the problem “is not one of designing increasingly more numerous experimental conditions, but of selecting those that best illuminate the process of obedience from the sociopsychological standpoint.” (Milgram, 1963).
tautological, leading to a theoretical dead-end despite the massive public
attention devoted to the experiment (Brannigan, 2004: 57). Denouncing
research results as self-evident is of course a rather weak argument, it
entails the promotion of a science producing unexpected or awkward
knowledge, revealing things as you never thought they would be. And
surely, much better examples of trivial findings than those of Milgram are to
be found in the psy-sciences. But foremost, is not the often triumphantly
declared critique of tautology not all too easy and ready at hand? For, is
tautology not an essential and maybe inevitable feature of the analysis in
human and social affairs? Neuro-imaging of aggression for example cannot
but depart from a certain conception of aggression. The images or the
discursive material offered to the test-subject to assess what happens on the
brain-level, do not come out of the blue. It is quite obvious that these
aggression-triggers are informed explicitly or implicitly by psychological
theories on aggression. In brain imaging the tautological circle neurology –
psychology – neurology is always present. As such this is not necessarily
problematical, only when this is not recognised it will certainly lead to trivial
research and theoretical dead-ends. But, maybe the most problematical in
Brannigan’s critique is the brushing aside of the, reluctantly admitted,
massive public attention Milgram’s experiment enjoyed. What remains thus
unquestioned is how the experiment came to be such a successful
demonstration of the effects of power, and thus became such a powerful
part of popular psychological imagery. For if one maintains that Milgram
does not explain anything, that it is merely an enactment, then one still has
to explain what it exactly enacts, what is the scene that Milgram sets up and
why he does that so well. Maybe Milgram’s enactments are so loathed by the
serious psy-sciences, because what is enacted belongs to the core of the
psy-sciences themselves.

The landing strip of individual psychology

What in short is the experiment about? The participant, together with a
second person who is actually a confederate, are told by an experimenter in
a grey lab coat that they are to cooperate in an experiment to test the effects
of punishment on learning. A rigged drawing appoints the naïve subject as
the teacher and the other person gets the role of learner. The latter is
strapped into a chair – in the base-line condition situated in an adjacent
room – with his right hand connected to the so called shock generator. The
naïve subject takes a place behind the control panel of the shock generator
and is to conduct a paired-associate learning task via the intercom. He is
ordered to punish each failure with an electric shock, moreover, with each
mistake, he has to move one level higher on the shock generator, the
switches range from 15V to 450V. The experimenter in his lab coat stays in
the room with the teacher, he is seated behind the subject taking notes.

5 From a psycho-analytical point of view, it is more interesting to focus on the so-called
evident, as the unconscious is exactly about a knowledge which doesn’t know itself; it is not
some deep buried unknown secret, it is the self-evident lying at the very surface.
Milgram filmed the experiment and used this candid footage to edit a 45 minute film called *Obedience* (Milgram, 1965b). By far the longest fragment in the film features a man called Fred Pozi and also in Milgram’s book of 1974 the session with Pozi gets much attention. Milgram describes him in a *psychologists-can-see-through-you* style as a good-natured, slightly dissolute and ordinary fellow (Milgram, 1974: 73). Pozi begins the experiment calmly but gets increasingly tense. He starts to protest at the level of 180V but is successfully countered by the standardized monotone phrases of the experimenter (“the experiment requires that you continue”). Pozi goes all the way, repeating twice the 450V switch as the experimenter prompts him to do. While the transcripts of the Pozi-session stops there, the films shows the post-experimental debriefing talk.6 We first hear the experimenter – off-screen – starting the debriefing interview, but after a little rupture in the footage, another person takes over, judging from the voice it is Stanley Milgram himself who intervenes: one is tempted to say because of the fact that Pozi must have seemed to Milgram such a good example of the experiment’s aim7.

Milgram.: I’d like to ask you a few questions if I may – How do you feel?
Pozi: I feel alright, but I don’t like what happened to that fellow in there, he’s been hollering. We had to keep giving him shocks, I don’t like that one bit. I mean, he wanted to get out, and he just kept going, keep throwing 450 Volts, I don’t like that, he won’t even look at that gentlemen.
Milgram: But who was actually pushing the switch?8

The first question immediately reveals what the experiment is about, the question *how do you feel* is revealing that the experiment indeed does not want to analyse but rather wants to *psychologize* the whole issue of obedience. Milgram’s questions ‘*do you feel upset*?’, or ‘*what did you feel then*?’ in the meantime have become the standard phrases of emo-television. The fragment furthermore shows that Milgram refuses any explanation of the subject blaming the situation. Milgram individualizes the scene: *who was actually pushing the switch?* So paradoxically, while Milgram’s

---

6 This debriefing moment did not always gave a full disclosure of the deception, as Milgram’s assistant Allan C. Elms contends, Milgram wanted to maintain the deception of most participants until most of his series of experiments were done (Elms, 2009). Nevertheless in his book of 1974 Milgram clearly presents the disclosure of the deception during the debriefing as the most pure form of his experiment. Although it is also an argument to counter critiques on the ethics of the experiment, Milgram is drawing most of his conclusions from instances where this kind of debriefing was the case. In our opinion it is only in this version that the paradigm of Milgram becomes full blown.

7 Although Milgram claims that the experiment is highly standardized, it becomes clear in the film that sometimes it is the experimenter and other times Milgram himself who conducts the debriefing interview.

8 This transcript of the Pozi session in the movie *Obedience* (Milgram, 1965b) and all the subsequent ones in this section are mine.
experiment wanted to show how obedience to authority is situational, the landing point of the experiment is the individual, or more exactly the psychology of the individual:

   Milgram: Why didn’t you just stop?
   Pozi: He won’t let me! I wanted to stop! I kept insisting to stop but he says no. I told him to look into the fellow, but he wouldn’t do it.
   Milgram: Is there anything that Mister Wallace in there could have said that would have gotten you to stop?

Milgram repeats this question up to three times, as if Pozi fails to give Milgram the right answer: and would not that answer have been something psychologizing, mentioning a tension between Mr. Wallace’s hollerings and the commands of the experimenter, the juxtaposition around which the experiment was set up? As Pozi keeps on missing this hint Milgram cuts things short:

   Milgram: Why didn’t you stop anyway?
   Pozi: I did stop, but he (the experimenter) [insisted] keep going, keep going!
   Milgram: But why didn’t you just disregard what he said?
   Pozi: He said it is got to go on, the experiment!
   Milgram: Okay, I’d like to tell you a little bit about the experiment… do you feel a little upset? [my emphasis]

Milgram then discloses the set-up of the experiment saying that the learner was not getting shocks and was only part of the act: “so why don’t we bring in Mr. Wallace”, says Milgram. And there we find ourselves in a typical psychotainment-show scene: the grand finale with its discharging of emotions. Milgram interrupts the reconciliation between Mr. Wallace and Pozi just one more time: “Now that you know (…), how do you feel (…).”

If the Milgram experiment is an enactment, then it is essentially about psychologizing: an intersubjective situation is set up in order to individualize and psychologize it. Milgram’s de-briefing restores to the unified subject of psychology its wholeness and synthesis, its autonomy and its self-consciousness, which for Lacan are the ultimate illusions cherished by psychology (Lacan, 1966: 832). For Lacan psychology is a powerful tool of “technocratic exploitation” (Lacan, 1966: 851) and this is illustrated by Milgram: his ingenious and forceful experimental design ends up with the coercive imposition of the discourse of emotions. The psychologizing how do you feel envisons the unification of the Lacanian barred subject. Is this not already an answer to the question why serious psychologists are that eager to whisk Milgram away? It holds some truth about their discipline and about the place of it in contemporary society: it betrays in an all too simple way that the business of mainstream psychology boils down to a psychologization process. Psychology brings not the analysis, in that way it
is not a science, it is the praxis of psychologizing. In the film we see this in full action:

Milgram: How do you feel?
Subject X: How do I feel? He was getting the shocks, I’m doing all right.
Milgram: How do you feel about Mr. Williams?
Subject X: I don’t know, never gave it a thought. You mean I didn’t like him?
Milgram: No, eh, well how did you feel about him?

This person, seemingly not yet acquainted with the individualizing psychological discourse, still needs to be introduced by Milgram into the psychological self-assessment with which we are so acquainted. Milgram’s social engineering is thus a self-enactment: the experiment is about how (social) psychology realizes its paradigms through the imposing of the academic, psychological gaze. Psychologization is about the psy-sciences legitimating their position in the movement of self-dramatization.

Obedience to psychology

Milgram writes that in order to study obedience he chose science to stand for authority, suggesting it could also have been the military, the church or the educational system (Milgram, 1974: 142). He thus not only downplays the central role of science in his experiment, he also masks the fact that it is the authority of the psy-sciences which he brings into play. The whole outset is marked by, in psychoanalytical terms, a transferential context unrecognized or unquestioned by Milgram itself. While however, psychology as a signifier enters the script from the very start: “I should like to tell both of you something about The Memory Project”, thus the experimenter starts his introduction:

Psychologists have developed several theories to explain how people learn various types of material. Some of the better-known theories are treated in that book over there, The Teaching Learning Process by Cantor (Milgram, 1965b).

Science, and more specifically psychology, is the frame of the experiment. The fact that the participants are shown the Cantor book displayed on a stand, as we see in Milgram’s movie (Milgram, 1965b), indicates that psychology is the master-signifier of the experiment, serving as a quilting point (‘point de capiton’, Lacan, 1966) structuring the whole setting. Psychology is thus explicitly present, on a stand, without being made explicit by Milgram. After showing the Cantor book, the experimenter continues to explain the theory of the role of punishment in the learning process and describes the aim of the experiment as wanting to find out more about that. This short introduction on behaviouristic learning psychology is
followed by the rigged drawing, supposedly to decide who will be the teacher and who the learner. Many critics have observed the illogicality of this, as Orne and Holland put it:

[T]he investigator presumably is interested in determining how the victim’s rate of learning is affected by punishment, yet there is nothing that he requires of the S (teacher) that he could not as easily do himself (Orne & Holland, 1968: 287).

Also Brannigan remarks that the credibility of the experiment is not furthered by the fact the teaching could obviously be carried out without volunteer teachers (Brannigan, 2004: 55). But stressing the incredibility, do these commentators not miss – together with Milgram himself – what this role assignment essentially is about? What Lacanian discourse theory teaches us is that we have to look for the subject positions in a particular organization of a discourse (Parker, 2005) And here Milgram’s experiment is very clear: assigning the subject as the teacher actually turns the layman into an experimental learning scientist: the role assigned is the role of psychologist! Maybe this is also why the subjects so easily and uncritically submit to the role assignment: because they are very familiar with it. For in processes of psychologization the so-called layman invariably is turned into a proto-psychologist: he is called upon to look at himself through an academic and psychologizing gaze: he is to become his own psychologist. How do you feel?, Milgram’s basic post-experimental question, exactly induces this way of looking upon oneself from the perspective of psychology. Milgram, introducing the experiment to the subjects, keeps his reference to learning psychology brief and basic because he presupposes a widespread familiarity with these psychological theories. It is furthermore crucial to see that the role of the proto-psychologist is essentially that of an apprentice, of a student: the psychologization discourse is an educational discourse. We must understand Milgram’s experiment as a basically didactic experiment where the subject plays the role of psychologist to be consequently debriefed in order to take up the role of student in the psy-sciences. Not surprisingly Milgram, as the real Teacher of the experiment, has his favourite students. Mr. Braverman is one of them, as he clearly differs from Fred Pozi or the man we have called subject X who can be seen as the prototypes of the pre-Milgram era, the ones still not fully immersed in the psychologization discourse. Milgram writes about Mr. Braverman:

9 When Stam et al. question the transfer of Milgram’s research results on the argument that the set-up of the experiment as a “teaching” and “learning” exercise is natural to an educational context but not to the historical examples of obedience Milgram wishes to address (Stam et al., 1998: 161) – then one could ask if the psycho-educational context is not more widespread then Stam et al. think. Milgram’s choice to use the scientific framework, and especially psychological research as such, as the background for his agent of authority is not fortuitous. Academization and psychologization are but facets of modernity coming to full blossom in the 20th century, and it would be interesting, but beyond the scope of this paper, to reread the historical examples of obedience in this light.
In the interview, Mr. Braverman summarizes the experiment with impressive fluency and intelligence. He feels the experiment may have been designed also to “test the effects on the teacher of being in an essentially sadistic role, as well as the reactions of a student to a learning situation that was authoritative, rigid and punitive” (Milgram, 1974: 53).

The experiment thus has the structure of the process of psychologization. Braverman becomes the scientist-apprentice adopting a scientific and psychologizing view on his own behavior and thoughts. As the experimenter asks the typical psychologizing questions, Braverman does not fail to answer him in the expected format:

Experimenter: At what point were you most tense or nervous?
Braverman: Well, when he first began to cry out in pain, and I realized this was hurting him. This got worse when he just blocked and refused to answer. There was I. I’m a nice person, I think, hurting somebody, and caught up in what seemed a mad situation . . . and in the interest of science, one goes through with it (Milgram, 1974: 53-54).

Here we see why Lacan critiqued the American Ego-Analysis and other forms of psychotherapy: they lead to an identification with the analyst or psychotherapist (Lacan, 1966). Milgram shows on top of this that this identification is essentially about identifying with the position of the psychologist and his outlook, his *gaze*, on the world. *There was I*, says Braverman: this is the gaze of psychology in action. It is not surprising that in a questionnaire one year after the experiment Braverman fully engages in the psycho-babble:

What appalled me was that I could possess this capacity for obedience and compliance to a central idea, i.e., the value of a memory experiment even after it became clear that adherence to this value was at the expense of violation of another value, i.e., don’t hurt someone who is helpless and not hurting you. As my wife said, ‘You can call yourself Eichmann’, I hope I deal more effectively with any future conflicts of values I encounter (Milgram, 1974: 54).

Here the didactical objectives of the experiment lie at the surface. Milgram’s experiment is about teaching his subjects a lesson. The post-experimental question “What in your opinion is the most effective way of strengthening resistance to inhumane authority?” (Milgram, 1974: 52) calls the subject into the psychology class. But the specificity of psychologization is that once you call subjects into the classroom, you cannot simply send them back to outside naive life again: having adopted a reflexive view, there is no way back. The draft into psychology hails the subject irreversibly into the ranks of the (proto)psychologists.
The Milgram experiment shows how the theory and the praxis of psychology is caught up in what Lacan calls the *university discourse*: in which the subject claims presence in being a subject and in its mastery of itself and the universe (Lacan, 1998, 56). Once the subject is seduced into the university discourse, he claims to be himself part of those supposed to know. As one of Milgram’s subjects put it:

> Although I am ... employed in engineering, I have become convinced that the social sciences and especially psychology, are much important in today’s world” (Milgram, 1974: 52)

Milgram reports that a large number of subjects spontaneously requested to be used (sic) in further experimentation (Milgram, 1965a: 58). He considers the didactic effects as a central positive outcome of the experiment and he writes that the subjects on the whole viewed the experiment as an opportunity to learn something of importance about themselves, and about the conditions of human action (Milgram, 1974: 196). But has this approach not always been a strong current in social psychology? A good example of this position is Baron and Byrne’s claim that there is growing evidence that “when individuals learn about the findings of social psychological research, they may change their behaviour to take account of this knowledge” (Baron and Byrne, 1994: 384). The objective of the psy-sciences is the mastery of the subject of itself and the universe, A kind of enhanced and improved meta-behaviour informed by science is considered possible. But as we see that Milgram’s subjects, in their assigned role as experimental social scientists, seem to disregard all the evident clues of deception, does this not illustrate the psychoanalytical idea that the university discourse ultimately is driven by a “passion for ignorance”, a desire not to know (Lacan, 1998: 121)? And here Milgram’s subjects seems to share something with Milgram himself: for Milgram himself seems to be completely blind to the fact that the use of the theoretical framework of psychology as his figure of authority leads to quite dazzling looping effects. Or as David Corfield puts it: what passes unspoken in the experiment is Milgram’s relation to the scientific imperative (Corfield, 2002: 199). Let us go deeper into that in the next section.

**Obedience to science**

While the mainstream critique is that Milgram deceived his test-subjects in an all too obvious way, this cannot really account for the fact that Milgram’s subjects seem to disregard the manifold clues. Milgram’s commentators disregard or misinterpret this *desire not to know* because they fail to understand that this exactly pertains to the core of obedience. Take for example Orne and Holland (1968), one of the earliest influential critiques. Criticizing Milgram’s use of deception, they argue that while probably many of Milgram’s subjects had figured it out, they nevertheless went through with the experiment because of a kind of a *pact of ignorance*: they continued
in order not to jeopardize the experiment. Moreover, as they write, many of the subjects might have acted on the idea that, being in a scientific setting, it had been taken care off that no real damage or hurt would come to anyone (Orne and Holland, 1968). Downplaying the experiment as scientistic they want to rescue the idea of a scientific based (social) psychology which would not merely be a self-enactment or self-dramatization. What they miss together with Milgram is how the science of psychology is inextricably bound to the dynamics of psychologization. For what Orne and Holland fail to see is that their critique exactly shows how obedience enters the very heart of Milgram’s experiment. The so called pact of ignorance shows again the compliance, the obedience as such, which is as far as we know much higher then the 65% of obedience Milgram found. In the perspective of Orne and Holland, 100% of the subjects complied, for there are no reports of subjects who denounced the experiment as fake right from the start: everybody seems to have accepted to be part of Milgram’s amateur dramatics.

Is there anything more powerful then faked obedience? Let us illustrate this with a little anecdote of an adolescent girl attending a hypnotist show. The hypnotist asks the audience to clasp their hands together as hard as they can, he predicts that their hands will stay together when they are asked to release the pressure. But as the experiment does not work out, he quickly asks if anyone at least felt some counter-pressure (which is of course perfectly understandable as the effect of muscular tension). The girl shyly raises her hand and much to her dislike in being picked out as a volunteer, she does not dare to refuse. The hypnotist asks her to close her eyes, he is going to bring her into hypnosis and make her body so rigid that it can be stretched like a plank between two chairs. While she thinks the hypnosis is not working, she decides to play the part and tries to hold her body as stiff as possible as she is being laid on two chairs. Afterwards her friends tell her that it was really amazing, although, judging from the pictures from the digital camera, she herself does not find the curve of her body very impressive. Is this not an example of how faked obedience can be quite powerful? In this instance the desire not to know assumes the form of (fetishist) disavowal: I know very well... but nevertheless (Mannoni, 1969) which is a powerful stance in social dynamics. For example, a leader is maybe better off with faked obedience, with subordinates who amongst peers critique their leader and in the back of their minds reserve a private personal space. What critics such as Orne and Holland miss is that faked obedience might thus be stronger then so called blind obedience. Just think about the compliance of employees to cooperate with the role games and team building activities set up by the Human Resource Management (HRM) department however infantile and humiliating they are. Faked compliance is the compliance able to rise to the 100% level.

However when one searches for 100% obedience, the Milgram experiment still offers a much simpler instance. Milgram got 100% obedience from his confederates, especially from the so-called experimenter who was to prompt the naïve subject to go on. That role was played by John Williams, a 31-year-old high school biology teacher who had a set of
prompts he had to use when the subject protested or hesitated to administer the shocks. However much the subjects were in distress, asking to be allowed to stop, begging him to look in to the poor victim, Williams remained unmoved and, fully complying with his assigned role, he carried on with the experiment. But of course we cannot stop with Milgram as the last authority, we have to ask the question to whom is he answering, to whom is he obeying. There the answer is, as we have already suggested in our introduction, he is obeying (or faking to obey, remember his rewriting of his original article) science. In this respect David Corfield compares Milgram with the Abraham figure, the one required to inflict senseless pain, in this case not on his own son but on 1000 men from Bridgeport and New Haven:

So, if Milgram is Abraham and the subject is Isaac, then what plays the role of God? The only answer to this question is science itself. Obedience to God’s command outweighs such aesthetic considerations as the pleasure gained from his child and such ethical considerations as that of putting his son’s life before his own […] (Corfield, 2002: 198)

It is only from the perspective of the theme of obedience to science – in which all the parties in the experiment up to Milgram himself are caught – that we can understand the fundamental theatricality of the experiment. The fact that the so called naïve subjects are put in the role of experimental psychologists entails that the setting of the drama cannot be overlooked: we are in the midst of Academia. Moreover, Milgram is fully aware that he has set up the scene departing from a scenario featuring Science. He understands that he obtains obedience with academic currency: he writes that it is the idea of science and its acceptance which “provide the overarching ideological justification for the experiment” (Milgram, 1974: 142). Yannis Stavrakakis even reads a proto-lacanian formulation in Milgram’s assessment on the source in authority: when Milgram writes that the subject enters the situation with the expectation that someone will be in charge and that the experimenter “fills a gap experienced by the subject”, Stavrakakis recognizes there Lacan’s formula of fantasy (Stavrakakis, 2007: 175). This fantasmatic frame that supports the symbolic command and binds the subject to the elementary structure of obedience is for Stavrakakis science itself (Stavrakakis, 2007: 175). But is it not strange that where Milgram is fully aware of the power effects of science, he nevertheless fails to assess his own position and fails to take into account the looping effects of obedience in his experiment? This is the disavowed tautology in Milgram: his experiment is science studying the power effects of science. That is where

---

10 In this light, G.A. Shelton conducted an interesting variant of Milgram’s experiment: she put her subject in the role of the experimenter having to oversee the teacher, who actually was also a confederate. She had 22 out of the 24 subjects continuing to the end despite the teacher - as shock levels increased - becoming more and more anxious, i.e. she “expressed uneasiness, then became quite anxious, angry, on the verge of tears; cursed, complained of stomach pains, asked for a glass of water, and pleaded with the experimenter to stop the session…” (cited in Blass, 2000: 52-53)
his experiment becomes a blind *acting out*, a mere enactment of the fantasmatic frame of science. It is exactly there, at the blind spot of the fantasy, that the paradoxes and the looping effects arise and thus the power effects of science become clear, not as an analysis, but as an acting out. For in the end, Milgram’s main move is the psychologizing post-experimental debriefing: the powerful imposing of the psychological gaze: *now that you know, how do you feel?* To go one step further, the inevitably blind spot of science which characterizes and structures the powerful *university discourse* (according to Lacan the dominating discourse in late-capitalist society), is the place where the psy-sciences come in: functioning as a tautological keystone. For, the Milgram experiment is not only an experiment of obedience to authority and to science, but it shows us that we have come to the point where we cannot but understand obedience from the framework of psychology.

What then is the result of being subjected to this university discourse? Žižek warns us to avoid the Foucauldian misreading:

... the produced subject is not simply the subjectivity which arises as the result of the disciplinary application of knowledge-power, but its remainder, that which eludes the grasp of knowledge-power. (Žižek, 2005: 139-140)

The subject does not simply stand for the result of the discursive operation, but rather for its *indivisible remainder*, the excess which resists being included in the discursive network (Žižek, 2005: 140). The subject is thus not the sum of the objectivations of bio-science: man is exactly the fall-out of the encroaching of science on his *Lebenswelt*. We can say then that since the Enlightenment, subjectivity is the name of this problematic aspect of modernity. Therefore the subject is both the main problem and often the unwanted guest of the sciences, the one who spoils it all. Psychology then claims to take care of this problematic subject: psychology aspires to be the meta-theory of all the sciences, taking care of the breaches subjectivity causes in the constructions of science. What Milgram and (with him) mainstream psychology neglect is that the subject they want to approach with their science, is already a product of Enlightenment, of modernity, of science. In this way Milgram’s experiment cannot be a re-enactment of the modern process of subjectivation: it produces a subject baffled, humiliated and reduced to the scientific analysis which was scripted into the entire experiment itself. In this way, Milgram’s experiment is the acting-out of the psychologization processes enclosed in the project of modernity – and this, as we will probe in the last step of our critical engagement with Milgram’s experiment, is connected with something one is tempted the call a *perverse core in psychology*. 
The obscene surplus of obedience

Milgram’s stance of now that you know is a clear instance of Lacan’s conception of a two-body psychology. The ‘you’ of now that you know, is the unified psychological subject (as we have called it earlier) addressed by the person (this is the second body) of the psychologist. Both constitute the parties of a two body-psychology which for Lacan boils down to

... the relation of two bodies between which is established a fantasmatic communication in which the analyst teaches the subject to apprehend himself as an object; subjectivity is admitted into it only within the parentheses of the illusion, and speech is placed on the index of a search for the lived experience that becomes its supreme aim, but the dialectically necessary result appears in the fact that, since the subjectivity of the analyst is free from all restraint, his subjectivity leaves the subject at the mercy of every summons of his [the analyst’s] speech (Lacan, 1966: 304-305, English translation: Lacan, 2001: 67)

Milgram’s now that you know, how do you feel teaches the subject to look upon himself as an object: the you of how do you feel is the searched for illusionary lived experience which alienates the subject under the coercive objectifying stance of the expert. If then Lacan argues that such an approach cannot but lead to the identification of the subject with the psychologist, this is clearly illustrated with Milgram: the subject asked to look upon himself as the object of his feelings, is thus compelled to identify with the psychologist’s gaze. Furthermore, “the being at the mercy of every summons” of the expert reveals something of the latter’s whimsical power. For Lacan, the appeal to look upon oneself as an object, the appeal of the reality function, is clearly connected to the obscene, ferocious figure of the superego (Owens, 2008). And is this dimension not clearly traceable in Milgram’s experiment?

For, looking at the film one for example cannot but be struck by the monotone and technical way the experimenter Williams prompts the subject to go on: featureless and without emotions he repeats his standard phrases. It is quite obvious, Milgram looking for obedient torturers, had already scripted one into the experiment. It made Bruno Bettelheim remark that Milgram’s work was “so vile that nothing his experiments show has any value” and that they were in line with the human experiments of the Nazis (cited in Parker*, 2000: 116). And does this not seem to be the case, and does thus not something of the dimension of the obscene, ferocious figure of the superego becomes present in Milgram’s experiment? While Milgram dismisses the Freudian explanation of aggression and destructive tendencies playing a role in his obedience experiment (Milgram, 1974: 165), these tendencies seems to re-emerge at the site of the experimenter and his merciless treatment of the test-subjects. Just think of what Milgram considers as experimental evidence against the Freudian thesis: in variation
11 of the experiment the subjects were free to use any shock level they wished, and it turned out they only used low-levels of shocks, even while “the experimenter took pains to legitimize the use of all levers on the board” (Milgram, 1974: 166). Is not that expression, ‘of taking pains’, pointing to the fact that sadomasochistic tendencies were still haunting the experiment, be it on the side of Milgram and his confederates? Also Stam et al. argue that the use of deception as a means for extracting the truth, departing from the premise that people are simply not honest, “bears some resemblance to the topos of torturers who express regret for having to deal with the victim’s obstinacy” (Stam et al., 1998: 169).

What is meant to be researched becomes exactly the blind spot of the experiment: not only is obedience being blindly enacted, but also an obscene surplus becomes visible. As Dannie Abse suggested: if Milgram was looking for little Eichmanns\footnote{Although Milgram himself in a way knew this: as he noted that urging his staff to keep up the supply of experimental volunteers, echoed Eichman’s task to organize the transport of the Jews to the death camps (see Parker, 2002: 114).} then “the experimenter had to act the part, to some extent, of a Himmler”\cite{Brannigan, 2004: 58}. But if we read the experiment to the letter, then it is only in their assigned role as experimental psychologists, that the subjects are turned into torturers: to be topped by the experimenter who becomes the torturer of them all. So the question is, what is Milgram’s role? Is he not the one who in the end at the Candid Camera\footnote{Ian Parker writes that Milgram was a great admirer of Candid Camera, which became a network hit in 1960 (Parker, 2002: 103).} moment of disclosure, comes to recollect what in psychoanalysis is called the surplus-value, the surplus jouissance?\footnote{Lacan’s concept of surplus-jouissance (surplus-enjoyment) refers to the Marxist conception of surplus-value. For Lacan the university discourse resembles the discourse of the capitalist; where the wealthy acquire knowledge on top of everything else, as Lacan puts it: they don’t pay for it (Lacan, 1991: 95). Isn’t this the position that Milgram takes?} The Candid Camera moment of disclosing the situation is the moment where the implicit script becomes the explanation and the analysis of the whole situation. This is of course how role-playing games used in educational, HRM or even psychotherapeutic settings, are set up: you play and enact a pre-scripted situation after which the script itself is revealed as the analysis. In the Milgram experiment, the revelation moment is so to speak capitalised on several levels: not only are the participants subjected to it, but so too are the viewers of Milgram’s documentary “Obedience” (Milgram, 1965b): only after a good time has elapsed do the viewers learn the real set-up of the experiment. This technique is often repeated in papers, textbooks and T.V.-documentaries on Milgram: up to and including in the auditoria, the experiment is usually introduced without disclosing the deception, so that after having asked the question what would YOU do? the lecturer proceeds to the moment of revelation-humiliation and the further scientific
détumesence: now that you know, how do you feel? That is the moment of the recollection and the capitalisation of the surplus-jouissance.

What gets obliterated here is the position from where the question and what would you do? is asked: who is the enunciator of that question? It seems that the concept of the agentic state, Milgram’s attempt to theorise his findings, foremost describes the position of the social scientist himself:

... the person entering an authority system no longer views himself as acting out of his own purposes but rather comes to see himself as an agent for executing the wishes of another person (Milgram, 1974: 133).

This is also true of the experimenter and Milgram themselves. Milgram, from a meta-human, meta-subjective position, assumes the task as the mere servant of science to... humiliate the subjects. Psychoanalytically, this reducing oneself to an instrument of science, is strictly homologous to the position of the pervert. As Lacan states, the pervert is occupying the place of the object for the benefit of another, “for whose jouissance he exercises his action as sadistic pervert” (Lacan, 1978: 135): it is not my will nor responsibility to bring all this obscenity to light, I am merely an instrument of science. The whole Milgram experiment is set up to lead to the moment of disclosure, the lifting of the veils to reveal the subject’s supposed true nature and this moment of humiliation serves the constitution of the pervert agent of science as it exerts its power over its victims, the naïve subjects. Put bluntly: the lesson of psychology is the power of psychology. Milgram’s experiment is meant to dazzle the test subject and the broad public with the power of science to lay bare the human condition: might you not have gone to the 450V level as 65% of the people do? That is the humiliation Milgram had us awaiting, degrading us to screens onto which the knowledge of psychology is projected. Now that you know, how do you feel then is the ultimate Anrufung forcefully drawing the subject into the discourse of psychology. Milgram shows how the psy-sciences are able to reach full compliance: enforcing introspection it promises us redemption letting us believe that salvation exactly lies in science. The subjects of psychologization are promised access to the surplus jouissance of Knowledge.

The Milgram experience shows how psychology in this way, exactly through its own enactment, is a very powerful discourse. And here we have to broaden the perspective: the humble and sacrificial obedience to science leads to the obedience to power in general. In other words: Milgram’s enactment of the power of social psychology, prepares us for the power of today’s hegemonic discourses, or as Stam et al. put it very concisely:

---

14 The humiliating aspect of the Milgram experiment was quite quickly criticized by for example Diane Baumrind, dealing however with this issue from the narrow perspective of the ethics of experiments with human beings (Baumrind, 1964).

15 Interpellation is Althusser’s term to describe a mechanism whereby the human subject is ‘constituted’ (constructed) by pre-given structures.
The evidence then becomes a reason for accepting the authority of social psychology as knowledge about the conflicts in our lives. The Milgram studies show the correctness of the American position as a nation, as a middle class, and as people on the “side of freedom and decency” (Stam et al., 1998: 173).

It is clear, nothing much emancipatory is to expected from the Milgram experiment. Just consider what the already mentioned Doris Lessing wrote:

Imagine us saying to children: "In the last fifty or so years, the human race has become aware of a great deal of information about its mechanisms; how it behaves, how it must behave under certain circumstances. If this is to be useful, you must learn to contemplate these roles calmly, dispassionately, disinterestedly, without emotion. It is information that will set people free from blind loyalties, obedience to slogans, rhetoric, leaders, group emotions” (Lessing, 1986: 60).

Well there it is, in all its bluntness: let us use social psychology to produce calm, dispassionate, disinterested, emotionless, and thus obedient persons.

**Conclusions on disobedience**

Milgram understands disobedience as the expression of the fact that transformation to the *agentic state* for some subjects is only partial:

Residues of selfhood, remaining in varying degrees outside the experimenter’s authority, keep personal values alive in the subject and lead to strain, which, if sufficiently powerful, can result in disobedience (Milgram, 1974: 155).

The residues of the person behind the clerk, behind the bureaucrat, behind the scientist – we’re back on the landing strip of individual psychology – is where according to Milgram the grains of disobedience are to be found. Drawing upon Slavoj Žižek however, one can argue exactly the opposite: these personal residues are what make the call for obedience work:

... an ideological identification exerts a true hold on us precisely when we maintain an awareness that we are not fully identical to it, that there is a rich human person beneath it: ‘not all is ideology, beneath the ideological mask, I am also a human person’ is the very form of ideology, of its ‘practical efficiency’ (Žižek, 1997: 21).

The person who identifies totally with the system even renouncing the whole of his/her selfhood is dangerous for authority. Žižek gives the example of the soldier in the Vietnam movie *Full Metal Jacket* who over-identifies with the military ideological machine: totally immersed, he loses his mind and shoots
both the drill-sergeant and himself (Žižek, 1997: 21). The real functionally obedient soldier is the one who keeps a critical distance: fostering his residues of selfhood, in the end he always complies. In Žižek’s example it is the soldier who writes ‘born to kill’ next to a peace sign on his helmet who eventually turns out to be the reliable military subject (Žižek, 1997: 21). Is the image not well known of the German Nazis in the death camps retreating for the night in their private quarters to converse, listen to music and to read Goethe?

The psychologised disobedience celebrated by Milgram is ambiguous still from another viewpoint. Because, while it appears that Milgram promotes dissent from authority or from the hegemonic discourses, he eventually only promotes a saying no to malevolent authority, to the bad dr. No. This presupposes that the subject will still say yes to good science, just and democratic society, and honest law and order: in other words, to the American way of Life. Milgram’s message is but a say no to dr. No! Also Stam et al. come to this conclusion, writing that Milgram boils down to a sanitized message to disobey “destructive authority” without ever naming that authority or pointing to the effects of that authority in our world other than through distant historical analogy (Stam et al., 1998: 176).

Does this sanitizing not culminate in the Candid Camera moment of disclosing the deception? There the Milgram experiment becomes full blown: instead of the intended re-humanization, this moment of psychologization is humiliating and de-subjectivating: now that you know, how do you feel – please indicate on a scale. If there is one moment in the experiment which is thus structured as to make almost impossible any disobedience, it is here. Disobedience here would be the refusal of the scripted reconciliation and the coercive psychologization of the experience: what should be rejected is the therapeutic administered sympathy, the carefully planned draining of emotions and the further theoretizations.

Milgram’s experiment, in it didactic objectives, beholds the fantasy of the scientific informed hero who would be able to withstand malevolent authority and perform some enlightened act of resistance. Having loathed those who obey while comforting themselves on account of their disobedient thoughts, claiming thus to be on the side of the angels (Milgram, 1974: 10), Milgram sees the real angels as those enlightened by science. But where does this situate Milgram himself if not above the angels and the devils as well? Milgram assumes what Lacan calls the place of the Other of the Other16. And this furthermore seems to have a decisive effect on the relationship of the subject vis-à-vis his equal, for Milgram writes about a particular subject:

What is extraordinary is his apparent total indifference to the learner; he hardly takes cognizance of him as a human being. Meanwhile, he

16 Zizek defines the Lacanian notion of “The Other of the Other” as the meta-guarantee of the consistency of the symbolic order that regulates social life (the big Other) (Zizek, 2000: 362).
relates to the experimenter in a submissive and courteous fashion [...](Milgram, 1974: 48).

So for Milgram, morality does not disappear:

Instead, it acquires a radically different focus. He does not respond with a moral sentiment to the actions he performs. Rather, his moral concern now shifts to a consideration of how well he is living up to the expectations that the authority has of him (Milgram, 1974: 8).

Milgram’s experiment thus empties the relation of a subject with his fellow man of any human qualities. The effect of the authority of science is that the locus of humanity shifts to the transferential relation of the subject with the scientist or science in general. That is where Milgram keeps his subjects imprisoned and there the coerciveness of the experiment becomes total. For at the debriefing the equal turns out to be nothing more then an actor, a prop on the stage. The only substantial and meaningful relation at the end is the one between the subject and Milgram, the representative of the powerful psy-sciences. Milgram’s experiment there is the enactment of the production of psychological man locked in his relation to Science.

But do we here not have a similar logic with psychoanalysis? Is not the analytic setting the ultimate example of emptying the outer world? As the analysand engages in his soliloquy the others and the world as such become nothing more then the effects of solipsism. If Stam et al. write that in the Milgram experiment the “subjects’ bodies are first abstracted from their social context and then recontextualized in a way that denies their social constitution” (Stam et al, 1998: 161), then this critique also holds for psychoanalysis. Because, is not psychoanalysis, as Žižek puts it, the ultimate method of humiliation?

... is not the very aim of the psychoanalytic process to shake the foundations of the analysand’s fundamental fantasy, i.e., to bring about the “subjective destitution” by which the subject acquires a sort of distance toward his fundamental fantasy as the last support of his (symbolic) reality? Is not the psychoanalytic process itself, then, a refined and therefore all the more cruel method of humiliation, of removing the very ground beneath the subject’s feet, of forcing him to experience the utter nullity of those “divine details” around which all his enjoyment is crystallized? (Žižek, 1991: 156)

Of course the crucial point is that psychoanalysis does not, as psychology does, envision a subsequent restitution of man as a psychological being: in contrast to psychology, psychoanalysis pretends not to be the cure to the experience of this subjective destitution, this zero-level of subjectivity17.

17 Psychoanalysis in the Freudo-Lacanian tradition does not aim to supplement the zero-level of subjectivity. On the contrary, so called post-Freudian Ego-psychoanalysis has been
Psychoanalysis in this way claims to be the very tool for deconstructing Academia. Psychoanalysis as the refusal of scientific humanism, the refusal of the closure of the system, can be a method to analyse how experiments like Milgram’s are not in any way subversive but on the contrary lead to conformity to the hegemonic discourses.

But, one could reply, what does psychoanalysis then offer? Is not psychoanalysis equally impotent in showing alternative ways of disobedience? For, is not Milgram’s celebration of the heroic act of disobedience not very close to what Žižek always seems to end up with, the romanticizing of the individual act? Ian Parker (the critical psychologist this time) for example criticizes Žižek’s romanticizing of resistance, while it reduces collective political action to individual heroic ‘acts’ (Parker I, 2004: 97). This critique then returns almost literally in Parker’s assessment on Milgram: where Parker states that Milgram blocks the road to a valuation of the social: Milgram’s message is “the social is bad for you and others” (Parker, 2007: 85). But is not the social, together with subjectivity, a category that has become problematical and paradoxical since the Enlightenment? Both categories are invariably deconstructed and reduced to biological, evolutionary, psychological or social mechanisms. Academia is the total incorporation of the Lebenswelt, alienating both the subject as well as the social. In this way both the subject and the social have irrevocably lost any positive substance outside Academia. Regarding the social, just think of governmental programs backed up by Academia which for example claim to restore the social fabric by creating meeting spaces to provide chances for dialogue and encounter. The social there cannot but come in an academic version.

So if psychoanalysis departs from both a zero-level of subjectivity, as a zero-level of society, the crucial point becomes then the position one takes vis-à-vis the university discourse. The mainstream psy-sciences embrace the university discourse unproblematically: claiming to be a full science, psy-science promises reconciliation and academically informed ways to integrate both subjectivity and society. The paradox of this we see emerging with Milgram: puzzled with the Eichman figure, he says, let us study authority, take the authority of... science. This is problematic because Milgram himself claims to speak from within science, and secondly, this prevents him from seeing how science itself is implicated in modernity and its own deadlocks – of which the Holocaust might be one of the important manifestations. So at the end, the problem of modernity, which maybe comes to light especially in late-Modernity, is that Academia has itself become the stand-in for society, depicting a psychological man as the stand-in for the subject. This is what psychoanalysis as a discourse which claims a place (partly) outside of Academia is able perhaps to critique. For exactly reproached by Lacan for aiming at the building up of strong, well-adapted Ego’s (Lacan, 1966).

18 Even attempts to bypass academia like ‘action research’ cannot escape the academisation of everyday life: “be your own expert – be your own researcher” is of course nothing but a further inducing of the academic gaze.
psychoanalysis is not a discourse of knowledge, but a discourse of truth. So, if psychoanalysis wants to remain true to the cause of the Truth, it shall have to choose another place than Academia, maybe *Theoria*, as defined by Žižek could be an option.

And, incidentally, this is also how the critique of ideology (whose Platonic origins one should unabashedly admit) functions: it endeavours to smash our ears (hypnotized by the ideology’s siren song) so that we can start to hear with our eyes (in the mode of theoria) (Žižek, 2006: 224).

So let us not be lured then by today’s supposed stringency of our ethical committees: because while Milgram would today not be allowed to conduct his experiments, we are getting his psychologizing/desubjectivation scheme back in manifold ways via the siren song of ‘psychotainment’. As Jenny Diski writes, these days nothing prevents similar ‘experiments’ (Big Brother, Castaway & Co) “being carried out repeatedly for our fascination and entertainment on reality TV shows” (Diski, 2004). Milgram’s experiment, as a mere demonstration leading to no understanding whatsoever, seems to be the mother of all psychotainment shows. We should therefore not understand psycho-reality-shows as plain or direct insights into the human condition, instead pretty much like the Milgram experiment, these fully scripted programmes are written with the psychology textbook on the lap (De Vos, 2005).

So the first lesson of our Theoria will be about – while at the business of zero-levels I might as well throw yet another one in – the zero-level-of-psychology. For if psychologists complain that ethical research guidelines threaten to make psychology impossible, is not this fear for the end of psychology foremost a defensive reaction against a zero-level-of-psychology? If the already mentioned Arthur G. Miller acknowledges that there have been times when he has wondered, just for a moment, if the Milgram experiments perhaps mean nothing at all (cited in Parker*, 2000: 121) then we have to replace the signifier experiment by the signifier psychology: what today’s mainstream psychology has to contend with is this feeling that it perhaps means nothing at all. The problem with psychology however is that it keeps reinventing itself (pretty much like capitalism) there will always be people like Miller who, knowing that it actually means nothing at all, will still keep propagating it.

**Epilogue**

It is not until very recently that the Milgram experiment was replicated by Jerry Burger: even though almost using the same set-up he did manage to get past the so called Institutional Review Board (the ethical committee of universities in the USA). In order to get a green light Burger had to made the experiment stress and trauma-free. He did this in three ways: first by providing a thorough multi-faceted screening of the participants, second, by
making sure that the subjects understood that they could step out at any time of the experiment, and last, by calling the experiment invariably to a halt at the 150 V level. At that level, just as in the original Milgram experiment, the learner for the first time explicitly protests and asks to get released. Burger then assesses if the participant would continue or not and then stops the experiment. Departing from the statistics of Milgram’s results, Burger argues that of the people who are willing to continue past 150V, 79 percent would go all the way to the end of the shock generator (Burger, 2009). George Miller, who is altogether sympathetic to this attempt to replicate Milgram, nevertheless remains sceptic, pointing to the fact that the Milgram experiment explicitly relied on the emotional stress and the inner conflicts which Burger tried to eliminate (Miller, 2009). And maybe Miller is right: you cannot take the sting out of the bee and expect that it will keep on flying: Milgram Lite (in the expression of Elms, 2009) does not work, the element of transgression is essential to Milgram’s experiment. Just consider what Brewster Smith contended about the Milgram experiment:

For myself, I find it quite possible to justify a Milgram study, as a carefully weighed exception, an important study that raises serious ethical questions but can be undertaken with heavy ethical responsibility falling on the investigator’s shoulders. I wouldn’t do such a study, but I really respect Milgram’s right to have done it. (Brewster Smith in 1976, cited in Miller, 2009)

Is this not strikingly similar, almost word-for-word, to discussions on the issue of torture: it is a dirty job, but sometimes someone has to do it?
Bibliography


Milgram, S. (1981). This Week's Citation Classic. Current Contents. 9(March 2, 1981): 114


---

**Biographic Details:**

Jan De Vos has worked for several years as a clinical psychologist. Currently, he is a researcher at the Centre for Ethics and Value Inquiry (CEVI, Ghent University) and is preparing a PhD in philosophy on “Psychological Subjectivity in Late Modernity.” He has published several articles on psychologization. He has studied Lacanian psychoanalysis.

**Address for Correspondence:**

Centre for Ethics and Value Inquiry (CEVI)
Department of Philosophy & Moral Science
Ghent University
Blandijnberg 2, B-9000 Gent. Belgium
+32 (0)9 264 39 75
JanR.DeVos@ugent.be