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Emotional Seesaw, Compliance, and Mindlessness

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Research on emotion conducted so far has ignored situations where the subject experiences a certain emotion, but where the external stimulus that evoked and upholds this emotion suddenly disappears. This kind of situation, however, is relatively common in everyday life. This article attempts to recognize certain consequences of those conditions under which the stimuli justifying our experience of such emotional states as fear or joy suddenly disappear. Research done to date by the author and colleagues indicates increased compliance of the subject when addressed with various requests, commands, or suggestions in the situation termed here "emotional seesaw." The classical "live" example that illustrates this principle is the type of "good cop–bad cop" interrogation procedure. The probable mechanism underlying increased compliance under these conditions is connected with the fact that every emotion generates its own specific behavior program. When this program suddenly proves to be totally inadequate to new, modified external circumstances, the subject begins functioning "mindlessly." This permits automatic reactions, which take no account for the peculiarity of the current situation. Another group of experiments presented in this article shows that the subject's cognitive functioning is disturbed under emotional seesaw conditions. Such a disturbance embraces not only simple cognitive operations like detection of facial expressions of emotion, but also more complex operations like arithmetical calculations done mentally. The article concludes that further research is needed regarding the consequences of sudden and unexpected withdrawal of stimuli that induce and uphold various emotions.

Keywords: Social influence, compliance, fear-then-relief, mindlessness, emotional seesaw.

In the experimental research of emotion dynamics, it is nearly always assumed—although very seldom stated—that an emotion appears, quickly reaches its peak intensity, and then gradually subsides. This decline of emotion is natural and undisturbed by any external factor. For example, psychologists describe widows' mourning for their dead husbands by analyzing the long-lasting process of the their adjustment to the new diametrically opposite situation (Shontz, 1975); or they describe the dynamics of fear felt by inexperienced amateur parachutists upon being informed of the date of their jumps as compared to routine parachutists (Epstein & Fenz, 1965). This kind of research is undoubtedly invaluable, as it enables us to come considerably closer to an understanding of the origins of emotion, its development, and the regulating role of the emotional processes. It seems, though, that psychology has not paid enough attention so far to the situation in which the stimulus evoking a certain emotion is followed by another stimulus that removes the cognitive justification for having experienced the former emotion. Let us imagine, for example, the situation of a man who regularly takes part in a lottery. While watching TV in the afternoon he learns that the numbers he always chooses are the winning ones. Undoubtedly, he experiences great joy. However, when his wife returns home it turns out that this time she forgot to bet the lucky combination at the lottery agency. It is easy to expect that the husband's joy will cease immediately, and most probably he will become angry or depressed. Another example could be the case of a woman returning home alone late at night.

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When she notices a massively-built man following her, she becomes anxious. But when she suddenly recognizes that he is one of her good friends, she immediately feels deeply relieved.

In both these situations it is easy for us to predict the type—as well as the sequential order—of emotions that the subjects experience.

However, another relevant question appears: What are the consequences of persons experiencing such seesawing emotions? What is the impact of this specific emotional state on their cognitive functions (like making decisions, solving problems, controlling attention processes) and social functions (e. g., affiliation tendencies, aggressiveness, or altruism)? Although the state of sudden stimulus withdrawal which has induced and upheld the given emotion occurs in everyday situations relatively often, our current knowledge of the psychology of emotion allows only for rather careful hypotheses rather than provide precise answers documented by research results.

Together with Richard Nawrat (Dolinski & Nawrat, 1998) we worked on cases of people who were frightened and had suddenly experienced a situation that removed the stimulus of fear. A popular example of this type of situation is the "good cop–bad cop" interrogation procedure. As presented in crime literature and films, the subject is first brutally mistreated by one policeman—threatened with death, yelled at, and humiliated. Then all of a sudden everything changes. A telephone rings and the "bad" policeman leaves the room. Another policeman comes in—he is calm and pleasant, suggests having coffee and a cigarette, and leads a relatively normal conversation. In films and books, most often the subject, so far having refused to cooperate, starts to reveal everything and everyone. The police interrogation case is only a specific example of a more general rule. Perhaps the sudden withdrawal of fear makes people more compliant to various requests and suggestions. We decided to test this assumption in a series of experiments.

Fear-Then-Relief and Compliance

Imagine the following situation:

> We are crossing the street in a random place and when we are half way over the road we hear the sound of a police whistle. Of course, we become frightened. We experience a similar emotion when we have parked our car in a no-parking area and upon returning to the car we notice a small piece of paper sticking out from under the windscreen wiper. However, what happen if we turn around and see that it isn't a policeman but someone whistling at us—and it isn't a police ticket under the wiper, but ad for a hair-growth stimulating shampoo or an appeal to become a blood-donor? *We experience sudden relief.* These two situations, then, have something in common with that of the man interrogated by the two policemen.

We created this type of situation in our experiments. In the first one (Dolinski & Nawrat, 1998, Exp. 1), the participants were jaywalkers. In some of the cases, when the participant was in the middle of the road, a police whistle was used. The participants reflexively turned their heads toward the sound, but it turned out there were no policemen on the sidewalk behind them. The rest of the participants were allowed to cross the street undisturbed. In the experiment schedule, there was also a third group of participants who did not cross the street but only walked along the sidewalk. All participants were next spoken to by a confederate who asked them to fill in a psychological questionnaire and announced it would take only 10 minutes. It should be noted that the experiment was conducted on a cold autumn day, and it was not possible for participants to fill in the questionnaire later at home, but had to complete it on the spot.

The questionnaire the participants were asked to fill in was the Self-Description Inventory (Spielberger, Gorsuch, & Lushene, 1970), which enabled us to measure the current status of the participant's fear. It turned out that, although the level of fear was similar in all experimental conditions, the participants who experienced fear-then-relief more frequently agreed to fill in the questionnaire (see Table 1) than did the participants in the other groups.

In the second experiment (Dolinski & Nawrat, 1998, Exp. 2), the participants were car drivers who had parked their vehicles in a no-parking zone. We placed small pieces of paper which looked just like police tickets under the wipers of their cars. When the drivers re-

Table 1
Participants who consented to fill in the questionnaire (%) and the mean indexes of anxiety in particular groups.

	Participants who complied (%)	Level of anxiety
Jaywalkers with whistle	59	43.34
Jaywalkers	46	42.03
Walking along the sidewalk	41	41.97

Table 2
Participants who complied with the request (%).

Behind a wiper/Advert for Vitapan	56
Behind a wiper/Appeal for blood donation	68
Car door/Advert for Vitapan	34
Car door/Appeal for blood donation	40
Control (no card)	36

turned to their cars and read the pieces of paper, it turned out that these were ads for Vitapan—a revolutionary (but nonexistent) shampoo stimulating hair growth; or alternatively an appeal for a blood donation. In a different experimental condition, we used adhesive tape to stick the same pieces of paper to car doors. Police never stick parking tickets to car doors; so the participants in this experimental group had no reason to become frightened. In this experiment, there was also an additional control group: owners of cars on which we did not place any pieces of paper.

When the drivers participating in the experiment were about to drive off, they were approached by the confederate who introduced himself as a student completing material for a master's thesis and asked whether the participant would fill in a questionnaire on how to make the city traffic more efficient. He added that the questionnaire would take about 15 minutes to complete. We treated the participant's consent to fill in the questionnaire as an indicator of compliance. As seen in Table 2, participants who experienced fear-then-relief considerably more often consented to take up the questionnaire than did the participants in the other experimental groups.

In further experiments, we managed to demonstrate that this kind of compliance to requests resulted not from the fear participants had just experienced (we introduced a group where participants received a real police ticket for parking in a restricted area), nor from any positive emotions connected with the state of relief (we measured the degree of experienced positive emotions in each experimental condition). Hence, in a specific situation where we experience fear followed by relief, we become generally more compliant to requests and commands addressed to us.

Why should it be like this, though? Every emotion we experience starts up a specific action program uniquely designed for this emotion (e. g., Frijda, 1986; Oatley & Jenkins, 1996). The feeling of happiness, for example, appears as a result of the subject's achievement of a certain subtarget within a broader action, which in turn starts up a program of following this plan of action and, if necessary, modifying it. Sorrow appears when an important intention has not been realized or when the current target is lost, and the action plan it starts up is usually based on passiveness, or making up a new plan, or seeking help. Anger results from frustration at being unable to achieve the target, and its consequences can be the intensification of attempts to reach the target, or aggressiveness. Contempt usually appears when the subject meets a person belonging to a social group that the subject does not accept and regards as worthless. The program which is launched by this emotion is usually mistreatment of such a person.

The emotion of fear, which is the focus of this article, launches reactions aimed at stopping all current actions and at the same time increasing cautiousness toward external surroundings, to stand still, or to run away (e. g., Denny, 1991; Tomkins, 1991; Tuma & Maser, 1985). Because in most cases fear appears when the subject is endangered, or the targets the subject aims at are in conflict, these kinds of reaction are usually adequate. However, in a specific situation where the sources of fear suddenly retreat or disappear, the action program launched by fear ceases to be adequate for the changed circumstances. A new program adequate to the situation has not yet been started, and one finds oneself in a very specific (and probably short-lasting) state of a "break between programs." Fulfillment of one program has just been suspended because the stimulus justifying the emotion of fear has disappeared, and a new program suitable to the new situation has not yet been coined. We may assume that, when temporarily *no* program controls the subject's actions, such a condition will force the subject to act automatically and use readily available behavioral models (scripts) assimilated in the past. Consequently, it may also be assumed that under a fear-then-relief condition people will function "mindlessly." The results of the experiments already discussed above were in agreement with these assumptions.

Fear-Then-Relief and Mindlessness

"Mindless" behavior, which has been easily observed in a wide variety of social situations (Langer, 1989a), occurs as a result of conscious attention to a subset of contextual cues (Langer, 1992). These cues trigger various scripts, labels, and expectations, which in turn focus the attention on certain information while diverting it from other

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Table 3
People who offered money (%), mean amount of money given, and the tendency to seek additional information under each experimental condition.

Indexes	Jaywalkers with whistle			Jaywalkers		
	Request only	Placebo info	Real info	Request only	Placebo info	Real info
Participants offering money spontaneously (without asking any questions) (%)	38.7 *a*	76.0 *b*	71.9 *b*	11.3 *c*	15.1 *c*	58.5 *b*
Mean amount of money given (in Polish zloty)	.80 *a*	1.65 *b*	1.48 *b*	.31 *c*	.55 *a,c*	1.53 *b*
Percentage of participants asking for additional information	20 *a*	8 *b*	–	49 *c*	57 *c*	–

Note: Means that do not share a common subscript (a, b, c) differ within one row at $p < .05$.

information. Rather than actively constructing categories and distinctions based on relevant features of the situation, people responding "mindlessly" by prematurely committing to overly simplistic scripts drawn in the past.

It is usually assumed that people are commonly put in a state of mindlessness by a routine situation that has repeatedly occurred in the past and one that is accompanied by a low level of physiological excitement (Langer, 1989b; Langer & Moldoveanu, 2000). We assume here that a similar state can also be evoked by a sudden and unexpected increase of excitement followed by an equally sudden withdrawal of the emotion stimulus. This evocation can also occur in the situation of the fear-then-relief sequence.

In one of our experiments (Dolinski & Nawrat, 1998, Exp. 5), we applied the same paradigm described earlier—a police whistle used against jaywalkers. This time, however, the confederate did not ask the participants to fill in a questionnaire, but presented a money-box and asked them for a donation. Similarly, as in the original experiment by Langer and colleagues (Langer, Blank, & Chanowitz, 1978), the confederate either formulated the request without explanation (*"Madam/Sir, would you please give us some money?"*), or the request accompanied by a placebic justification (*"Madam/Sir, we are collecting money. Would you please give us some money because we have to collect as much money as possible?"*), or the same request with realistic justification (*"Madam/Sir, we are members of the 'Students for the Handicapped' organization. Would you please join our charity action because we have to collect as much money as possible to cover the cost of a holiday camp for mentally handicapped children?"*). What resulted was that in the emotionally neutral conditions (when participants were not disturbed by the whistle while jaywalking), persons behaved in a rational and thoughtful manner. They hardly ever decided to drop money into the box when the request was not accompanied by any justification or when the justification was placebic, and frequently made donations when it was explained who collects the money and for what purpose. The participants who found themselves in the fear-then-relief conditions reacted quite differently: It was enough to equip the request with the placebic justification to increase their inclination to reach for their wallets, in comparison to the condition when no justification for the request was provided (see Table 3).

It also turned out that under the emotional seesaw conditions persons who were approached with a weird message (e. g., a request with placebic justification) hardly ever asked any questions about the aim and the organization behind the action. However, asking such questions was common among neutral emotional-state participants.

This structure of results, when it comes both to the frequency of compliance with the request, and to the verbal expression of the participants' doubts, is then quite congruent with the assumption that fear-then-relief conditions introduce people into a state of mindlessness, which in turn promotes compliance.

We also received confirmation of these dependencies in another of our experiments. In this study we introduced additional experimental groups who experienced positive or negative emotions as well as a group

Table 4
Participants who agreed to put the receiver to their other ear (%).

Conditions	Initially induced emotion	
	Positive	Negative
Emotional seesaw (sudden withdrawal of sources of emotion)	40	47
No emotional seesaw (sources of emotion still present)	27	17
Control group	10	

that first had experienced joy, only to learn there were no reasons for this joy (Nawrat & Dolinski, 2000, Exp. 3). This experiment was performed by phone. The confederate phoned randomly chosen persons introducing herself as the employee of Polish Telecom. In some of the experimental conditions, she informed the interlocutor that the computer calculated an overpayment in his or her account, and that he or she would soon receive a return of a considerable sum of money (induction of positive emotion); other participants were told that the computer calculated a considerable overdue sum of money to be paid by the participant soon. Half of the participants were left in this induced emotional state; the other half were then asked by the confederate to confirm their addresses, *"just to make sure there is no mistake,"* and after a short while were told that the computer had meant another telephone owner with the same name but a different address. Regardless of the type of manipulation, the confederate then said, *"Polish Telecom is presently testing the permeability of the telephone lines. In connection with the introduction of the TELPOCOL system, I would like you to put the receiver of your telephone to your other ear ..."* After three seconds she asked, *"Have you now done that?"*

In the control group, where no emotional state was induced, this message was presented right after the confederate introduced herself as the employee of Polish Telecom.

The participants' confirmation that they had put the receiver to their other ear was treated as mindless compliance to an absurd request. While such a reaction sporadically occurred in the control group as well as in the groups where only positive or negative emotion was induced, it was considerably more common (statistically significant) in those conditions where information justifying negative emotions had been suddenly withdrawn, or where the source of positive emotions had been withdrawn (see Table 4).

The structure of the results from this experiment suggests that compliance can be increased by a sudden withdrawal of the source of not only fear, but also other—positive—emotions. This finding agrees with our theoretical interpretation presented earlier, based on the assumption that the key role in the phenomenon analyzed in this study is that of the inadequacy of the action program launched by the first emotion in the new external situation. This interpretation does not assume that the emotion launching the program must necessarily be fear.

Before we return to the theme of mindlessness, let us consider two other experiments designed to test the consequences of the sudden and unexpected withdrawal of positive emotions.

Happiness-Then-Disappointment

Let us imagine ourselves walking down a sidewalk when we suddenly see a slightly crumpled banknote lying there. We bend down and pick it up with the feeling of joy, grateful for this unexpected stroke of good luck. When we turn the banknote over and look at its back, we see there a slogan advertising a car-wash. What we thought was a banknote turns out to be a promotional leaflet! The emotional state we most probably experience now is disappointment. This is the sort of situation we created in our experiment (Nawrat & Dolinski, 2000, Exp. 1). The participants were passers-by who picked up a banknote-like promotional leaflet. Several seconds later, a young woman standing nearby with a large piece of luggage approached them. She explained that she wanted to drop in for a while to see her friend who lived on the fourth floor in the building nearby. The bag was very heavy and there was no sense in dragging it up to the fourth floor. Would the passer-by be so kind as to take care of the bag for a couple of minutes? The same question was addressed to participants in the control group—who had not found anything resembling a banknote while walking down the sidewalk. It turned out that in the experimental conditions 52.5% of the participants agreed to take care of the bag, while in the control group only 27.5% were willing.

Increased compliance after having experienced a disappointment that had replaced sudden joy was also the result obtained in a quite different study. In this experiment we used the situation where adult students of

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Table 5
Mean number of days of voluntary work declared.

Conditions	Initially induced emotion	
	Positive	Negative
Emotional seesaw (sudden withdrawal of sources of emotion)	2.06	3.06
No emotional seesaw (sources of emotion still present)	1.60	1.33
Control group	1.20	

a supplementary education college had just written a test. They were to learn about the results of the test during individual consultations with the teacher. Some of them were simply told the truth, regardless of whether or not they had received a very good mark. Others were at first told a lie, but immediately afterward were told by the teacher that he had been mistaken. He then informed the adult student about the actual result (a very good mark or not so good). There was also a control group consisting of people who did not write the test at all. Participants were next asked to take part in volunteer work on the college premises and to declare how many days they could spare for this. The analysis of the obtained results indicated that participants who experienced emotional seesaw (regardless of its type) were afterwards more compliant to the request than were participants who had experienced the induced simple emotion or the control-group participants. Detailed results of this experiment are presented in Table 5.

As we can see, the sudden withdrawal of negative as well as positive emotions leads to a similar effect: increased compliance of the subject to requests and commands. This is the reason why we have proposed the term *emotional seesaw* for all types of this phenomenon. The term underscores the point that the main feature of such situations is the specific dynamics of emotion resulting from the withdrawal of the stimulus that justified the experience of that emotion in the first place.

If mindlessness underlies increased compliance in such conditions (which is indicated by the results of the experiments presented in the previous section), then this compliance should decrease when the subject is forced to resume mindful functioning. But is this the case? Our next experiments were designed to answer this question.

Emotional Seesaw, Mindfulness, and Resistance to Appeals for Compliance

In the first of the experiments to verify the assumption that forcing people back to a state of mindfulness—under the conditions we propose—should reduce their compliance, we created a state of emotional seesaw by suddenly grabbing a person coming out of Fair Hall in Wroclaw by his or her shoulder (Dolinski, Ciszek, Godlewski, & Zawadzki, 2000, Exp. 1). When the person turned round in astonishment, he or she noticed a blind man (with a white stick and dark glasses). In some of the conditions, the blind man said only: *"Oh, excuse me."* In other conditions, he added, *"How much time is left till [. . .] o'clock?"* specifying a time about three and a half hours later. The participants in this group usually looked at their watches and calculated the time left till the stated deadline. We assumed that this activity demanded certain cognitive activity. As a result of this activity, the subject's cognitive functioning should shift from the mindless to the mindful level.

After leaving the "blind" man, the participant was allowed to walk for a few meters and then was accosted by another confederate who asked him or her to spare five minutes to fill in a questionnaire. This request was also addressed to participants in the control group, who did not meet the blind man. It turned out that the proportion of people who complied with the request was identical in both the control group and the group forced to mindfulness (30%). Participants who experienced emotional seesawing but were not made to return to mindfulness considerably more often agreed to fill in the questionnaire (53%). Hence, mindlessness connected with the experience of emotional seesawing turns out to be a necessary condition of increased compliance.

A similar structure of results was obtained in another experiment, where mindfulness of participants was induced in a different way (Dolinski, Ciszek, Godlewski, & Zawadzki, 2000, Exp. 2). This time the "blind" man asked, *"Excuse me, is that you?"* We assumed that to answer this unusual question, participants would have to think why the stranger could possibly suppose he knew them and to explain to him that probably they were not the person he was looking for. This activity should provoke the participants to function on the mindful level. As in the previous experiment, we assumed that those participants would not be specifically compliant to any requests they might be addressed with. The results confirmed our assumptions. It turned out that the partici-

pants placed in this experimental group agreed to fulfill the subsequent request more or less equally as often (17%) as the participants in the control group (27%—differences statistically nonsignificant). It turned out again that participants placed in the emotional seesaw conditions and not made to return to mindfulness agreed to fill in the questionnaire much more frequently (43%).

The obtained results seem to form a coherent picture. Sudden and unexpected relief while people experience fear leads them to mindlessness. The state of mindlessness in turn induces increased compliance. Accepting this conclusion, we decided to get a closer look at the cognitive functioning of people in the emotional seesaw conditions.

Deficits of Cognitive Resources

The cognitive functioning of people who experience relief when a stimulus-inducing fear suddenly disappears should be less efficient. However, it is difficult to assume *a priori* what kind of tasks could reveal such cognitive deficits. In the first of the experiments designed to investigate this question (Dolinski, Ciszek, Godlewski & Zawadzki, 2000, Exp. 3), we wanted to check whether the emotional state analyzed here had any impact on the speed and accuracy of emotion expression perception.

This study was conducted in a laboratory. Participants came individually to the Psychology Institute, for *"the measurement of various abilities and skills."* Part of them were told that the test would measure visual-motor coordination. They would throw darts at a target. Another group was told that their learning abilities would be tested, and for every mistake in the test they would be punished by a slight electrical shock. In the third group, participants were told that in the learning ability test they would be punished by electrical shocks for their mistakes, but shortly after that it "turned out" that the professor in charge of the laboratory work wanted them to take part in the visual-motor coordination test instead, and that there would be no electrical shocks. Regardless of the type of experimental manipulation applied, all participants were next asked—before the "proper" test was to start—to take part in a short test of perception of facial expressions of emotion. This experiment was based on the original experiment by Hansen and Hansen (1988). Each participant was shown a table of 72 photographs of the same face (six rows of 12 pictures). There were 71 photos of a smiling face, among which there was one photo of a frightened face (in another experimental group, there were 71 frightened faces and 1 smiling face). It turned out that in the emotional seesaw conditions, participants needed more time to find the "different" face than was needed in the remaining two experimental conditions (i. e., the fear group and the control group)—see Table 6.

Table 6
Mean time (seconds) needed to find the different face.

Conditions:	Terrified face among smiling faces	Smiling face among terrified faces
Fear	13.50 *a*	13.75 *a*
Fear then relief	20.25 *c*	16.62 *b*
Neutral emot. state	12.65 *a*	12.62 *a*

Note: Means that do not share a common subscript (a, b, c) differ at $p < .05$.

The results we obtained in this experiment indicated that the state of emotional seesaw does affect simple perception functions connected with the speed of emotion expression detection.

Certainly research has documented that the human perceptual system is highly practiced, if not hard-wired, to detect human faces (Hansen & Hansen, 1988; Homa, Haver, & Schwartz, 1976; Purcell & Stewart, 1986). Accurate and quick perception of emotion expression in other people's faces is for most people, including small children, an easy task (Barrera & Maurer, 1981; LaBarbera, Izard, Vietze, & Parisi, 1976; Schwartz, Izard, & Ansul, 1985). From this vantage point it seems rather strange that the emotional seesaw state should impair an elementary ability. Why is it so? The interpretation we propose here refers to certain data of the conditions of emotion expression detection.

Numerous research results show that people have a tendency for biased perception of other people's emotion when they themselves are currently experiencing the same emotion (e. g., Feshbach & Feshbach, 1963; Niedenthal, Halberstadt, Margolin, & Innes-Ker, 2000; Schiffenbauer, 1974). This can be treated in terms of priming: Our own emotional state facilitates our perception of the same emotional state of other people and our readiness for specific interpretation of objectively ambiguous signals (e. g., making faces, or the color of one's skin). In the emotional seesaw conditions however, we have a conflict: On the one hand, there is priming by the initially induced emotion; and on the other hand, there is priming with the emotional state resulting from the sudden withdrawal of the source of the former emotion.

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This conflict can be responsible for the prolongation of the time needed to recognize the emotion expression. This is merely a hypothesis requiring separate empirical research, but the question has to be asked whether the negative impact of emotional seesaw on cognitive efficiency might not be limited to the specific case discussed above.

To challenge this question, we conducted another experiment (Dolinski, Ciszek, Godlewski, & Zawadzki, 2000, Exp. 4) where we applied emotion manipulation analogous to the previous experiment, but afterwards set a different task that was cognitively much more complex and had nothing to do with emotions. This time the participants were to add and subtract mentally the lines of three two-digit numbers (e. g., 27 + 58 – 17 = . . .). It turned out that the emotional-seesaw participants managed to solve fewer tasks (average 16.8) than the fear-group participants (19.1) and the control-group participants (19.4).

The results obtained indicate that under emotional seesaw cognitive processes are impaired. This seems to apply both to simple perception processes and more complex arithmetical operations. But why does the specific emotional state analyzed in this article lead to cognitive deficiencies? There seem to be at least two competing interpretations of this effect.

First, the state of emotional seesaw can incline persons to think retrospectively about what has just happened and/or what could have happened. Both concentration on the past and counterfactual thinking can cause a deficiency of cognitive resources left for solving current tasks. The shortage of cognitive deficiencies that could be engaged in the analysis of the current situation makes the subject respond to external stimuli in an automatic and mindless manner.

Second, it is possible that in the state of emotional seesaw the subject's cognitive system, having detected the inadequacy of the action program activated by the emotion of fear for the new external circumstances, engages the cognitive resources to reconstitute a balance between the state of the subject's organism and the current situation. If so, the cognitive resources would be oriented toward finding the quickest possible ways to extinguish the inadequate program and to launch an alternative program.

It is worth stressing that these two interpretations have one feature in common. Psychologists agree that in many social situations people tend to react automatically. The range of information that people are normally able to process as well as the depth of data analysis are limited, thus reducing cognitive activity (see especially Bargh, 1997; Bargh & Chartrand, 1999; Bargh, Chen & Burrows, 1996). At the same time, however, psychologists cannot agree as to whether these effects are mainly caused by the inherently limited ability of the human brain (e. g., Posner & Snyder, 1975; Taylor, 1981) or because of motivational deficits (e. g., Neisser, 1976; Navon, 1984). Though we have no aspiration to solve this dilemma as far as the general functioning of a human being is concerned, we nevertheless assume that, in the specific state of emotional seesaw, mindlessness occurs not because of motivational deficits, but because of limited cognitive resources.

A typical example of emotional seesaw seems to be the situation familiar to probably every car driver: Directly after avoiding a very dangerous traffic situation (say, just barely avoiding hitting an old lady who has walked straight into a busy road), drivers tend to make "silly" mistakes. This is not so much because such drivers not longer care to be cautious (which would be a motivational deficit), but because in this very moment they are not *able* to remain fully cautious (which probably results from cognitive resources deficits). Similarly, a man interrogated by a bad cop and then by a good one starts to own up not because he no longer wants to function mindfully, but because he is not able to remain mindful.

Langer, Blank, and Chanowitz (1978) prefer the motivational approach to the phenomenon of mindlessness. They assume that people start to function mindfully whenever remaining in the state of mindlessness would be too costly for them. Participants in their experiment are persons queuing for the photocopy machine. An confederate approaches them and asks to be let to use the copier without waiting for his turn. When he says he has five pages to copy, any kind of justification for this request turns out to be enough to obtain the participants' consent to his request more frequently than in the conditions when he formulates request without explanation. Also, it is not important here whether the justification is realistic in character (confederate explains he is in a hurry), or apparently placebic (confederate explains he just wants to copy the pages, which is obvious in itself and does not actually explain his request). However, when he announces he has 20 pages to copy, then only a realistic justification of the request will increase his chance of getting to the copier without having to wait in line. In the condition of the placebic justification his being allowed to cut in front of everybody occurred as rarely as in the "request-only" condition. The participants, then, behaved mindlessly when the cost of staying mindless was low (copying five pages lasts a few

moments, which is not a great loss), but shifted their functioning into the thoughtful mode when mindlessness could be too costly (copying 20 pages takes some time).

It is worth noting that both in our series of experimental situations—and in the cases of the drivers who have just miraculously avoided an accident or suspects interrogated first by a bad cop and then a good one—people have a lot to lose. Consequently, according to Langer and colleagues, they should be highly motivated to avoid mindlessness and to shift their functioning to the thoughtful level. Apparently, though, they do not do this. What does this mean?

Despite the fact that the state of persons having just experienced emotional seesawing largely resembles the state of mindlessness described by Langer and colleagues, it seems that their origins are quite different. Mindlessness occurring in routine and recurrent situations can result mostly from the lack of motivation to function mindfully. On the other hand, the outcome of a sudden withdrawal of the sources of a subject's emotion (i. e., the situation analyzed in this paper), seems to be caused by a deficit of cognitive resources.

Concluding Remarks

The series of experiments presented above seem to reveal a conclusive picture. The state of emotional seesaw induces a subject's mindlessness, which in turn inclines the subject to be compliant. Some further questions appear, however. First, it is not known *how long* the state of mindlessness lasts, or *how long* the subject remains increasingly compliant; neither is it clear whether this time is equal for different emotions. Second, as already pointed out earlier, it is not known *why* the cognitive processes become impaired. The empirical data collected so far is not sufficient to indicate which of the interpretations presented above, which refer to different types of limitations of the human brain, is the right one. Third, we do not know if, after some kind of training, people would be able to "handle" the state of emotional seesaw by themselves and shift their functioning back to the mindful level; or whether it would be rather necessary for them to have to be induced to this kind of switch by some external factor. This is, of course, just the selection of the most urgent of the questions that cannot yet be answered.

However, it is possible to approach the problem analyzed in this article from another, much broader perspective. As already mentioned in the introduction, situations in which stimuli inducing and upholding human emotions suddenly disappear are quite common in everyday life. However, psychology does not challenge this problem very often. This is confirmed by a close study of the classic psychological monographs on emotion (e. g., Dunbar, 1954; Izard, 1971; Reymert, 1950), as well as by those that have appeared more recently (e. g., Clark, 1992a, 1992b; Ekman & Davidson, 1994; Lewis & Haviland, 1993; Oatley & Jenkins, 1996).

There are also other interesting types of consequences of sudden withdrawal of the source of people's emotions which we have not yet tackled in our experiments. One could ask, for instance, what the consequences are of emotional seesaw on other kinds of social behavior (e. g., spontaneous altruistic activities, aggression, cooperation, or competition) and for social opinions (e. g., stereotyped thinking, risk estimation, or impression formation). It has long been known that emotions experienced by persons do have a relevant impact on all of these social phenomena (e. g., Clark, 1992a, 1992b; Frijda, 1986; Oatley & Jenkins, 1996). It is not known, however, whether the sudden withdrawal of the sources of experienced emotion leads to other specific consequences than those analyzed so far.

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