

**System justification among the disadvantaged:
Do disadvantaged students display stronger justification of the governmental-,
educational-, and university system than the advantaged?**

Wissenschaftliche Arbeit
zur Erlangung des akademischen Grades
„Bachelor of Science“ (B.Sc.)
im Fachbereich Psychologie
der Universität Konstanz

Vorgelegt von:

Paul-Simon Zerbe

Matrikel Nr. 01/679961

Erstgutachter: Professor Dr. Peter M. Gollwitzer
Zweitgutachter: PD Dr. Anja Achtziger

Konstanz, den 27. September 2010

Contents

1.	Introduction.....	1
2.	Theoretical and Empirical Background	2
2.1.	Social Identity Theory.....	2
2.2.	Just World Theory	3
2.3.	Cognitive Dissonance Theory	4
2.4.	System Justification Theory.....	5
2.4.1.	System Justification as a Motivation.....	6
2.4.2.	System Justification as a Cognitive Process	7
2.4.3.	Ego, Group and System Justification.....	8
2.4.4.	System Justification Among the Disadvantaged	9
2.4.5.	Boundary Conditions for Enhanced System Justification Among the Disadvantaged.....	11
3.	Hypotheses.....	12
4.	Method.....	14
4.1.	Design.....	14
4.2.	Questionnaire.....	15
4.2.1.	Manipulation	15
4.2.2.	Dependent Variable	16
4.2.3.	Control Variables.....	17
4.2.4.	Cover Story	17
4.2.5.	Final Questionnaire	18
4.3.	Participants.....	18
4.4.	Procedure	19
5.	Results	19
5.1.	Construction and Control of Theoretical Constructs	19
5.2.	Order of Presentation Effects.....	20
5.3.	Analysing the Hypotheses	21
5.3.1.	Multivariate Analysis of Variance.....	21
5.3.2.	Self-Identification as a Control Variable	22
5.3.3.	Self-Identification as a Factor.....	23

5.4.	Analysis of other Control Variables.....	25
5.4.1.	Meritocratic Belief.....	25
5.4.2.	Feasibility and Desirability of Improvement	25
5.4.3.	Volition	25
6.	Discussion.....	26
6.1.	Theoretical Constructs	26
6.2.	Order of Presentation	26
6.3.	Hypotheses.....	26
6.3.1.	Hypothesis 1	27
6.3.2.	Hypothesis 2	27
6.3.3.	Hypothesis 3	28
6.4.	Control Variables.....	28
6.4.1.	Meritocratic Belief.....	28
6.4.2.	Belief in Feasibility.....	28
6.4.3.	Volition	29
6.5.	Conclusion	29
7.	Abstract	31
8.	References.....	32
9.	Appendix.....	37
9.1.	Introduction.....	37
9.2.	Questionnaire – Part A	38
9.2.1.	Self-Identification Scale.....	38
9.2.2.	Other Control Variables.....	42
9.3.	Questionnaire – Part B	45
9.3.1.	Experimental Group	45
9.3.2.	Control Group.....	47
9.4.	Questionnaire – Part C	49
9.4.1.	System Justification Scales – Order: 1,2,3.....	49
9.4.2.	Final Questionnaire	52

1. Introduction

There have been revolutions, there has been societal change, but there have also been systems of discrimination and oppression that lasted for many years in which some people have been, even sometimes systematically, disadvantaged while others have held privileges and benefits. The following question has to be asked in this context:

Why do people so often tolerate inequality and discrimination?

It has often been asked by historians referring to different ages and different systems, for example to the institution of slavery in America and Europe, the apartheid in Africa, the caste system in India, the Third Reich in Germany, or the Soviet Union in Russia.

It was Max Horkheimer, the German philosopher-sociologist and member of the “Frankfurt School” of social research, who was among the first to answer this question. In an early work that laid the foundation of the Critical Theory (1937) he proposed how the thinking of man is connected with his experience and work in the society:

“As in the young history every individual is challenged to adopt the purpose of the whole as one’s own and recognise this purpose in the whole again, the possibility is obvious, that the [...] direction of the societal work process [...] will be included in one’s awareness and will be seen as an own goal.” He further proposed that this process will create a reality that can enslave people increasingly.

As you compare this statement to empirical research that was done decades later by Jost et al. (1994), you will notice that Horkheimer in this early year described a process that is now known as *rationalisation of the status quo*, which is a form of *system justification*. The theoretical construct of system justification as the tendency to see social and economical differences as fair, legitimate, necessary and even sometimes as inevitable will be the key element of the present work.

You may ask whether this construct that was inspired by historical systems is relevant for the world we are living in now. Looking upon Germany you will see that even in our time and even in developed countries you find discrimination and disadvantage that would be worth to be paid more attention to: For example the Federal Office of Statistics in Germany could show that the *Gender Pay Gap*, as the difference between average hourly earnings

between men and women, in Germany is in the year 2009 still 23%, what is even clearly beyond the European average. Besides that, the Third Record of Poverty and Wealth (2008) could demonstrate that the gap between rich and poor in Germany is even increasing. Also the educational system is not yet on a level of equal opportunities. As the OECD (2010) declares Germany is still one of the countries in which educational success is highly dependent on the parental level of education.

2. Theoretical and Empirical Background

2.1. Social Identity Theory

To trace the historical precedents that lead to system justification theory and to understand what is new about this theory, it is important to understand the basics of social identification theory.

The research that was primarily done by Tajfel & Turner (Tajfel, 1982; John C. Turner, Hogg, Oakes, Reicher, & Wetherell, 1987) focused on intergroup behaviour stressing ingroup favouritism and outgroup derogation. The underlying motive they propose for this kind of intergroup behavior is the need to enhance self-esteem. However to achieve the goal of enhanced self-esteem people can not only enhance their ingroup but also enhance their personal identity. In other words, people can boost their self-esteem through identification with a successful group or with own personal achievement. For this reason social identity theory introduced a differentiation between a *social identity* that is shared with other members of the ingroup and *personal identity* that is different from members of the ingroup. Note in this context that both, relying on social identity and relying on personal identity serves self interest (J. C. Turner, Brown, & Tajfel, 1979).

An important step done by social identity theorists that played a role for the development of the system justification theory was the linkage between patterns of intergroup relations and sociostructural variables like perceived legitimacy and stability of the system (Tajfel & Turner, 2004). This research was connected with a first effort to explain longstanding inequalities between groups. One key question that was arising from social identity theory in this context was how members of low-status groups try to overcome threatened identities that originate from their hierarchical position. This question can be phrased more

global: Why do people tolerate inequality even if they are among the disadvantaged? In this form it is also the key question of system justification theory. The reason given by Tajfel & Turner (1986) is that people find it difficult to imagine cognitive alternatives.

At this point the first difference between social identity theory and system justification theory becomes relevant, that is the assumption that another explanation to answer this question can be given, namely the tendency to justify and legitimise the existing status quo (Jost & Banaji, 1994). Besides that, from a system justification point of view the social identity approach relies to vehemently on identity-related and self-interest serving motives (Jost & Banaji, 1994). That is why instead of explaining the mechanisms of ingroup favouritism system justification theory stresses and tries to explain situations in which it comes to outgroup favouritism.

2.2. Just World Theory

From the field of justice research the just world theory provided another important step towards the direction of system justification theory. This approach proposes that people perceive and judge situations with account of a deep-seated motivation to believe that “people get what they deserve and deserve what they get”. Lerner (1980) gave this motivation a name: *Believe in a just world*. If we are now confronted with an act of injustice, our worldview of a just world is threatened and we will engage in effort to restore this worldview, for example by derogating the victim of injustice (Hafer, 2000). Lerner (1980) further argues that the belief in a just world is a strategy to reduce anxiety and uncertainty and therefore provides us with the illusion that we are secure and have control over the environment.

In this line Kay & Jost (2003) showed that economic inequality is justified not only by seeing the poor in charge for their situation but also by seeing them as happier and more honest than the rich. As you can see Kay & Jost as representatives of system justification theory support predictions of the just world approach. What is different about their point of view is that for the belief that the status quo is legitimate and necessary they consider a much broader set of causes and consequences (Jost & Hunyady, 2002). Furthermore, the system justification approach does not assume that the findings of just world research are caused by a deep-seated, genuine sympathy for justice, as it is increasingly assumed by researchers

in this area (Dalbert, 2001), but that there is a genuine desire to justify the existing status quo even if it does not reflect justice.

2.3. Cognitive Dissonance Theory

Another theory that is important to understand some predictions that are made by system justification theory is the theory of cognitive dissonance. It was first proposed by Leon Festinger (1957) and turned out to be one of the most provocative theories in social psychology.

The underlying motivation that leads to the predictions made by the cognitive dissonance theory, is the *desire for cognitive consistency*, a state of mind in which one's beliefs, attitudes, and behaviours are consistent with each other. If now a person engages in attitude-discrepant behaviour, there is an inconsistency arising between the person's attitude and the behaviour that does not reflect this attitude. This causes a state of physical tension that motivates people to reduce this unpleasant state. There are many possible ways to reduce this dissonance between one's behaviour and attitude such as changing attitudes or changing the perception of behaviour. Aronson (2000) gave an easy example of a situation, in which cognitive dissonance arises: Imagine you are smoking. On the other hand, you know that smoking causes cancer. The cognition that you are smoking is now inconsistent with your knowledge about smoking endangering your health. You can either stop smoking to reduce your dissonance, what is known as being very difficult, or you can try to convince yourself that smoking is not that bad, what is the easier and even the common way.

Further research on cognitive dissonance that was first summarized by Cooper & Fazio (1984) showed that for the appearance of dissonance certain conditions must be present.

The first condition is that attitude-discrepant behaviour must produce *negative consequences*. Second, to produce discomfort people must feel *personally responsible* for these negative consequences. This means, if people are forced to do something, it will not lead to dissonance and attitude change (Linder, Cooper, & Jones, 1967). The third necessary condition to produce cognitive dissonance is the emergence of *physical arousal*. Last, this physiological arousal has to be attributed to the prior behaviour. Only if all of these conditions are fulfilled, attitudes may be changed in order to reduce cognitive dissonance.

What makes the cognitive dissonance theory appealing to the system justification approach is the seeming contradiction to the classical assumptions of reinforcement theory, self interest and rational choice. As Festinger (1957) states the motive to maintain cognitive consistency can even give rise to irrational and maladaptive behaviour. Furthermore dissonance theorists conclude that in a state of suffering we do not only alter our attitudes to justify the suffering (Aronson & Mills, 1959), but also become more committed to this state of suffering (Wicklund & Brehm, 1976). All these claims conducted by dissonance theory point in the very same direction as the system justification approach.

But there are at least three differences (Jost & Hunyady, 2002) that are faced in the following lines: First, dissonance relies on preservation of cognitive consistency, while the system justification approach stresses motives to see the system as fair and legitimate, even if such beliefs actually create dissonance and ambivalence (Jost & Burgess, 2000). Second, cognitive dissonance stresses ego justification, what means that the reduction of dissonance is driven by the desire to maintain a positive image of the self fulfilled through acts of hypocrisy (Aronson, 1992). By contrast the system justification approach proposes that people reduce ideological dissonance driven by the desire to preserve a positive image of that system, fulfilled through legitimizing and defending the status quo, even if the positive self-image is suffering therefore. A third difference is that dissonance theorists state the condition of a feeling of personal responsibility for the situation as necessary for the emergence of dissonance and justification of that situation. On the other hand system justification theory proposes that people engage in justification of the status quo, even if they are not personally responsible for it (Kay, Jimenez, & Jost, 2002).

2.4. System Justification Theory

The frame of the system justification approach was already traced through encircling it with prior theories such as social identity-, cognitive dissonance-, and just world theory. Instead of pointing out what system justification theory is not, now there will be presented what system justification is, why it appears, and what kind of manifestations it can have.

Jost & Banaji (1994) were the first to propose the existence of a *system-justifying motive* causing people to see the existing social system as fair and legitimate, even sometimes at

the expense of personal and group interest. Therefore, to engage in system justification means to provide cognitive and ideological support for the existing social system.

If now the legitimacy, fairness or stability of the system is threatened, defensive ideological responses are evoked that lead people to an even stronger tendency to justify the system, for example with the use of stereotypes (Jost & Hunyady, 2002).

2.4.1. System Justification as a Motivation

The question arising at this point is: Why do people in general engage in system justification? Critics might say that system justification is just the observable behavioural consequence of people being compelled by authoritarians to comply with the status quo. This would mean that people are just forced to act in favour of the system, but do not really believe in it. But as Jost et al. have shown in several studies (Jost, Banaji, & Nosek, 2004) people really believe in the system as one that is fair, legitimate and desirable.

Not only to oppose those critics but also to trace the answer of the question that was asked, Jost et al. further propose that there is a motivation to engage in justifying the status quo. This motivation, they say, arises for several reasons (Jost & Hunyady, 2002).

One reason is the existence of an *epistemic and existential need* to manage uncertainty and threat. In its consequence it preserves a stable and predictable worldview and the perception of a safe environment. To give this statement a broader fundament, the following has to be recognized. Meta analytic research about political ideologies done by Jost et al. (Jost, Glaser, Kruglanski, & Sulloway, 2003) found that political conservatism was negatively linked to tolerance of uncertainty and positively linked to fear of threat. Recognizing the fact that political conservatism was at least in some studies measured with items including "acceptance of inequality" that are linked to system justification, it is very plausible that also system justification is driven by the named epistemic and existential motives to manage uncertainty and threat. The research that was recently done by Kay (2009), in which he independently manipulated system dependency, system inescapability, and system threat and after that found an increased tendency of system justification, further supported the idea that epistemic and existential needs plus motivation in general, play an important role in the emergence of system justification.

Another reason for the motivation to see the current status quo as most desirable, is people's general need to *conserve energy* and effort (Anderson, 2003). This means that people, who engage in justification of the status quo, even if it reflects inequality, do not have to put effort into changing something about it.

Furthermore, system justification is linked to individual differences in the *desire to believe in a just world* and to ideological motivation like self reported political conservatism or fair market ideology (Jost, Blount, Pfeffer, & Hunyady, 2003) what makes it even more likely to be also linked to a motivational process. A recent study done by Rutjens (2010) does not only stress the need for control, but also proposes that *the need for meaning* plays an important role in the emergence of society supporting tendencies.

Altogether it can be said that system justification helps us to cope with and adapt to unpleasant realities. Or as Jost and Hunyady (2002) put it: "System-justifying ideologies serve a palliative function in that they reduce anxiety, guilt, dissonance, discomfort, and uncertainty for those who are advantaged *and* disadvantaged."

What should not be forgotten in this context is that also social and structural factors, such as political socialization, mass media influence and institutional control contribute to the emergence of system justification (Jost, Fitzsimons, & Kay, 2004).

2.4.2. System Justification as a Cognitive Process

It was already explained, with an account to a motivational process, how it comes to system justification. To trace the cognitive factor contributing to the tendency to explain and justify the way things are, two exemplary cognitive implications that arise from the named motivation will be presented.

First, as shown in several studies, system justification leads to *rationalisation of the status quo*. For example there is a tendency to judge events that are more likely to occur as more desirable (McGuire & McGuire, 1991; Kay, et al., 2002), a tendency to use stereotypes to rationalize social and economical status differences (Jost & Banaji, 1994) and a tendency for disadvantaged people to accept and justify their own disadvantage (Jost, 2001). It could even be shown that members of disadvantaged groups misremembered the reasons given for their powerlessness as more legitimate than they actually were (Haines & Jost, 2000).

A second cognitive implication of the motivation to justify the system is the *internalisation of inequality*. At this point it has to be said clearly that this internalisation of inequality differs in its character between groups of advantaged and groups of disadvantaged people. For the advantaged it might be easier. They have to legitimize their position of advantage, what can be done through *ingroup favourisation*. For the disadvantage it might be more difficult, because to legitimise the status quo they have to engage in *outgroup favouritism*. Both could be shown by Jost (2001). Another classic example that has to be mentioned for the internalisation of inequality is *depressed entitlement*, what means that members of disadvantaged groups reduce their entitlement relative to members of advantaged groups. This can be seen by women believing that they deserve less money than men do (Major, 1994).

2.4.3. Ego, Group and System Justification

In prior theories it was very often the case that either ego justifying or group justifying motives were stressed to explain behaviour and attitudes towards in and outgroup members. Jost and Banaji (1994) were the first to argue that common forms of stereotyping and intergroup behaviour could hardly be explained with theories stressing individual and collective self interest. For this reason they started to distinguish between three different justification tendencies: Ego, group, and system justification. *Ego justification*, as the tendency to develop and maintain a favourable self-image, increases individual self esteem. From a social identity theorist's point of view *group justification*, as the desire to develop favourable images of one's own group to defend and justify the actions of ingroup members, leads to enhanced collective self esteem.

It was further argued that for members of advantaged groups these motives are consistent. This means that the belief in a fair and legitimate system is consistent with the desire to see oneself as a person and the whole group as valuable. In this line, for members of disadvantaged groups the motives of self, group and system justifying motives are often in conflict. This means that the motive to see the system as fair and legitimate is not consistent with the motive of self and group enhancement (Jost, Burgess, & Mosso, 2001; Jost, Banaji, et al., 2004).

Following from these theoretical assumptions, if people engage in system justification, similar to the different cognitive implications, there will be different psychological consequences for people from advantaged groups compared to people from disadvantaged groups. For members of advantaged groups, system justification will result in decreased ambivalence towards their own group and to increased self esteem. For members of disadvantaged groups, system justification will lead to increased ambivalence towards their ingroup and in general to decreased self esteem. What is important about these consequences that found empirically confirmation (Jost & Thompson, 2000; Jost & Hunyady, 2002), is the conclusion for the disadvantaged. To make it clear, this means that if members of disadvantaged groups engage in system justification, for example through providing ideological support for inequality, these people, while facing a conflict between ego, group and system justification needs, will be confronted with psychological disadvantages such as higher ambivalence towards ingroup members and decreased self esteem. Or as Jost and Hunyady (2002) put it: “[..] members of disadvantaged groups [...] should suffer in terms of psychological well being”.

2.4.4. System Justification Among the Disadvantaged

If system justification leads to outgroup favouritism, depressed entitlement, ingroup ambivalence and lowered self esteem for members of disadvantaged groups, why should they ever engage in system justification? That they actually do, could be shown in several studies (Jost, Banaji, et al., 2004; Haines & Jost, 2000; Jost, et al., 2001).

Generally speaking, members of disadvantaged groups engage in system justification because it makes them feel better in other ways. To roll back to the motivational aspect it makes them feel better because it satisfies the desire to reduce uncertainty, manage threat, conserve energy, believe in a just world, and perceive meaning. Even though this motivational aspects count for both, advantaged and disadvantaged, it is plausible to say that these motivations might play a larger role for the disadvantaged. Furthermore system justification among the disadvantaged can be seen as a way of coping (Miller & Kaiser, 2001) with realities that are inevitable (Kay, et al., 2002). This goes in line with the finding of Haines and Jost (2000) that for disadvantaged groups, system justification, in the form of giving explanations for status or power differences, leads to more positive affect. It was the

same study (Haines & Jost, 2000) that also gave a cognitive explanation, when it found that people from disadvantaged groups generally tended to misremember the reasons given for the power differences as more legitimate than they actually were. All this may explain why the disadvantaged do engage in system justification as the advantaged. But does it explain even more?

At this point system justification theorists' most provocative and even counterintuitive hypothesis will be presented. It will, placed in another context, also be the core hypothesis of this work: As Jost et al (2003) could show in five survey studies, members of disadvantaged groups provide under certain circumstances even stronger ideological support for the given social system than members of advantaged groups.

This finding goes in line with Wicklund and Brehm (1976) who drawing on the logic of cognitive dissonance theory showed that people tend to rationalise their own suffering and therefore increase their commitment to the sources of suffering. This parallelism to cognitive dissonance research makes it plausible that also for the appearance of the mentioned counterintuitive hypothesis cognitive dissonance might play an important role. Coming from this idea Jost, Pelham, et al. (2003) suggested that only a hybrid of dissonance theory and system justification theory can explain these counter intuitive findings. They argue that in this context dissonance might arise from the contradictory cognitions that (a) the system puts one in a position of disadvantage, and (b) through the own acquiescence one is contributing to the stability of the system. For this reason, they say, ideological dissonance arises, and while dissonance causes discomfort, people are driven to reduce this dissonance in order to come back to the well liked state of cognitive and ideological consistency. One way to reach this state of cognitive consistency is through rationalisation of the own state of disadvantage what actually is a form of system justification. This does not mean that system justification must be the only way to achieve cognitive consistency. The point that Jost et al. (2003) wish to make is that social inequality has the capacity to create ideological dissonance and system justification is a possible way to reduce this kind of dissonance.

2.4.5. Boundary Conditions for Enhanced System Justification Among the Disadvantaged

It has to be clear that one cannot argue that members of disadvantaged groups are the strongest supporters of the status quo in every situation. In consideration of the fact that for disadvantaged people system justification is in conflict with motives of group- or self-enhancement and self-interest, no one is even saying that the disadvantaged in general provide the strongest support for the system. It was just said that in some situations the disadvantaged can be the most enthusiastic justifier of the prevailing system. The boundary conditions leading to such situations are discussed in this section (Jost, Pelham, Sheldon, & Sullivan, 2003).

The first factor often stressed by social identity theorists that is relevant in this context is *group identification*. It was shown in past research that for members of disadvantaged groups there is a negative relation between group identification and system justification (Jost, et al., 2001). This means that members of disadvantaged groups should engage in more system justification when the salience of group identities and group interests are relatively low. With an implicit and unobtrusive measure of system justification this was shown by Jost, Pelham et al. (2002). While group- and self-interest is a consistent motive, it is understandable that also the salience of individual self-interest must be low for members of disadvantaged groups to engage in relatively strong system justification (Jost & Hunyady, 2002; Jost, et al., 2001). Drawing on cognitive dissonance theory, another factor that becomes relevant in this context is that of *volition*. As research on cognitive dissonance demonstrates, people who feel that they have chosen are more likely to engage in justification of the situation (Wicklund & Brehm, 1976). The findings of Kluegel and Smith (1986), that poor people show more satisfaction with their own situation and the whole system when they feel responsible for their situation, support this statement. In this line it can be argued that these dissonance-related mechanisms might play a larger role in democratic societies (cf. Havel, 1991). Nevertheless it has to be recognised that people can also rationalize the existing state of affairs, if they do not feel personally responsible for the situation (Kay, et al., 2002).

With its argument not so far away from the factor just mentioned, prevailing ideologies in particular *meritocratic beliefs* might also play an important role. As Kluegel & Smith (1986) argue, in societies with strong meritocratic ideologies, the pressure for the disadvantaged to

provide support for the system is higher than in non-meritocratic societies. This may be the case because an ideological rationalisation with meritocratic ideology convinces the unsuccessful that they had a fair chance to succeed, what makes it easier to accept social inequality (Lane, 1962).

What Jost, Pelham, et al. (2003) do not mention as a boundary condition, but has at least some empirical evidence for playing a role, is the *extent of inequality* in the surrounding system. In the context of 19 countries with different average scores of sexism Glick and Fiske (2001) could show that among members of disadvantaged groups, in this case among women, the level of system justification, measured unobtrusively as the extent of benevolent sexism, was higher in societies in which the average score of sexism was more extreme.

3. Hypotheses

There has already been given a short overview of prior theories that lead to the system justification approach, namely social identity theory, just world theory and the theory of cognitive dissonance. After presenting the core hypothesis of system justification theory, the motivational and the cognitive aspect of this theory have been taken into account. Drawing on the logic of cognitive dissonance theory, the most provocative and even counterintuitive hypothesis of system justification theory has been presented, namely that: *At least under certain circumstances, members of disadvantaged groups can be the strongest supporter of the status quo.*

The aim of this work is now to embed this counter intuitive hypothesis into another context, namely into the context of the German society. Besides that it has not been done earlier, there are several reasons why this might be interesting. First, the results could show whether this provocative hypothesis can be generalised to other societies different from the society of the United States. Second, conclusions can be drawn upon the relevance of different boundary conditions on that hypothesis that was proposed by Jost et al. (2003), even if the results of this work do not confirm the proposed hypothesis. Third, appraisals about the political, economical, and sociological situation in Germany can be given, if the results confirm the hypothesis also in the German context.

Besides the transfer into the German context there is another novum presented in this study to complement prior research in this area. Earlier studies investigating the effect, that the disadvantaged can be the strongest status quo supporter, have focused on field methods. The present work in contrast uses an experimental design to trace the hypothesis. This is interesting because the experimental design is able to eliminate confounding variables, to see if the effect is purely driven by the status of disadvantage.

To break down the hypothesis on an experimental design, students were either brought in a state of relative disadvantage or in a state of relative advantage. Afterwards the amount of justification on three different levels was measured. Two levels presented a possibility to engage in system justification: The level of the governmental system and the level of the educational system. One level namely the level of the University of Konstanz represented a possibility to engage in group justification.

On the level of the governmental system the system justification items were chosen parallel to Jost (2003). This was therefore meant to be the most direct transfer of Josts field studies into an experimental design. Thus, it is plausible to choose the hypothesis in this context as parallel as possible:

Hypothesis 1: Students that are brought in a state of relative disadvantage will engage in stronger system justification on the level of the governmental system than students that are brought in a state of relative advantage.

The level of the educational system was introduced for a specific reason. Because the manipulation was only about a topic that referred to the problems of the educational system, it was suggested that the system justifying effect could be even stronger when it was measured on a level of the educational system. Therefore the following hypothesis was proposed:

Hypothesis 2: Students that are brought in a state of relative disadvantage will engage in stronger system justification on the level of the educational system than students that are brought in a state of relative advantage, even in a stronger way than when system justification is measured on the level of the governmental system.

On the level of the University of Konstanz, as a measure of group-justification, it was suggested, in line with social-identification theory and the concept of group-interest, a different effect:

Hypothesis 3: Students that are brought in a state of relative disadvantage will engage in less system justification on the level of the University of Konstanz than students that are brought in a state of relative advantage.

Through the many moderator variables and a broad number of items to measure system justification this study also has an exploratory character.

4. Method*

4.1. Design

This study was based on an experimental between subject design with two conditions. It was carried out in a laboratory. The between-factor group status divided the participants in two groups with two different states: One state of relative disadvantage and another state of relative advantage. On both conditions we measured the system justification on three different levels: The governmental system level as level one, the educational system level two and the third level of the University. To exclude effects from the order of presentation, we completely randomised the order of the three pages on which the three levels were presented. This made six different orders in every condition what resulted in 12 different questionnaires (see Figure 1).

* In this section I choose „we“ instead of „I“ because the method was developed in constant interaction with Dr. Frank Wieber

Figure 1

Condition	position of the level			questionnaire
	1	2	3	
experimental	1	2	3	1
	1	3	2	2
	2	1	3	3
	2	3	1	4
	3	1	2	5
	3	2	1	6
control	1	2	3	7
	1	3	2	8
	2	1	3	9
	2	3	1	10
	3	1	2	11
	3	2	1	12

4.2. Questionnaire

If not otherwise mentioned the items were framed in a self-rating scale concerning a special statement with seven given answers reaching from 1 (*"I strongly do agree"*) to 7 (*"I absolutely do not agree"*).

4.2.1. Manipulation

Inspired by the dissertation study of John T. Jost (1996) we brought the participants in two different states. In the experimental condition we created a state of relative disadvantage. In the control condition we brought the participants in a state of relative advantage. We provided these two states by the presentation of a faked article from the German magazine "Der Spiegel" combined with a tabular rating scale. In both conditions the article was used to introduce the finding, that the place of study has extensive influence on the later financial situation. To make these finding plausible, we explained it with several arguments, given by experts, concerning quality of teaching, closeness to companies and the possibility of additional qualifying courses. To make the difference between the later financial situation of students from different universities visible and easy to understand we presented a tabular ranking that showed an average "income-score" that described the financial situation of alumni from different universities. Now we varied the location of the University of Konstanz in that ranking to get the two conditions. To create a relative state of disadvantage in the experimental condition, the University of Konstanz was placed at a relatively low position.

To create a relative state of advantage in the control condition, the University of Konstanz was located at a relatively high position. (see. Appendix, 9.3)

4.2.2. Dependent Variable

The dependent variable of interest consisted of 26 items relevant to system justification. First we transferred the items that Jost, Pelham, et al. (2003) used in diverse studies to the German language. That made four constructs, covered with two items each, related to justification of the global governmental system. The first two items asked for the satisfaction with and trust in the government. One of these items was phrased as follows: "Our government officials can be trusted to do what is right". The next two items included questions about meritocratic believes. One item said: „Everyone who is willing to work has a good chance of succeeding." The third construct was about the idea that inequality is not only legitimate but also necessary in special situations. One item presented the following statement: „Only if differences in income are large enough there is an incentive for individual effort." The next two items consisted of statements concerning the limitation of political freedom in special situations. One item said: „If it were necessary to solve our nations problems, would you be in favour of limiting criticism of the government in press." We added one more construct on the level of the governmental system that asked for the willingness to engage in changing the system for the better and the willingness to protest against it if necessary. (see Appendix, 9.4.1)

To include a measurement of system justification related to the educational system and the system of the university we adapted the 10 items to these two new levels. It was not reasonably possible to transfer the third and the fourth construct to the other levels.

On the educational system level we added two new constructs related to system justification on this level to compensate the attrition of Items. One construct concerned the necessity of differences between universities. Its first item said: „Differences between German universities are necessary, to maintain the pluralism in our society." The other construct was related to the necessity of matching the quality standard of different universities. Its fist item was phrased as follows: "It would be wise, to bring the quality standard of different German universities on one level." Note that this item has to be seen as reverse coded. (see Appendix, 9.4.1)

On the university level we just left out the two not transferable items. Thus, we just had three constructs and six items on this level. (see Appendix, 9.4.1)

4.2.3. Control Variables

To measure the self identification with the mentioned levels, we started the questionnaire with two seven item measures of identification (Obst & White, 2005) with the group of “students from the University of Konstanz” and the group of “students from the Federal Republic of Germany”. In this control variable we left out the level of the educational system because it was not reasonable. (see Appendix, 9.2.1)

We continued with a measure of meritocratic belief with four items (cf. Duru-Bellat & Tenret, 2009) and other control variables concerning the feasibility and the desirability of change with three items each on every level. To measure whether studying at the University of Konstanz was an act of volition we also brought in four items to measure whether the place of study was influenced by decision but not by selection or by chance. The introductory questionnaire ended up with six items concerning the satisfaction with financial support for the study in general and from different authorities like the government, other institutions or private persons. (see Appendix, 9.2.2)

4.2.4. Cover Story

To cover the real purpose of the experiment we divided the questionnaire in three parts, telling the participants that there is no connection between them. Part A, including the mentioned control variables, was framed as a measure of several study related topics. Part B, consisting of the faked article and the ranking, was framed a research to reveal the best possible presentation of a ranking. Not only to cover but also to make the disadvantage or the advantage more salient, we asked the participants to calculate the difference in the socio-economic status score between students from the University of Konstanz and students from the university with the highest and the lowest score (see Appendix, 9.3.1). The last part was presented as a measure of general attitudes towards the governmental system, the educational system, and the university (see Appendix, 9.4.1)

4.2.5. Final Questionnaire

The last part ended with a final questionnaire including several manipulation checks. One asked in which area in the ranking the University of Konstanz was located. This was to check if the ranking was studied properly. Another two items asked if the participant actually believed that students from the University of Konstanz in general and he or she as an individual would earn less money than other alumni. This was to check if the participants actually believed in the statements that were given in the faked article. It was also checked, if the ranking had any negative or positive influence on the participants and if the article was perceived as serious and believable. To gain more insight into participants' perceptions and behaviour during the study, they were asked whether they answered the question conscientiously and realistically. There was also some free space in which the participant could give suggestions about the real purpose of the study. The questionnaire ended with some relevant study related data, like the completed semesters or the field of study. (see Appendix, 9.4.2)

4.3. Participants

There were N=128 students from the University of Konstanz that participated in the experiment. Because of the high risk of uncovering the real purpose, psychology students in a semester higher than the second were excluded from the study. The students either participated in line with their study duties or got two coffee vouchers. After a manipulation check that asked if the students actually believed during the study that they would earn less than students from other universities, we excluded 58 participants. As a result we had 70 participants, 27 in the experimental condition that was brought in a relative state of disadvantage, 43 in the control condition which we brought in a relative state of advantage. There were then just 4 psychology students that could be included in the measure. The mean age was 22,4 years with a span from 19 to 27.

4.4. Procedure

The participants were recruited over mailing lists, bulletins placed in the university or just by direct approaches at the university. The information that were given before entering the laboratory consisted of the time needed to carry out the study, the reward and the hint that one part of the study will be about attitudes towards the government, the educational system, and the university. The experiment was run in groups by up to seven persons in a controlled laboratory setting. Each participant was seated at a separate table facing a wall, so it was not possible to see what the neighbour was doing. The three parts of the questionnaire were presented in three separate envelopes that where placed in range on the table with part A on the top. We gave a standardised instruction divided into one short verbal and another detailed written one (see Appendix, 9.1). The verbal instruction made clear that the task consisted of three independent questionnaires and asked the participants kindly to complete the questionnaires as they where placed on the table and put every part back into the envelope when finished. Every part had its own short header to make clear what the task would be in this part. While the questionnaire was completed the experimenter remained in the room to answer questions and to prevent talking between the respondents. To prevent effects from confounding variables we presented the 12 conditions randomised. On a special sheet we recorded the condition that was presented and any anomaly of the participant or the procedure. The debriefing was done with a standardised email that was sent not exceeding two days after the participation.

5. Results

5.1. Construction and Control of Theoretical Constructs

After checking the data with descriptive statistics for typing errors, different scales were construed, each representing one theoretical construct. There were four scales for the control variables, including self-identification, meritocratic belief, feasibility, desirability, financial support and that of volition each consisting of at least two items. There were three global scales of system justification each including all items related to one of the three different levels. On each level there were different constructs consisting of two items.

To check the reliability of these scales an analysis of reliability (Cronbach's α) was calculated with every scale and every construct. The items concerning willingness to help improving the system and willingness to demonstrate against the system, could as intended not be seen as one construct because of the relatively low reliability ($r = .48$). After eliminating one item of the volition construct, every scale had a reliability ranging from $r = .61$ to $r = .88$.

5.2. Order of Presentation Effects

To exclude effects from the six orders of presentation, the following was done: First, three new order-of-presentation variables were built. Each variable was a recoding of the variable that was shown in chapter 4. For the first variable it was a recoding in the way that it brought together the orders in which the level of the governmental system was once on the first, once on the second, and once on the third position. For the second variable it was a recoding in the way that it brought together the orders in which the level of the educational system was once on the first, once on the second, and once on the third position. Concerning the level of the university it was similar with the last variable.

Remember that the items of the global justification scale for every level were presented on one page. To check if there is a difference in the mean of the global system justification scale of one level, when this level is presented on the first, the second or the last position, an univariate analysis of variance was calculated with the adequate order-of-presentation variable as a Factor. This was done on every level separately for the two conditions. No significant effect from the order of presentation could be found, all $F_s < 2.28$, $p_s > .124$. For the experimental condition on the level of the governmental system: $F(2,24) = 1.55$, $p = .23$. For the experimental condition on the level of the educational system: $F(2,24) = 1.37$, $p = .26$. Descriptive statistics showed that the tendency on the level of the governmental system went in the expected direction: Participants had higher system justification scores on that level, when the scale for this level was presented on the first position (see Figure 2). No such tendency could be found on the level of the educational system.

Figure 2:**Descriptive Statistics**

Dependent Variable: global system justification score (on the level of the governmental system)

position of the global system justification scale (on the level of the governmental system) in the questionnaire	mean	standard deviation	N
1	3,5977	,64339	29
2	3,2680	,87052	17
3	3,1159	,71105	23
Gesamt	3,3559	,74744	69

5.3. Analysing the Hypotheses**5.3.1. Multivariate Analysis of Variance**

To see if the global system justification score of one level depended on the condition the participants were in, a multivariate analysis of variance was calculated with the three global system justifications scales as dependent variables and the condition as a fixed factor.

The independence of each person's scores from every other person's score, what is an assumption for the multivariate analysis of variance, was given through the design. The assumption that the dependent variables should be correlated with one another at a moderate level was given with a pearson correlation coefficient ranging from $r = .46$ to $r = .53$. As a multivariate analysis of variance is robust to violations of multivariate normality and to violations of homogeneity of variances and covariances if the groups are nearly equal size, these assumptions haven't had to be checked.

As a result, there was a significant effect on the linear combination of the three global system justification scores, Wilks $\Lambda = .80$, $F(3.65) = 5.57$, $p < .01$. Furthermore follow-up univariate analyses of variance showed a significant effect on the level of the university system, $F(1.67) = 10.33$, $p < .01$. Descriptive statistics showed that the effect went in the expected direction such that participants in the experimental condition having lower scores

than participants in the control condition. On the other two levels there were no significant univariate effects (see Figure 3).

Figure 3:

Descriptive Statistics

Dependent Variable: global system justification score (on the level of the university)

condition	mean	standard deviation	N
(EG) relativ schlechter Status Uni Konstanz	4,4148	,74612	27
(KG) relativ guter Status Uni Konstanz	4,9814	,67586	43
Gesamt	4,7629	,75165	70

5.3.2. Self-Identification as a Control Variable

To take account for self-identification as a control variable, analysis of covariance was done with the global scales of the level of the governmental system and the level of the university.

The following assumptions were checked, independence of observation, normal distribution of the dependent variable, homogeneity of variances, linear relationship between the covariates and the dependent variable, and homogeneity of regression slopes. The independence of observation was given through the design. A boxplot showed that the dependent variables were normally distributed. The Levene's test of equality of error variances showed that the assumption of homogeneity of variances was met. The assumption of linear relationship of the covariates and the dependent variable was checked with a scatterplot and a linear regression. This assumption was met as well. To check the assumption of homogeneity of regression slopes an F-Test on the interaction of the independent variables with the covariate was done. This assumption was only met by the global scale on the level of the university.

As a result the covariate self-identification (with the students from the federal republic of Germany) had a significant effect on system justification on the level of the governmental

system, $F(1,67) = 5.76, p = .019$. However the effect of the condition was no longer significant, $F(1, 66) = .77, p = .38$.

The covariate self identification (with the students from the University of Konstanz) had a significant effect on system justification on the level of the university system, $F(1,68) = 77.90, p < .01$. In this case the effect of the condition was still significant, $F(1,67) = 7.42, p < .01$.

5.3.3. Self-Identification as a Factor

Because the covariate self-identification was significant on both levels, it was reasonable to analyze the variable self-identification as a factor with a two factor analysis of variance on each level.

To make this kind of analysis interpretable out a median split was carrier out with the variable self-identification on both levels.

On the level of the governmental system there was a significant main effect of self-identification (with the students from the Federal Republic of Germany) on system justification, $F(1,65) = 7.54, p < .01$. There was also a significant interaction between the condition and self-identification, $F(1,65) = 10.29, p < .01$. Descriptive statistics showed the direction of the interaction: The higher the self-identification with the relevant group, the more difference between system justification scores of students in the experimental condition compared to the control condition with students in the experimental condition having higher system justification scores (see Figure 4 & 5).

On the level of the university system there was a significant main effect of self-identification (with the students from the University of Konstanz) on system justification, $F(1,66) = 6.68, p = .01$. There was no significant interaction between the condition and self identification, $F(1,66) = .86, p = .335$

Figure 4:

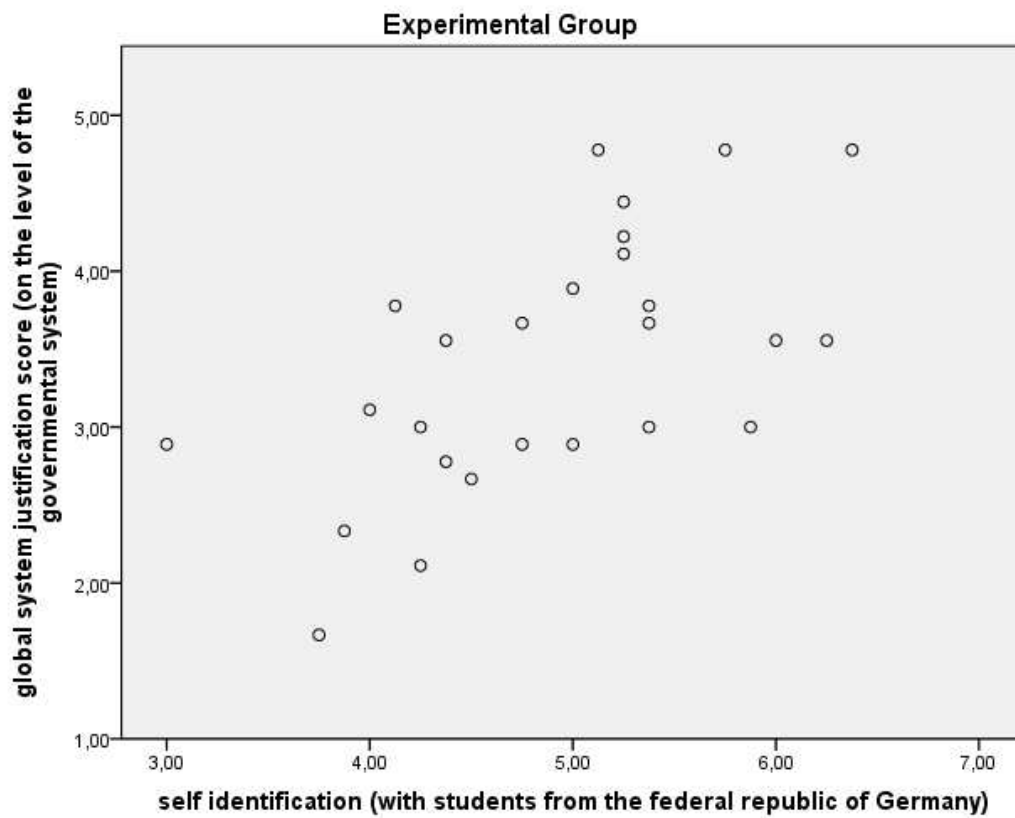
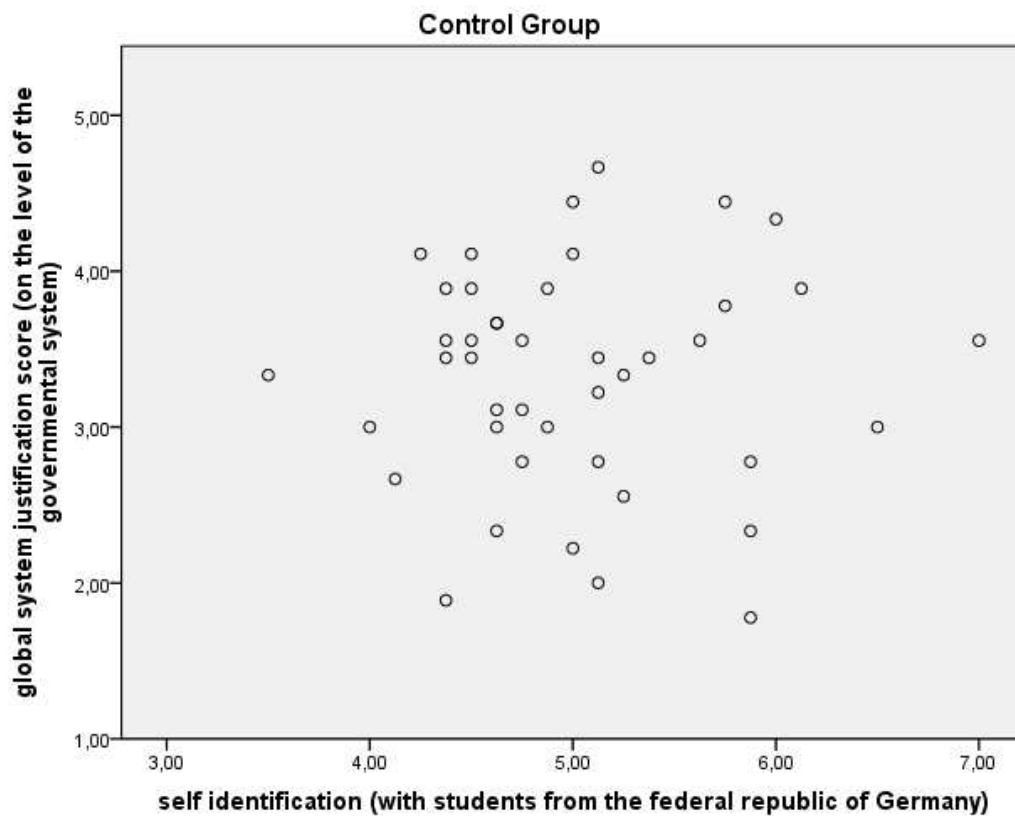


Figure 5:



5.4. Analysis of other Control Variables

Briefly, some results from the other control variables will be presented.

5.4.1. Meritocratic Belief

An analysis of covariance showed that the construct “meritocratic belief” had a significant effect on system justification upon system justification on all levels, all $F_s > 6.91.7$, $ps < .011$. A two factor variance analysis showed further that there is a significant main effect of “meritocratic belief” on system justification on all levels, all $F_s > 2.79$, $ps < .027$. The descriptive statistic showed that enhanced meritocratic belief results in enhanced system justification. No interaction could be found.

5.4.2. Feasibility and Desirability of Improvement

An analysis of covariance showed that the construct “belief in feasibility of the university system” had a significant effect on system justification on the level of the university, $F(1.67) = 7.61$, $p < .01$. A two factor variance analysis showed further that there is a significant main effect of “belief in feasibility of the university system” on system justification on the level of the university, $F(1.61) = 7.67$, $p < .01$. The descriptive statistic showed that enhanced belief in feasibility results in enhanced system justification on the named level. No interaction could be found. Even though it was not significant, a two factorial ANOVA with a descriptive statistic could show that there is also a tendency to have higher system justification scores on the governmental level when the “belief in feasibility of the university system” was high, $F(1.61) = 2.81$, $p = .099$.

There was a ceiling effect for the construct “desirability of improvement”.

5.4.3. Volition

The construct of “volition” showed no significant effects as a control variable on any level.

6. Discussion

6.1. Theoretical Constructs

The analysis of reliability was done on every scale and every bundle of Items, seen as a theoretical construct. The high reliabilities indicate that the theoretical background that led to this scales and constructs is well developed.

6.2. Order of Presentation

The reason, why controlling for effects of the order of presentation, was related to findings done by the cognitive dissonance approach. After several failed trials to replicate the findings of Festinger (1957), it was evident that the need to reduce dissonance can be served through many ways. On subsequent trials in order to replicate Festingers findings the designated effect on the dependent variable could not be seen due to possibilities to reduce cognitive dissonance before the measure of the dependent variable. While the designated effect was supposed to be associated with the reduction of dissonance, it was reasonable to suggest that there is only an effect on the level that was presented first in the questionnaire. As the results showed, on the level of the governmental system there was a tendency for higher scores of system justification when the scale for this level was presented on the first position. These findings can be interpreted in the way that dissonance related effects may at least play some role for the effect of enhanced system justification among the disadvantaged. However, no significant effect from the order of presentation could be found. This finding leads me to suggest that the named effect is not solely and maybe not even primarily driven by the need to reduce cognitive dissonance.

6.3. Hypotheses

There were three hypotheses to be answered concerning different strength of system justification between members of disadvantaged groups and members of advantaged groups. On the level of the governmental and the educational system enhanced system

justification among the disadvantaged was predicted. On the level of the university system reduced system justification among the disadvantaged was predicted.

6.3.1. Hypothesis 1

Hypothesis 1 states that students, brought in a state of relative disadvantage, will engage in stronger system justification on the level of the governmental system than students, brought in a relative state of advantage.

This Hypothesis could not be confirmed with an univariate analysis of variance only considering the two conditions as an independent variable and the global score of system justification on this level as a dependent variable.

However, if you include the variable “self identification” with a two way analysis of variance, the significant interaction shows that when people are highly identified with the corresponding group, they actually do engage in stronger system justification on that level when they are among the disadvantaged. Finally this means that the hypothesis is confirmed under the condition of high self identification with the relevant group.

6.3.2. Hypothesis 2

Hypothesis 2 states, that students brought in a relative state of disadvantage, will engage in stronger system justification on the level of the educational system than students, brought in a relative state of advantage. It was even suggested that the effect on this level could be stronger than the effect on the level of the governmental system.

This Hypothesis could not be confirmed with an univariate analysis of variance.

While it was not possible to control for self identification because identification with a group of the level of the educational system was not reasonable, the hypothesis could not be confirmed at all.

There are several possible reasons for the lack of this predicted effect. First, the theoretical construct the items of this level were based on might not have been very well established since on this level there were several items that could not be transferred without a change of phrasing. Second, it is possible that the educational system is not seen as a system like the governmental system, with clearly defined representatives, but more as a vague construct with missing representatives to blame. Finally, it may be the case that looking

upon the German society the wanted effect can only be shown under the condition of high self identification with the relevant group as it was shown on the level of the governmental system.

6.3.3. Hypothesis 3

Hypothesis 3 stated that students, brought in a state of relative disadvantage, will engage less system justification on the level of the University of Konstanz than students, brought in a relative state of advantage.

With an univariate analysis of variances it was shown that members of disadvantaged groups actually do engage in less system justification on the level of the University of Konstanz. Thus, in this case the prediction was confirmed even without taking self identification into account.

While this finding is consistent with theories stressing self and group interest like the social identification theory, this result is not very surprising.

6.4. Control Variables

6.4.1. Meritocratic Belief

The main effect of “meritocratic belief” on system justification scores at all levels shows that generally enhanced meritocratic beliefs of people lead to an enhanced tendency to justify and rationalize the existing status quo. This finding supports the assumption of Jost et al. (2003) that in meritocratic societies the tendency to legitimize and rationalize the existing system plays a larger role. However, in the present study no significant interaction effect between the condition and the meritocratic belief could be shown. This does not support the further assumption of Jost et al. (2003) that the specific effect of enhanced system justification among the disadvantaged can only be shown in a meritocratic background.

6.4.2. Belief in Feasibility

The main effect of “belief in feasibility of the university system” on system justification at the level of the university is an interesting one. It shows that students, who think that the

conditions of their university can be changed, do engage in stronger justification and rationalization of the university system. This first finding leads to the general statement that a changeable system is better legitimized than an unchangeable system. This is very plausible when you consider the general need for control people have.

Although it was not significant, there is also a tendency to engage in stronger system justification on the governmental level when the “belief in feasibility of the university system” is high. This second finding leads to the suggestion that if the need for control is met with a high changeable ingroup system it can also diminish the tendency to challenge the global governmental system. Thus, maybe it is the case that the feeling of control can be generalized from one area to another.

6.4.3. Volition

The present study does not reveal any effect of the construct of “volition” on any level. This finding opposes the statement of Jost et al. (2003) that the volition is a factor that contributes to the designated effect of the present study. While this statement derived from dissonance research, that states that people would be more likely to engage in justification of outcomes when they feel they have chosen (Wicklund & Brehm, 1976), it is again plausible to suggest that the effect of enhanced system justification among the disadvantaged might not primarily be due to dissonance effects.

6.5. Conclusion

Much research has been done on system justification theory. As the theoretical and empirical background could show, there is widespread evidence that people do engage in system justification because they have a motivation to do so. This motivation can have different cognitive consequences like rationalizing the status quo or internalizing inequality. While these consequences can bring all people into trouble, in the majority of cases the disadvantaged are the ones who suffer the most from it. However, carrying the tendency of system justification to extremes it could be shown by Jost and others (Jost, Pelham, et al., 2003) that under certain conditions members of disadvantaged groups can even be strongest supporter of the status quo. This could be supported by the present study.

The essential question to be asked at this point is, whether the hypothesis of enhanced system justification can be transferred to the German society in general? While the wanted effect has only been seen with high self identification upon the relevant system as a boundary condition, the present study suggest that the answer to this question must be “No”. Analog to the answer just given, it would be inappropriate to suggest that the effect of enhanced system justification among the disadvantaged could be generalized easily to other societies. Taking the present study and others into account, it is evident that the effect of interest is linked to several boundary conditions. However, it appears that the boundary factors that were stated down to the present day are not the end of the story. Maybe some factors are not as relevant as prior suggested. Maybe some others have not even been found.

Still, the conclusion can be drawn that in the German society as well the tendency to justify and rationalize the existing social, economical and political system should be kept in mind when social, economical or political decisions are made. Furthermore, with regard to the finding that under certain circumstances in the German society the disadvantaged can be even the strongest supporters of the status quo, it is important to closely look at this kind of status quo. There are several inequalities that are still apparent in the status quo of the German society, like the Gender Pay Gap, the even growing gap between rich and poor and the shortcomings of our educational system in giving equal opportunities. It is necessary to see that this might also be state of the art because we have an inherent tendency to preserve what is given and see the status quo as legitimate and even necessary.

Because it may be the case that not all factors that lead to enhanced system justification among the disadvantaged are named yet, further research could be done to trace out these boundary conditions. Moreover, there are many other countries where system justification research has not been done yet. It could also be a mission for further research to enlighten these other contexts with investigation of system justification tendencies.

7. Abstract

The aim of the present study was to examine the counterintuitive effect of enhanced system justification among the disadvantaged in another context, namely the context of the German society. The implementation of this research issue was done through an experimental method upon students of the University of Konstanz, which were either brought in a relative state of advantage or a relative state of disadvantage. The amount of system justification was measured on three levels, the governmental system, the educational system and the university system. Two Hypotheses drawn on the first two levels concerned the counterintuitive effect of enhanced system justification among the disadvantaged. One Hypothesis drawn on the level of the university system concerned traditional theories stressing group and self interest. Emphasizing the first two hypotheses the results showed that the effect of enhanced system justification among the disadvantaged could only be found on the level of the governmental system when the self identification with that system was high. The third hypothesis, derived from traditional theories stressing group and self interest could be confirmed even without the boundary condition of high self identification. It was also shown that meritocratic beliefs and the factor of volition did not play an important role in generating the effect of enhanced system justification.

8. References

- Anderson, C. J. (2003). The psychology of doing nothing: Forms of decision avoidance result from reason and emotion. *Psychological Bulletin*, 129(1), 139-166.
- Aronson, E. (1992). The return of the repressed: Dissonance theory makes a comeback. *Psychological Inquiry*, 3(4), 303-311.
- Aronson, E. (2000). Cognitive Dissonance. In A. E. Kazdin (Ed.), *Encyclopedia of psychology*, Vol. 2. (pp. 141-142): American Psychological Association
Oxford University Press.
- Aronson, E., & Mills, J. (1959). The effect of severity of initiation on liking for a group. *The Journal of Abnormal and Social Psychology*, 59(2), 177-181.
- Bundesministerium für Arbeit und Soziales (2008), Lebenslagen in Deutschland: Der dritte Armuts- und Reichtumsbericht der Bundesregierung
- Dalbert, C. (2001). *The justice motive as a personal resource: Dealing with challenges and critical life events*. New York, NY US: Kluwer Academic/Plenum Publishers.
- Duru-Bellat, M. & Tenret E. (2009), Does school strengthen the belief in meritocracy? *Proposal for the ECSR Conference, OSC IEP, Paris*
- Cooper, J., & Fazio, R. H. (1984). A new look at cognitive dissonance theory. In L. Berkowitz (Ed.), *Advances in experimental social psychology* (Vol. 17, pp. 229-267). New York: Academic Press
- Festinger, L. (1957). *A theory of cognitive dissonance*: Stanford University Press.
- Haines, E. L., & Jost, J. T. (2000). Placating the powerless: Effects of legitimate and illegitimate explanation on affect, memory, and stereotyping. *Social Justice Research*, 13(3), 219-236.
- Hafer. C.L.(2000). Do innocent victims threaten the belief in a just world? Evidence from a modified stroop task. *Jornal of Personality and Social Psychology*, 79, 165-173.
- Havel, V. (1991). The power of the powerless. In V. Havel (Ed.), *Open letters* (pp. 125–214). London: Faber & Faber
- Horkheimer, M. (1970/ reprint), *Traditionelle und Kritische Theorie: Vier Aufsätze*, Frankfurt am Main, S.Fischer Verlag, S. 32
- Jost, J. T. (1996). Ingroup and outgroup favoritism among groups differing in socio-economic success: effects of perceived legitimacy and justification processes. Dissertation

- Abstracts International: *Section B: The sciences and engineering*. [1996 Jul Vol 57(1-B) 0763].
- Jost, J. T. (2001). Outgroup favoritism and the theory of system justification: A paradigm for investigating the effects of socioeconomic success on stereotype content. In G. B. Moskowitz (Ed.), *Cognitive social psychology: The Princeton Symposium on the Legacy and Future of Social Cognition*. (pp. 89-102). Mahwah, NJ US: Lawrence Erlbaum Associates Publishers.
- Jost, J. T., & Banaji, M. R. (1994). The role of stereotyping in system-justification and the production of false consciousness. *British Journal of Social Psychology*, *33*(1), 1-27.
- Jost, J. T., Banaji, M. R., & Nosek, B. A. (2004). A Decade of System Justification Theory: Accumulated Evidence of Conscious and Unconscious Bolstering of the Status Quo. *Political Psychology*, *25*(6), 881-920.
- Jost, J. T., Blount, S., Pfeffer, J., & Hunyady, G. (2003). Fair market ideology: Its cognitive-motivational underpinnings. In R. M. Kramer & B. M. Staw (Eds.), *Research in organizational behavior: An annual series of analytical essays and critical reviews*, Vol 25. (pp. 53-91). Oxford England: Elsevier Science Ltd.
- Jost, J. T., & Burgess, D. (2000). Attitudinal ambivalence and the conflict between group and system justification motives in low status groups. *Personality and Social Psychology Bulletin*, *26*(3), 293-305.
- Jost, J. T., Burgess, D., & Mosso, C. O. (2001). Conflicts of legitimation among self, group, and system: The integrative potential of system justification theory. In J. T. Jost & B. Major (Eds.), *The psychology of legitimacy: Emerging perspectives on ideology, justice, and intergroup relations*. (pp. 363-388). New York, NY US: Cambridge University Press.
- Jost, J. T., Fitzsimons, G., & Kay, A. C. (2004). The Ideological Animal: A System Justification View. In J. Greenberg, S. L. Koole & T. Pyszczynski (Eds.), *Handbook of Experimental Existential Psychology*. (pp. 263-283). New York, NY US: Guilford Press.
- Jost, J. T., Glaser, J., Kruglanski, A. W., & Sulloway, F. J. (2003). Political conservatism as motivated social cognition. *Psychological Bulletin*, *129*(3), 339-375.
- Jost, J. T., & Hunyady, O. (2002). The psychology of system justification and the palliative function of ideology. In W. Stroebe & M. Hewstone (Eds.), *European review of social*

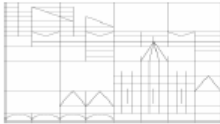
- psychology, Vol 13.* (pp. 111-153). Hove England: Psychology Press/Taylor & Francis (UK).
- Jost, J. T., Pelham, B. W., & Carvallo, M. R. (2002). Non-conscious forms of system justification: Implicit and behavioral preferences for higher status groups. *Journal of Experimental Social Psychology, 38*(6), 586-602.
- Jost, J. T., Pelham, B. W., Sheldon, O., & Sullivan, B. N. (2003). Social inequality and the reduction of ideological dissonance on behalf of the system: Evidence of enhanced system justification among the disadvantaged. *European Journal of Social Psychology, 33*(1), 13-36.
- Jost, J. T., & Thompson, E. P. (2000). Group-based dominance and opposition to equality as independent predictors of self-esteem, ethnocentrism, and social policy attitudes among African Americans and European Americans. *Journal of Experimental Social Psychology, 36*(3), 209-232.
- Kay, A. C., Jimenez, M. C., & Jost, J. T. (2002). Sour grapes, sweet lemons, and the anticipatory rationalization of the status quo. *Personality and Social Psychology Bulletin, 28*(9), 1300-1312.
- Kay, A. C., & Jost, J. T. (2003). Complementary Justice: Effects of 'Poor but Happy' and 'Poor but Honest' Stereotype Exemplars on System Justification and Implicit Activation of the Justice Motive. *Journal of Personality and Social Psychology, 85*(5), 823-837.
- Kay, A. C., Gaucher, D., Peach, J. M., et al. (2009). Inequality, Discrimination, and the Power of the Status Quo: Direct Evidence for a Motivation to See the Way Things Are as the Way They Should Be, *Journal of Personality and Social Psychology*, Vol. 97, No. 3, 421-434
- Kluegel, J. R., & Smith, E. R. (1986). *Beliefs about inequality: Americans' views of what is and what ought to be.* Hawthorne, NY US: Aldine de Gruyter.
- Lane, R. E. (1962). *Political ideology: why the American common man believes what he does.* Oxford England: Free Press of Glencoe.
- Lerner, M. J. (1980). *The belief in a just world: A fundamental delusion.* New York: Plenum Press.

- Linder, D. E., Cooper, J., & Jones, E. E. (1967). Decision freedom as a determinant of the role of incentive magnitude in attitude change. *Journal of Personality and Social Psychology*, 6(3), 245-254.
- Major, B. (1994). From social inequality to personal entitlement: The role of social comparisons, legitimacy appraisals, and group membership. In M. P. Zanna (Ed.), *Advances in experimental social psychology*, Vol. 26. (pp. 293-355). San Diego, CA US: Academic Press.
- McGuire, W. J., & McGuire, C. V. (1991). The content, structure, and operation of thought systems. In R. S. Wyer, Jr. & T. K. Srull (Eds.), *The content, structure, and operation of thought systems*. (pp. 1-78). Hillsdale, NJ England: Lawrence Erlbaum Associates, Inc.
- Miller, C. T., & Kaiser, C. R. (2001). A theoretical perspective on coping with stigma. *Journal of Social Issues*, 57(1), 73-92.
- Obst, P. L., & White, K. M. (2005). An Exploration of the Interplay between Psychological Sense of Community, Social Identification and Salience. *Journal of Community & Applied Social Psychology*, 15(2), 127-135.
- Organisation for Economic Co-operation and Development, (2010), Education at a Glance 2010: OECD Indicators
- Rutjens, B. T., & Loseman, A. (2010). The society-supporting self: System justification and cultural worldview defense as different forms of self-regulation. *Group Processes & Intergroup Relations*, 13(2), 241-250.
- Statistisches Bundesamt, Verdienstunterschied zwischen Männern und Frauen, Online im Internet:<http://www.destatis.de/jetspeed/portal/cms/Sites/destatis/Internet/DE/Navigations/Statistiken/VerdiensteArbeitskosten/Verdienstunterschiede/Verdienstunterschiede.psml> (Stand 22.09.2010)
- Tajfel, H. (1982). Social psychology of intergroup relations. *Annual Review of Psychology*, 33, 1-39.
- Tajfel, H., & Turner, J. C. (2004). The Social Identity Theory of Intergroup Behavior. In J. T. Jost & J. Sidanius (Eds.), *Political psychology: Key readings*. (pp. 276-293). New York, NY US: Psychology Press.
- Turner, J. C., Brown, R. J., & Tajfel, H. (1979). Social comparison and group interest in ingroup favouritism. *European Journal of Social Psychology*, 9(2), 187-204.

- Turner, J. C., Hogg, M. A., Oakes, P. J., Reicher, S. D., & Wetherell, M. S. (1987). *Rediscovering the social group: A self-categorization theory*. Cambridge, MA US: Basil Blackwell.
- Wicklund, R. A., & Brehm, J. W. (1976). *Perspectives on cognitive dissonance*. Oxford England: Lawrence Erlbaum.

9. Appendix

9.1. Introduction



Universität Konstanz
Sektion Naturwissenschaften

Fachbereich Psychologie
Dr. Frank Wieber

Frank.Wieber@uni-konstanz.de
Paul-Simon.Zerbe@uni-konstanz.de

Universität Konstanz · 78457 Konstanz

Liebe(r) Teilnehmer(in),

die vorliegende Studie besteht aus drei Teilen. Im ersten Teil geht es darum, wie zugehörig sich Studierende zu verschiedenen Gruppen fühlen, sowie um weitere Studiums-bezogene Daten. Im zweiten Teil wird die bestmögliche Darstellung von Rankingergebnissen untersucht. Der dritte Teil erfragt generelle Einstellungen gegenüber Staat, Bildungssystem und Universität.

Die gesamte Studie wird etwa 20 Minuten dauern. Ihre Daten werden anonymisiert und alleine zu Forschungszwecken genutzt und nicht an Dritte weiter gegeben.

Sollten Sie trotzdem nicht wollen, dass Ihre Daten verwendet werden, können Sie uns das bis zum Ende der Untersuchung mitteilen und wir werden ihre Unterlagen vernichten. Die Teilnahme ist freiwillig.

Falls Sie Fragen haben, geben Sie dem Versuchsleiter bitte ein Zeichen. Wenn Sie im Nachhinein irgendwelche Fragen oder Bedenken bezüglich dieser Studie haben, können Sie Paul-Simon Zerbe oder Dr. Frank Wieber kontaktieren.

Ich habe die Erklärung gelesen und verstanden. Ich stimme meiner Teilnahme am Experiment zu.

Konstanz, den

Unterschrift-----

9.2. Questionnaire – Part A

9.2.1. Self-Identification Scale

Teil A

Fragebogen zur Zugehörigkeit zu verschiedenen Gruppen

Bitte beantworten Sie im Folgenden, wie stark Sie sich zu den „Studenten/innen der Universität Konstanz“ zugehörig fühlen:

Ich identifiziere mich mit den Studenten/innen der Universität Konstanz.

trifft nicht zu						trifft voll zu
①	②	③	④	⑤	⑥	⑦

Die Tatsache, dass ich zu den Studenten/innen der Universität Konstanz gehöre, hat wenig damit zu tun, wie ich mich selbst sehe.

trifft nicht zu						trifft voll zu
①	②	③	④	⑤	⑥	⑦

Ich finde es gut, dass ich zu den Studenten/innen der Universität Konstanz gehöre.

trifft nicht zu						trifft voll zu
①	②	③	④	⑤	⑥	⑦

Ich fühle mich mitverantwortlich für das, was den Studenten/innen der Universität Konstanz geschieht.

trifft nicht zu						trifft voll zu
①	②	③	④	⑤	⑥	⑦

Häufig bedaure ich, zu den Studenten/innen der Universität Konstanz zu gehören.

trifft nicht zu						trifft voll zu
①	②	③	④	⑤	⑥	⑦

Ich fühle mich stark mit den Studenten/innen der Universität Konstanz verbunden.

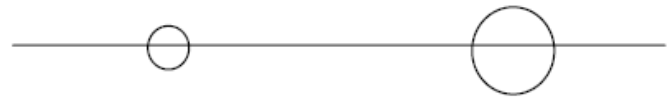
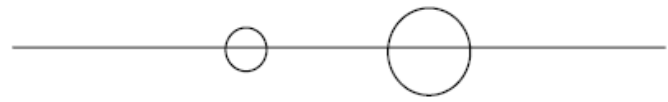
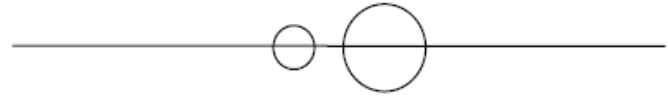
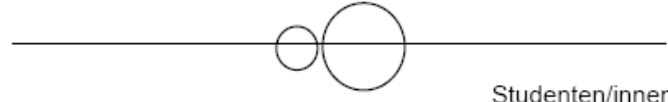
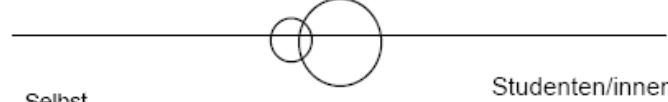
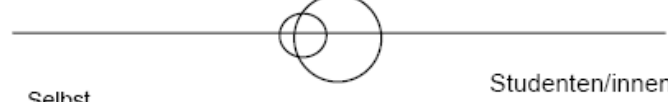

trifft nicht zu						trifft voll zu
①	②	③	④	⑤	⑥	⑦

Im Allgemeinen bin ich froh, zu den Studenten/innen der Universität Konstanz zu gehören.

trifft nicht zu						trifft voll zu
①	②	③	④	⑤	⑥	⑦

Teil A

Kreuzen Sie bitte die Darstellung an, die am besten *Ihre eigene Nähe* zu den „**Studenten/innen der Universität Konstanz**“ beschreibt!

	<input type="checkbox"/>
Selbst	Studenten/innen Uni Konstanz
	<input type="checkbox"/>
Selbst	Studenten/innen Uni Konstanz
	<input type="checkbox"/>
Selbst	Studenten/innen Uni Konstanz
	<input type="checkbox"/>
Selbst	Studenten/innen Uni Konstanz
	<input type="checkbox"/>
Selbst	Studenten/innen Uni Konstanz
	<input type="checkbox"/>
Selbst	Studenten/innen Uni Konstanz
	<input type="checkbox"/>
Selbst	Studenten/innen Uni Konstanz

Teil A

Bitte beantworten Sie im Folgenden, wie stark Sie sich zu den „Studenten/innen der Bundesrepublik Deutschland“ zugehörig fühlen:

Ich identifiziere mich mit den Studenten/innen der Bundesrepublik Deutschland.

trifft nicht zu						trifft voll zu
①	②	③	④	⑤	⑥	⑦

Die Tatsache, dass ich zu den Studenten/innen der Bundesrepublik Deutschland gehöre, hat wenig damit zu tun, wie ich mich selbst sehe.

trifft nicht zu						trifft voll zu
①	②	③	④	⑤	⑥	⑦

Ich finde es gut, dass ich zu den Studenten/innen der Bundesrepublik Deutschland gehöre.

trifft nicht zu						trifft voll zu
①	②	③	④	⑤	⑥	⑦

Ich fühle mich mitverantwortlich für das, was den Studenten/innen der Bundesrepublik Deutschland geschieht.

trifft nicht zu						trifft voll zu
①	②	③	④	⑤	⑥	⑦

Häufig bedaure ich, zu den Studenten/innen der Bundesrepublik Deutschland zu gehören.

trifft nicht zu						trifft voll zu
①	②	③	④	⑤	⑥	⑦

Ich fühle mich stark mit den Studenten/innen der Bundesrepublik Deutschland verbunden.


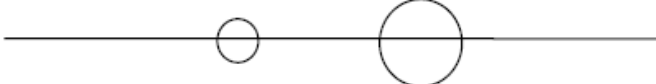


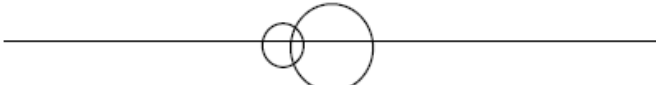
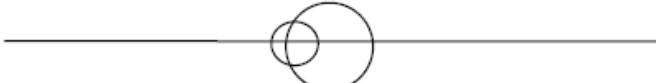

trifft nicht zu						trifft voll zu
①	②	③	④	⑤	⑥	⑦

Im Allgemeinen bin ich froh, zu den Studenten/innen der Bundesrepublik Deutschland zu gehören.

trifft nicht zu						trifft voll zu
①	②	③	④	⑤	⑥	⑦

Teil A

Kreuzen Sie bitte die Darstellung an, die am besten *Ihre eigene Nähe* zu den „**Studenten/innen der Bundesrepublik Deutschland**“ beschreibt!

	<input type="checkbox"/>
Selbst	Studenten/innen der Bundesrepublik Deutschland
	<input type="checkbox"/>
Selbst	Studenten/innen der Bundesrepublik Deutschland
	<input type="checkbox"/>
Selbst	Studenten/innen der Bundesrepublik Deutschland
	<input type="checkbox"/>
Selbst	Studenten/innen der Bundesrepublik Deutschland
	<input type="checkbox"/>
Selbst	Studenten/innen der Bundesrepublik Deutschland
	<input type="checkbox"/>
Selbst	Studenten/innen der Bundesrepublik Deutschland
	<input type="checkbox"/>
Selbst	Studenten/innen der Bundesrepublik Deutschland

9.2.2. Other Control Variables

Teil A

Bitte beantworten Sie, wie stark Sie den gemachten Aussagen zustimmen würden:

In unserem Land werden die Menschen für ihre Anstrengungen belohnt.

stimme gar nicht zu						stimme sehr zu
①	②	③	④	⑤	⑥	⑦

In unserem Land werden die Menschen für ihre Fähigkeiten belohnt.

stimme gar nicht zu						stimme sehr zu
①	②	③	④	⑤	⑥	⑦

In unserem Land ist es egal, wie sehr man sich anstrengt.

stimme gar nicht zu						stimme sehr zu
①	②	③	④	⑤	⑥	⑦

In unserem Land ist es egal, wie viele Fähigkeiten man besitzt.

stimme gar nicht zu						stimme sehr zu
①	②	③	④	⑤	⑥	⑦

Es ist grundsätzlich möglich, die Bedingungen an der Uni Konstanz zu verbessern.

stimme gar nicht zu						stimme sehr zu
①	②	③	④	⑤	⑥	⑦

Die Bedingungen an der Uni Konstanz sind leicht zu verändern.

stimme gar nicht zu						stimme sehr zu
①	②	③	④	⑤	⑥	⑦

Es ist schwer, die Bedingungen an der Uni Konstanz zu verbessern.

stimme gar nicht zu						stimme sehr zu
①	②	③	④	⑤	⑥	⑦

Es ist grundsätzlich möglich, die Bedingungen im deutschen Bildungssystem zu verbessern.

stimme gar nicht zu						stimme sehr zu
①	②	③	④	⑤	⑥	⑦

Die Bedingungen im deutschen Bildungssystem sind leicht zu verändern.

stimme gar nicht zu						stimme sehr zu
①	②	③	④	⑤	⑥	⑦

Es ist schwer, die Bedingungen im deutschen Bildungssystem zu verbessern.

stimme gar nicht zu						stimme sehr zu
①	②	③	④	⑤	⑥	⑦

Es ist grundsätzlich möglich, die Bedingungen in der Bundesrepublik Deutschland zu verbessern.

stimme gar nicht zu						stimme sehr zu
①	②	③	④	⑤	⑥	⑦

Teil A

Die Bedingungen in der Bundesrepublik Deutschland sind leicht zu verändern.

stimme gar nicht zu						stimme sehr zu
①	②	③	④	⑤	⑥	⑦

Es ist schwer, die Bedingungen in der Bundesrepublik Deutschland zu verbessern.

stimme gar nicht zu						stimme sehr zu
①	②	③	④	⑤	⑥	⑦

Es ist mir wichtig, dass sich die Bedingungen an der Uni Konstanz verbessern.

stimme gar nicht zu						stimme sehr zu
①	②	③	④	⑤	⑥	⑦

Ich lege keinen Wert darauf, dass sich die Bedingungen an der Uni Konstanz verbessern.

stimme gar nicht zu						stimme sehr zu
①	②	③	④	⑤	⑥	⑦

Es ist wünschenswert, die Bedingungen an der Uni Konstanz zu verbessern.

stimme gar nicht zu						stimme sehr zu
①	②	③	④	⑤	⑥	⑦

Es ist mir wichtig, dass sich die Bedingungen im deutschen Bildungssystem verbessern.

stimme gar nicht zu						stimme sehr zu
①	②	③	④	⑤	⑥	⑦

Ich lege keinen Wert darauf, dass sich die Bedingungen im deutschen Bildungssystem verbessern.

stimme gar nicht zu						stimme sehr zu
①	②	③	④	⑤	⑥	⑦

Es ist wünschenswert, die Bedingungen im deutschen Bildungssystem zu verbessern.

stimme gar nicht zu						stimme sehr zu
①	②	③	④	⑤	⑥	⑦

Es ist mir wichtig, dass sich die Bedingungen in der Bundesrepublik Deutschland verbessern.

stimme gar nicht zu						stimme sehr zu
①	②	③	④	⑤	⑥	⑦

Ich lege keinen Wert darauf, dass sich die Bedingungen in der Bundesrepublik Deutschland verbessern.

stimme gar nicht zu						stimme sehr zu
①	②	③	④	⑤	⑥	⑦

Es ist wünschenswert, die Bedingungen in der Bundesrepublik Deutschland zu verbessern.

stimme gar nicht zu						stimme sehr zu
①	②	③	④	⑤	⑥	⑦

Teil A

Bitte beantworten Sie, wie stark die gemachten Aussagen für Sie zutreffen:

Ich habe mir die Entscheidung nicht leicht gemacht, an die Universität Konstanz zu gehen.

trifft nicht zu						trifft voll zu
①	②	③	④	⑤	⑥	⑦

Ich habe mich bewusst für die Universität Konstanz als Studienort entschieden.

trifft nicht zu						trifft voll zu
①	②	③	④	⑤	⑥	⑦

Die Universität Konstanz ist meine Wunschuniversität.

trifft nicht zu						trifft voll zu
①	②	③	④	⑤	⑥	⑦

Ich konnte mir nicht aussuchen, an welcher Universität ich studiere.

trifft nicht zu						trifft voll zu
①	②	③	④	⑤	⑥	⑦

Bitte beantworten Sie nun einige Fragen zu Ihrer finanziellen Unterstützung:

Wie gut würden Sie die finanzielle Unterstützung einschätzen, die Sie zum Studieren erhalten?

sehr unter- durchschnittlich						sehr über- durchschnittlich
①	②	③	④	⑤	⑥	⑦

Wie positiv schätzen Sie Ihre finanzielle Unterstützung im Vergleich zu Ihren Mit-Studenten/innen ein?

gar nicht positiv						sehr positiv
①	②	③	④	⑤	⑥	⑦

Wie zufrieden sind Sie insgesamt mit der finanziellen Unterstützung, die Sie zum Studieren erhalten?

gar nicht zufrieden						sehr zufrieden
①	②	③	④	⑤	⑥	⑦

Erhalten Sie finanzielle Unterstützung durch den Staat (z.B. BAFÖG)?

Ja Nein

Wenn ja, wie zufrieden sind Sie mit dieser finanziellen Unterstützung?

gar nicht						sehr
①	②	③	④	⑤	⑥	⑦

Erhalten Sie finanzielle Unterstützung durch sonstige Institutionen (z.B. Stiftungen)?

Ja Nein

Wenn ja, wie zufrieden sind Sie mit dieser finanziellen Unterstützung?

gar nicht						sehr
①	②	③	④	⑤	⑥	⑦

Erhalten Sie finanzielle Unterstützung von privaten Seite (z.B. Eltern, Verwandte)?

Ja Nein

Wenn ja, wie zufrieden sind Sie mit dieser finanziellen Unterstützung?

gar nicht						sehr
①	②	③	④	⑤	⑥	⑦

9.3. Questionnaire – Part B

9.3.1. Experimental Group

Teil B

Fragebogen zur Darstellung von Ranking-Ergebnissen

In diesem Teil möchten wir herausfinden, welche die bestmögliche graphische Darstellung von Ranking-Ergebnissen ist. Um ihr Interesse zu wecken, haben wir ein Ranking im Hochschulbereich ausgewählt. Im nachfolgenden Artikelausschnitt wird der Inhalt des Rankings beschrieben. Bitte lesen Sie sich diesen zuerst aufmerksam durch.

SPIEGEL ONLINE

24. April 2010, 11:30 Uhr

Ausbildung im Vergleich

Große Unterschiede zwischen den Hochschulen

Viele Studenten sind der Meinung, dass die Auswahl ihres Studienortes eine sehr wichtige Entscheidung war. In der Tat ergaben neueste Studien, dass die Wahl des Studienortes weit reichende Auswirkungen auf das spätere Leben hat. Es konnte zum Beispiel gezeigt werden, dass der spätere finanzielle Status maßgeblich durch die Hochschule beeinflusst wird, an der man seinen Abschluss gemacht hat.

Das *Bundesinstitut für Sozialforschung* beschäftigt sich seit einigen Jahren intensiv mit diesem Thema. In einer neuesten, groß angelegten Studie erfragte man das derzeitige Gehalt von über zehntausend ehemaligen Studenten verschiedener Hochschulen, die bereits 10 Jahre im Berufsleben standen. Aus den erfassten Daten wurde für jede Universität ein so genannter „Verdienst-Wert“ errechnet, der beschreibt, wie es im Durchschnitt um das spätere Einkommen der Absolventen einer bestimmten Universität steht.

Man stellte fest, dass Universitäten, die sich als herausragend in der Forschung erwiesen hatten, ihre Studenten nicht immer auch herausragend auf das spätere Leben vorbereiteten. Alle fünf Fachhochschulen, welche in die Studie eingeschlossen wurden, schnitten im Vergleich zu den Universitäten überdurchschnittlich ab.

Um diese spätere finanzielle Ungleichheit erklärbar zu machen, meldeten sich einige namhafte Vertreter aus diversen wissenschaftlichen Disziplinen zu Wort. Prof. Dr. Thomas Kalthoff, Leiter des Forschungsbereichs Bildungssoziologie an der Universität Heidelberg, sagt hierzu folgendes: „Zentraler Punkt ist die unterschiedliche Qualität der Lehre, oder besser gesagt die unterschiedliche Fähigkeit von Lehrenden verschiedener Universitäten, ihre Studenten auf den späteren Berufsalltag vorzubereiten.“ Hierbei spielen die Aktualität und Praxisrelevanz der Lehrinhalte eine wesentliche Rolle. Prof. Dr. Klaus Wickert, Rektor der FH München und Mitglied des Wissenschaftsrates, fügt weiter hinzu: „Nicht zu unterschätzen ist in diesem Kontext die unterschiedliche Nähe der Hochschulen zu Betrieben und außeruniversitären Einrichtungen. Diese ermöglicht den Studenten für ihre spätere Berufslaufbahn wichtige Kontakte zu knüpfen.“ Ein weiteres häufig hervorgebrachtes Argument betont die wesentliche Rolle, welche die Anzahl an fächerübergreifenden, berufsqualifizierenden Veranstaltungen spielen.

URL: <http://www.spiegel.de/bildung/studium/0,1518,690837,00.html>

Teil B

Bitte betrachten Sie nun die dargebotene Grafik, welche die im Artikel beschriebene Studie veranschaulichen soll, und beantworten dazu die unten stehenden Fragen:

„Verdienst-Wert“ verschiedener Universitäten (Max. Punktezahl: 500)	
Universität	Wert
1. FH Stuttgart	491
2. FH Würzburg	484
3. Uni Heidelberg	475
4. FH München	470
5. Uni Karlsruhe	456
6. HU Berlin	454
7. LMU München	448
8. FU Berlin	443
9. Uni Augsburg	439
10. FH Münster	430
11. TU Dresden	421
12. Uni Freiburg	415
13. FH Darmstadt	414
14. TU München	407
15. Uni Frankfurt	401
16. Uni Bremen	396
17. Ruhr-Uni Bochum	396
18. Uni Köln	394
19. Uni Göttingen	390
20. Uni Ulm	385
21. Uni Mainz	374
22. Uni Augsburg	371
23. Uni Regensburg	369
24. TU Braunschweig	364
25. RWTH Aachen	362
26. Uni Jena	360
27. FAU Erlangen	356
28. Uni Marburg	345
29. Uni Kassel	344
30. Uni Hamburg	341
31. Uni Magdeburg	332
32. Uni Dresden	327
33. Uni Konstanz	327
34. Uni Mannheim	326
35. Uni Passau	322
36. JLU Gießen	306
37. Uni Leipzig	305
38. OFU Bamberg	304
39. Uni Bielefeld	299
40. FWU Bonn	294
41. Uni Greifswald	290
42. Uni Bayreuth	289
43. Uni Lübeck	285
44. Uni Kiel	280
45. Uni Hildesheim	278
46. Uni Paderborn	274

Wie viele Punkte ist die Universität Konstanz von der Hochschule entfernt, die am schlechtesten im Ranking abgeschnitten hat (Rang 46)?

_____ Punkte

Wie viele Punkte ist die Universität Konstanz von der Hochschule entfernt, die am besten im Ranking abgeschnitten hat (Rang 1.)?

_____ Punkte

Wie viele Punkte ist die Universität Konstanz von der Hochschule entfernt, die am mittelmäßigsten abgeschnitten hat (Rang 23)?

_____ Punkte

9.3.2. Control Group

Teil B

Fragebogen zur Darstellung von Ranking-Ergebnissen

In diesem Teil möchten wir herausfinden, welche die bestmögliche graphische Darstellung von Ranking-Ergebnissen ist. Um ihr Interesse zu wecken, haben wir ein Ranking im Hochschulbereich ausgewählt. Im nachfolgenden Artikelausschnitt wird der Inhalt des Rankings beschrieben. Bitte lesen Sie sich diesen zuerst aufmerksam durch.

SPIEGEL ONLINE

24. April 2010, 11:30 Uhr

Ausbildung im Vergleich

Große Unterschiede zwischen den Hochschulen

Viele Studenten sind der Meinung, dass die Auswahl ihres Studienortes eine sehr wichtige Entscheidung war. In der Tat ergaben neueste Studien, dass die Wahl des Studienortes weit reichende Auswirkungen auf das spätere Leben hat. Es konnte zum Beispiel gezeigt werden, dass der spätere finanzielle Status maßgeblich durch die Hochschule beeinflusst wird, an der man seinen Abschluss gemacht hat.

Das *Bundesinstitut für Sozialforschung* beschäftigt sich seit einigen Jahren intensiv mit diesem Thema. In einer neuesten, groß angelegten Studie erfragte man das derzeitige Gehalt von über zehntausend ehemaligen Studenten verschiedener Hochschulen, die bereits 10 Jahre im Berufsleben standen. Aus den erfassten Daten wurde für jede Universität ein so genannter „Verdienst-Wert“ errechnet, der beschreibt, wie es im Durchschnitt um das spätere Einkommen der Absolventen einer bestimmten Universität steht.

Man stellte fest, dass Universitäten, die sich als herausragend in der Forschung erwiesen hatten, ihre Studenten nicht immer auch herausragend auf das spätere Leben vorbereiteten. Alle fünf Fachhochschulen, welche in die Studie eingeschlossen wurden, schnitten im Vergleich zu den Universitäten überdurchschnittlich ab.

Um diese spätere finanzielle Ungleichheit erklärbar zu machen, meldeten sich einige namhafte Vertreter aus diversen wissenschaftlichen Disziplinen zu Wort. Prof. Dr. Thomas Kalthoff, Leiter des Forschungsbereichs Bildungssoziologie an der Universität Heidelberg, sagt hierzu folgendes: „Zentraler Punkt ist die unterschiedliche Qualität der Lehre, oder besser gesagt die unterschiedliche Fähigkeit von Lehrenden verschiedener Universitäten, ihre Studenten auf den späteren Berufsalltag vorzubereiten.“ Hierbei spielen die Aktualität und Praxisrelevanz der Lehrinhalte eine wesentliche Rolle. Prof. Dr. Klaus Wickert, Rektor der FH München und Mitglied des Wissenschaftsrates, fügt weiter hinzu: „Nicht zu unterschätzen ist in diesem Kontext die unterschiedliche Nähe der Hochschulen zu Betrieben und außeruniversitären Einrichtungen. Diese ermöglicht den Studenten für ihre spätere Berufslaufbahn wichtige Kontakte zu knüpfen.“ Ein weiteres häufig hervorgebrachtes Argument betont die wesentliche Rolle, welche die Anzahl an fächerübergreifenden, berufsqualifizierenden Veranstaltungen spielen.

URL: <http://www.spiegel.de/bildung/studium/0,1518,690837,00.html>

Teil B

Bitte betrachten Sie nun die dargebotene Grafik, welche die im Artikel beschriebene Studie veranschaulichen soll, und beantworten dazu die unten stehenden Fragen:

„Verdienst-Wert“ verschiedener Universitäten (Max. Punktezahl: 500)	
Universität	Wert
1. FH Stuttgart	491
2. FH Würzburg	484
3. Uni Heidelberg	475
4. FH München	470
5. Uni Konstanz	456
6. HU Berlin	454
7. LMU München	448
8. FU Berlin	443
9. Uni Augsburg	439
10. FH Münster	430
11. TU Dresden	421
12. Uni Freiburg	415
13. FH Darmstadt	414
14. TU München	407
15. Uni Frankfurt	401
16. Uni Bremen	396
17. Ruhr-Uni Bochum	396
18. Uni Köln	394
19. Uni Göttingen	390
20. Uni Ulm	385
21. Uni Mainz	374
22. Uni Augsburg	371
23. Uni Regensburg	369
24. TU Braunschweig	364
25. RWTH Aachen	362
26. Uni Jena	360
27. FAU Erlangen	356
28. Uni Marburg	345
29. Uni Kassel	344
30. Uni Hamburg	341
31. Uni Magdeburg	332
32. Uni Dresden	327
33. Uni Karlsruhe	327
34. Uni Mannheim	326
35. Uni Passau	322
36. JLU Gießen	306
37. Uni Leipzig	305
38. OFU Bamberg	304
39. Uni Bielefeld	299
40. FWU Bonn	294
41. Uni Greifswald	290
42. Uni Bayreuth	289
43. Uni Lübeck	285
44. Uni Kiel	280
45. Uni Hildesheim	278
46. Uni Paderborn	274

Wie viele Punkte ist die Universität Konstanz von der Hochschule entfernt, die am schlechtesten im Ranking abgeschnitten hat (Rang 46)?

_____ Punkte

Wie viele Punkte ist die Universität Konstanz von der Hochschule entfernt, die am besten im Ranking abgeschnitten hat (Rang 1.)?

_____ Punkte

Wie viele Punkte ist die Universität Konstanz von der Hochschule entfernt, die am mittelmäßigsten abgeschnitten hat (Rang 23)?

_____ Punkte

9.4. Questionnaire – Part C

9.4.1. System Justification Scales – Order: 1,2,3

Teil C

Fragebogen zu unterschiedlichen Einstellungen

Bitte beantworten Sie, wie stark Sie den gemachten Aussagen zustimmen würden:

Unserer Bundesregierung kann darin vertraut werden, dass sie das Richtige tut.

stimme gar nicht zu						stimme sehr zu
①	②	③	④	⑤	⑥	⑦

Unsere Regierung besteht im Allgemeinen aus Personen, die im Interesse aller handeln.

stimme gar nicht zu						stimme sehr zu
①	②	③	④	⑤	⑥	⑦

Jeder, der bereit ist hart zu arbeiten, hat eine gute Chance erfolgreich zu sein.

stimme gar nicht zu						stimme sehr zu
①	②	③	④	⑤	⑥	⑦

Wer hart genug arbeitet, kann sich auch ein gutes Leben ermöglichen.

stimme gar nicht zu						stimme sehr zu
①	②	③	④	⑤	⑥	⑦

Große Unterschiede in der Bezahlung sind notwendig um Menschen zu harter Arbeit zu bewegen.

stimme gar nicht zu						stimme sehr zu
①	②	③	④	⑤	⑥	⑦

Es gibt nur einen Anreiz für individuelle Anstrengung, wenn Unterschiede in der Bezahlung groß genug sind.

stimme gar nicht zu						stimme sehr zu
①	②	③	④	⑤	⑥	⑦

Es ist legitim, Kritik an der Regierung in der Presse einzuschränken, wenn dies notwendig wäre um die Probleme unseres Landes zu lösen.

stimme gar nicht zu						stimme sehr zu
①	②	③	④	⑤	⑥	⑦

Es ist legitim, das Recht von Bürgern einzuschränken, etwas gegen die Regierung zu sagen, wenn dies notwendig wäre, um die Probleme unseres Landes zu lösen.

stimme gar nicht zu						stimme sehr zu
①	②	③	④	⑤	⑥	⑦

Man sollte grundsätzlich bereit sein, sich an Verbesserungen des deutschen Staates zu beteiligen.

stimme gar nicht zu						stimme sehr zu
①	②	③	④	⑤	⑥	⑦

Man sollte grundsätzlich bereit sein, sich an Protesten zu den Bedingungen im deutschen Staat zu beteiligen.

stimme gar nicht zu						stimme sehr zu
①	②	③	④	⑤	⑥	⑦

Teil C

Unser Bildungssystem ist fair.

stimme gar nicht zu						stimme sehr zu
①	②	③	④	⑤	⑥	⑦

Unser Bildungssystem sollte geändert werden.

stimme gar nicht zu						stimme sehr zu
①	②	③	④	⑤	⑥	⑦

Wer in unserem Bildungssystem bereit ist Anstrengung zu zeigen, der kann es weit bringen.

stimme gar nicht zu						stimme sehr zu
①	②	③	④	⑤	⑥	⑦

Wer sich in unserem Bildungssystem genügend anstrengt, der wird später auch einmal viel verdienen.

stimme gar nicht zu						stimme sehr zu
①	②	③	④	⑤	⑥	⑦

Unterschiede zwischen den Universitäten in Deutschland sind notwendig, um den Pluralismus in unserer Gesellschaft zu erhalten.

stimme gar nicht zu						stimme sehr zu
①	②	③	④	⑤	⑥	⑦

Da die meisten Studenten/innen selbst entscheiden können, welche Universität sie besuchen, sind Unterschiede in den Zukunftschancen, die Universitäten ihren Studenten/innen ermöglichen, gerechtfertigt.

stimme gar nicht zu						stimme sehr zu
①	②	③	④	⑤	⑥	⑦

Es wäre sinnvoll, den Qualitätsstandard, den verschiedene Universitäten bieten, anzugleichen.

stimme gar nicht zu						stimme sehr zu
①	②	③	④	⑤	⑥	⑦

Alle Universitäten sollen ihre Studenten/innen in gleichem Maße auf das spätere Berufsleben vorbereiten.

stimme gar nicht zu						stimme sehr zu
①	②	③	④	⑤	⑥	⑦

Man sollte grundsätzlich bereit sein, sich an Verbesserungen des deutschlandweiten Bildungssystems zu beteiligen.

stimme gar nicht zu						stimme sehr zu
①	②	③	④	⑤	⑥	⑦

Man sollte grundsätzlich bereit sein, sich an Protesten zu den Bedingungen des deutschlandweiten Bildungssystems zu beteiligen.

stimme gar nicht zu						stimme sehr zu
①	②	③	④	⑤	⑥	⑦

Teil C

Der Universitätsleitung der Universität Konstanz kann darin vertraut werden, dass sie das richtige tut.

stimme gar nicht zu						stimme sehr zu
①	②	③	④	⑤	⑥	⑦

Die Universitätsleitung der Universität Konstanz besteht im Allgemeinen aus Personen, die im Interesse aller handeln.

stimme gar nicht zu						stimme sehr zu
①	②	③	④	⑤	⑥	⑦

Wer an der Universität Konstanz bereit ist Anstrengung zu zeigen, der kann es weit bringen.

stimme gar nicht zu						stimme sehr zu
①	②	③	④	⑤	⑥	⑦

Wer sich an der Universität Konstanz genügend anstrengt, der wird später auch einmal viel verdienen.

stimme gar nicht zu						stimme sehr zu
①	②	③	④	⑤	⑥	⑦

Man sollte grundsätzlich bereit ein, sich bei Verbesserungen der Bedingungen der Universität Konstanz zu beteiligen.

stimme gar nicht zu						stimme sehr zu
①	②	③	④	⑤	⑥	⑦

Man sollte grundsätzlich bereit sein, sich an Protesten zu den Bedingungen der Universität Konstanz zu beteiligen.

stimme gar nicht zu						stimme sehr zu
①	②	③	④	⑤	⑥	⑦

9.4.2. Final Questionnaire

Teil C

Bitte beantworten Sie nun noch einige abschließenden Fragen:

Wie hat die Universität Konstanz beim Uni-Ranking, laut des dargebotenen Artikels, abgeschnitten?

unteres Drittel Mittelfeld oberes Drittel

Welchen Rang hat die Universität Konstanz beim Ranking belegt?

_____ Rang

Wie viele Punkte hat die Universität Konstanz beim Ranking bekommen?

_____ Punkte

Waren Sie **während** des Experiments der Meinung, dass Studenten/innen der Universität Konstanz später im Durchschnitt einmal weniger verdienen als Studenten/innen anderer Universitäten?

gar nicht						sehr
①	②	③	④	⑤	⑥	⑦

Waren Sie **während** des Experiments der Meinung, dass Sie später im Durchschnitt einmal weniger verdienen als Studenten/innen anderer Universitäten?

gar nicht						sehr
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Wie negativ hat sich das Ergebnis des Rankings **während** des Experiments auf Sie ausgewirkt?

gar nicht						sehr
①	②	③	④	⑤	⑥	⑦

Wie positiv hat sich das Ergebnis des Rankings **während** des Experiments auf Sie ausgewirkt?

gar nicht						sehr
①	②	③	④	⑤	⑥	⑦

Wie überzeugend fanden Sie den Spiegel-Online Artikel, den Sie **während** des Experiments gelesen haben?

gar nicht						sehr
①	②	③	④	⑤	⑥	⑦

Wie seriös fanden Sie den zu Beginn dargebotenen Spiegel-Online Artikel **während** des Experiments?

gar nicht						sehr
①	②	③	④	⑤	⑥	⑦

Wie glaubwürdig fanden Sie den Spiegel-Online Artikel **während** des Experiments?

gar nicht						sehr
①	②	③	④	⑤	⑥	⑦

Wie stark haben Sie sich beim Bearbeiten des Fragebogens angestrengt?

gar nicht						sehr
①	②	③	④	⑤	⑥	⑦

Hatten Sie die Absicht gefasst, realistisch zu urteilen?

gar nicht						sehr
①	②	③	④	⑤	⑥	⑦

Teil C

Waren Sie **während** des Experiments der Meinung, dass das Experiment noch einen weiteren Untersuchungszweck verfolgte als den, der in den Instruktionen vorgegeben war?

Ja Nein

Wenn ja, welchen Untersuchungszweck vermuteten Sie?

Wie alt sind Sie? _____

In welchem Semester/Schuljahr sind Sie? _____

Wenn Sie studieren: Welches Fach studieren Sie? _____

Wenn Sie studieren: Welche Art von Studiengang studieren Sie?

3-jähriger Bachelor 4-jähriger Bachelor Master Diplom Magister

An wie vielen psychologischen Experimenten haben Sie bisher teilgenommen? _____

Haben Sie vor Ihrer Teilnahme an diesem Experiment mit jemandem gesprochen, der bereits an diesem Experiment teilgenommen hat?

Ja Nein

Wenn ja, was wussten Sie bereits von diesem Experiment?

**Vielen Dank für Ihre Mitarbeit!
Die Untersuchung ist hiermit beendet.
Bitte geben Sie alle drei Fragebögen beim Versuchsleiter ab.**