

**Predicting violence among incarcerated juvenile offenders.****The role of strain as a result of fear of fellow inmates**

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This paper is focused on consequences of deprivation of security in youth prisons, measured by items indicating fear of fellow inmates, which is one of the most important dimensions of “pains of imprisonment” described by Gresham Sykes. It will be argued that these pains are risk factors increasing the likelihood of violence towards fellow inmates. Starting from Agnew’s general strain theory, fear of fellow inmates will be identified as one of several negatively-valued stimuli which increase the likelihood of violent behaviour. Results of logistic regressions using longitudinal data of 624 inmates in juvenile custodial institutions in Germany show that the probability of violent offences against fellow inmates increases, the more intensively fear of fellow inmates is experienced. In a similar way, inmates who are member of a clique or who have antagonists among their fellow inmates or officials have a higher probability of violence against fellow inmates. These effects do not disappear if physical conditions, anomic norm orientation and the ability of accommodation are controlled. Following from this, the analysis gives insight into origins of violence among inmates on basis of general strain theory.

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## Introduction

Many descriptions of the situation in prisons suggest that one of the worst things in prison is being condemned to live with other prisoners. Proponents of the prisonization thesis feel confirmed in their argument that bringing together many criminals on limited space creates many opportunities to acquire criminal habits and to exert violence against fellow inmates. Primarily, prisonization refers to a process by which the situation in prison exerts a disadvantageous influence on actual and future criminal behaviour of inmates, mainly due to interaction with fellow inmates. From this point of view, Gresham Sykes (1971) analysed the emergence of inmate solidarity and turned his attention to “pains of imprisonment”. These pains are rendered less severe by forming a socially integrated community, the “society of captives”. But interactions with fellow inmates are highly ambivalent inasmuch they also entail a lot of physical and non-physical violence. Fear of fellow inmates is rather common and, among other factors, it determines the subjective well-being as well as levels of strain.

In the following, it will be argued that the situation in prison, in which an inmate is in fear of his fellow inmates, resembles to conditions described in Agnew’s general strain theory. Fear of fellow inmates refers to the very basic need of physical and psychological integrity – even if fear is only a subjective perception and does not result from manifest occurrences.

In line with the model of prisonization, deprivation of security results in fear of fellow inmates. From the juvenile offender’s point of view, who is incarcerated for the first time, the new situation in prison is obviously a challenge.

It will be argued in this paper that the subjective experience of deprivation of security, measured by items indicating fear of fellow inmates, is a risk factor which increases the likelihood of violence towards fellow inmates. On the basis of Agnew’s general strain theory, fear of fellow inmates will be identified as a negatively-valued stimulus increasing the likelihood of violent behaviour. Results of logistic regressions on basis of a longitudinal prison study show that the probability of violent offences against fellow inmates at measurement occasion 3 increases, the more intensively fear of fellow inmates is experienced at measurement occasion 2. In the same way, inmates who are member of a clique or who have antagonists among their fellow inmates or officials are supposed to experience a process of prisonization.

### **The community of captives**

In his groundbreaking work, Gresham Sykes (1971) described several dimensions of pains of imprisonment. Recent qualitative work has shown that interpersonal relationships among inmates, as well as the subjective perception of these relationships, are important factors influencing pains of imprisonment – in either direction (Bereswill 2004). One response to these pains is a cohesive process, through which the society of captives moves in the direction of inmate solidarity, rendering pains of imprisonment less severe (Sykes 1971: 107). Sykes model is focused on deprivation that results from the situation in prison.

But what are the main characteristics of the “society of captives”?

Using Ferdinand Tönnies’ distinction between two types of social groupings, “society” and “community”, the “society of captives” is obviously more a community than a society. It does emerge under conditions of “defects of total power” (Sykes 1971: 46), where legitimate authority is absent, but where custodians nevertheless depend to some degree on co-operation of the inmates. Custodians try to maintain inmate’s compliance in certain areas at the expense of disobedience elsewhere (ibid: 57), and the result are informal niches where total control is absent.

According to findings of qualitative research, the small community of captives seems to be characterised by mechanical solidarity, as described by Durkheim. In traditional small communities, the dominant mode of communication is face-to-face interaction and justice is overwhelmingly directed towards the subordination of the individual to the collective conscience (Marks 1974). In accordance with Durkheim’s concept of mechanical solidarity, in the community of captives well-regulated strong informal norms are prevalent. Especially the unwritten law of discretion is important among these norms. In many cases, inmates who infringe the rule of discretion and who make formal complaints to authorities about an incident or who betray their fellow inmates (“squealer”) have to be transferred to another institution in the interest of their own safety (Bottoms 1999: 223). Following from this, social norms of the inmate community are more repressive (infraction of a rule calls for punishment) than restitutive (infraction of a rule calls for restitution of the status quo ante) (see Parsons 1937: 318). Such kind of repressive rules is one of the basic features of Durkheim’s distinction between mechanical and organic solidarity. In-

fractions of rules of discretion violate moral sentiments of the community, whose repressive sanctions do not produce any advantage except for the satisfaction of these sentiments (Durkheim 1992: 135) and deterrence.

Nevertheless, inmates are compelled to live together in rooms with limited space which provides many opportunities of violent conflicts. Inmates with comparatively high anomic norm-orientations will have a higher probability of violent offences against their fellow inmates, since they are not willing or able to subordinate to the rigid norm of the community.

Possibly, the subjective perception of the inmate community has an impact on violent behaviour. Especially due to fact that in prison opportunities to escape from the community and its rigid norms are very restricted, a high level of strain might result from fear of fellow inmates. This argument will be elaborated further on basis of Agnew's strain theory.

#### **Fear of fellow inmates as a source of strain**

Robert Agnew's strain theory (Agnew/White 1992; Agnew 2001a; 2001b) starts with the simple assumption that negative treatment by other persons engenders crime and violence in the victim's side. Negative treatment – objective or subjectively perceived – is a synonym for strain. In a very general view, Agnew focuses on three situations in which strain becomes apparent:

A person is prevented from achieving his or her positively-valuated goals by other persons.

A positively valuated stimulus a person possesses is removed by other persons – or, it is threatened to be removed.

A negatively-valued stimulus is presented or threatened to be presented by other persons.

The first situation is an extension of Merton's (1938) version of anomie theory. More interesting for this study is the specific situation in prison and the subjective perception of the inmate community, which can be considered as an ideal type of the latter two situations. As Agnew (2001b: 162) points out, it is sometimes difficult to distinguish both types in practice. Obviously, deprivation of security (Sykes 1971: 76pp) is the same as the presence of a negatively-valued stimulus in terms of threatening fellow inmates. Anyway, fear of fellow inmates is expected to cause high levels of strain since security and physical in-

tegrity are fundamental needs of young prisoners. More precisely, fear of fellow inmates is actually not a *cause* of strain, but already an *indicator* of strain. Strain itself is a rather abstract concept which has to be concretised in the specific meaning of a given situation – which is in our case the community of captives. In other words, the emotional state of being in fear of fellow inmates is a manifestation of strain, conditional of being detained. Albeit these are conditions of “objective strains” (Agnew 2001a: 321) disliked by most persons, fear of fellow inmates refers to a *subjective* perception of conditions. Fear of fellow inmates can be a result of manifest occurrences, but also of “impression management” techniques (Bottoms 1999: 272) adopted by many prisoners as a strategy of survival. Prisoners describe the prison wings as public places, in which role-playing and display of toughness are common (Sparks/Bottoms/Hay 1996: 177). Thus it seems to be more reasonable to find a subjective measure of strain resulting from (perceived) interaction with fellow inmates.

The new entrant into prison should be aware of the fact that his fellow inmates will try to test him in order to see how far they can go. If he is not able to defend himself or his property, he will be considered as an easy victim and further assaults will be the result (Ireland 2005: 134). This line of argumentation is very similar to the “culture of honour” thesis developed by Nisbett and Cohen (1996) with intend to explain differences in homicide rates between the North and South of the USA. The authors emphasise the aspect of masculinity inherent in culture of honour. It is worth thinking about the idea that this culture is a common emergence in spontaneous social orders and low-institutionalized communities of potential offenders.<sup>1</sup> But whatever the meaning of this concept generally is for sociology – being defined as a “vulnerable victim” in prison is one of the worst things that can happen (McDermott/King 1988: 364). Bottoms (1999: 273) concludes that

“ ... from analytic standpoint it would seem that avoidance of the ,vulnerable victim’ status must rank as the highest priority for comfortable survival in the inmate world. If that is right, the successful ‘survival strategies’ inevitably seem to court some risk of violent victimization.“

These survival strategies imply immediate responses to insults, which can easily result in violent conflicts. If conflicts become unavoidable, for example between different ethnic

groups, social stress will turn into extreme fear, which an inmate quoted by Sparks et al. described as “‘looking over your shoulder twenty-four hours a day’ ” (Sparks/Bottoms/Hay 1996: 177).

Agnew’s general strain theory has been criticised for not having sufficiently specified the types of strain most likely to lead to crime and violence. In a more recent article, Agnew argues that strain leads most likely to crime “... when it is seen as unjust, is seen as high in magnitude, is associated with low social control, and creates some pressure or incentive to engage in criminal coping” (Agnew 2001a: 347). In prison, a situation in which an inmate perceives his physical or psychological integrity as being threatened by his fellow inmates, strain obviously is high in magnitude. The situation is associated with low social control in unwatched niches,<sup>2</sup> and it stimulates violent behaviour if norms of discretion in the inmate community inhibit involvement of custodians. Above all, the prison environment offers rare opportunities of physical escape from aggressors, whereby strain will be even magnified. Moreover, if incarcerated offenders have not been made aware of the harm they have caused (Agnew 2001a: 352), the situation will be perceived as unjust as well.

In a recent paper on bullying among prisoners, Ireland (2005: 138) has outlined four types of reaction to bullying among prisoners. The first type is *self-injurious behaviour*, which is a way of communicating distress to custodians without making a formal complaint.

Secondly, Ireland made an interesting point in drawing attention to bully-victims who do not decide in favour of “flight”, but of “*fight*” instead. From the inmates point of view this seems to be a sensible reaction, because it is less stigmatizing to be considered as a victim who is prepared to defend himself, at least. Moreover, it has already been mentioned that the prison environment offers not many opportunities to escape and the inmate code of ‘not grassing’ makes possible that victims live in close proximity to their ag-

<sup>1</sup> McCorkle (1992: 166) quotes an inmate who described the “getting tough” in order to avoid victimization: “You have to show you’re a man, not just talk about it. You got to bust their heads. You have to get violent with them before they’ll leave you alone”.

<sup>2</sup> Bottoms (1999: 242) points at the role of the architecture of the prison building which corresponds with opportunities of violence among inmates. Prisoners regard the shower areas as the most unsafe part of the prison. These are areas of low social control.

gressors. Hence, "(...) these fight responses replace the flight response and are largely motivated by fear" (Ireland 2005: 140).

In contrast, a variant of a "flight" reaction under the specific conditions in prison environments can be the *avoidance of fellow inmates*. The prisoner stays in his cell when he could leave it, and he minimizes the amount of time spent with other inmates and avoids specific areas of the prison building.

Finally, *role-playing* increases the probability of committing violent offences rather indirectly. This reaction type is one of three components of the "aggressive precaution" scale applied in a study by McCorkle (1992). McCorkle also found a positive effect of fear of fellow inmates on this index, though fear had an even higher positive effect on the "passive precaution index". But "getting tough" as a method of preventing victimization implies also the flip side of the coin if other inmates perceive role-playing as provocative. Consequently, the probability of violent conflicts might increase due to role-playing as well.

Being confronted with the unfamiliar situation of first incarceration, the experienced level of strain could be comparatively low if an inmate was able to apply the strategy of *accommodation*. Accommodation is a coping resource widely investigated in the field of adaptive functions in later life. The concept has been defined in contrast to *assimilation*:

"In contrast to assimilative processes, which involve maintenance of goals and ambitions, the defining feature of accommodative processes is the flexible adjustment of preference structures to situational constraints" (Brandstädter, Rothermund, Schmitz 1998: 373).

Compared with adolescents' life styles outside of prison, situational constraints in terms of pains of imprisonment require an adjustment of aspirations and behaviour. Otherwise, maladjustment would result in high levels of strain. Accommodative flexibility is a functional response to an uncontrollable and irreversible process of losing action resources (ibid.: 377). This uncontrollability and irreversibility is exactly what juveniles experience during first incarceration. In a recent study, this concept has been successfully applied to the explanation of coping processes of first-time incarcerated juvenile offenders (Greve/Enzmann 2003). Hence, accommodation is a coping resource that could reduce strain. As a result, violence towards inmates should decrease with increasing ability of accommodation. On the other hand, one could argue that becoming a violent offender in

prison can be a way of accommodating to the new situation. Indeed, in the short run, adopting violent behaviour might also be an outcome of accommodation. However, a closer look at the items of the accommodation scale (see appendix) shows that their meaning is rather defensive. So at least in the long run, the coping resource is expected to reduce the probability of violent behaviour.

Another coping resource could be a high level of intelligence (Formann/Piswanger 1979) insofar as more intelligent prisoners are able to figure out that their fellow inmate's "getting tough" is nothing more than role-playing. If so, then the perception of inmates' behaviour should not produce the same level of strain compared to persons who do not dispose of this ability.

### Hypothesis

With reference to Agnew's strain theory, and in consideration of anomic norm-orientations in the "community of captives", the following hypothesis can be derived:

H1: The higher the *fear of fellow inmates*, the higher the probability of violence against fellow inmates.

H2: The higher the *anomic norm-orientation*, the higher the probability of violence against fellow inmates.

H3: The higher the ability of *accommodation*, which can be considered as a coping resource, the lower the probability of violence against fellow inmates.

H4: Having *antagonist among inmates or officials*, of whom the detainee cannot escape, is a source of strain and increases the probability of violence against fellow inmates.

H5: The probability of violence decreases with *higher intelligence*.

In doing so, it is important to control the opportunity structure of violence against fellow inmates (Wooldredge 1998). Avoidance behaviour or "flight" reactions, in terms of self-isolation, are assumed to be sensible reactions to fear of fellow inmates. Those fearful inmates who make successfully use of this strategy do not have an increased probability of violent behaviour against inmates. For this reason, a scale measuring "need for privacy" in terms of isolation from fellow inmates should be controlled in the model. In addition, a dummy variable indicates if the inmate is integrated into a clique. Sub-cultural activities

in inmate's clique provide many occasions to violate rules of the community or to get into trouble.

Moreover, the level of strain might increase enormously if inmates report that they have antagonists among fellow inmates or prison officials. To a certain degree the effect of having antagonists among inmates on violence against them is confounded with fear of fellow inmates. Having antagonists should motivate an agreement to the item "you often have to be alert to your cell mates". Hence, it seems to be advisable to control for a binary indicator which measures the existence of antagonists.

### Data

The data set of the Hanover Prison Study (Greve/Enzmann 2003, Greve/Hosser/Pfeiffer 1997) consists of 2405 juvenile offenders, who have been younger than 21 years at time of offence. Male German juvenile prisoners at age 14 to 21 who were incarcerated for the first time in prisons in the federal states of Hamburg, Bremen, Lower-Saxony and Saxony-Anhalt formed the basic population. From 1998 to 2001, data of any new entry in these juvenile custodial institutions has been continuously collected. The response rate varied from 85.9% to 96.1% between custodial institutions (Enzmann/Greve 2001: 113). The researchers aimed at interviewing 2108 of these inmates three times during the period of custody. Unfortunately, there was a high level of panel attrition from the second to the third interview, which was mainly due to administrative reasons. For 762 inmates, three interviews could be realized. The analysis presented in the following is based on three measurements of each subject made during the period of incarceration. This will be important since some causal interpretations will be made in this analysis, which otherwise would not be justified to the same degree.

According to item non-response and deletion of the most influential cases (according to Cook's D measure), the sample has been further reduced to 642 cases. It should be mentioned that after deletion of 18 influential cases, the  $R^2$  measure (McKelvey and Zaviona, see Long 1997: 105) increased from 19% to 29 % and the final estimation is based in  $N=624$  cases.

The outcome variable is self-reported serious bodily harm offences against inmates with or without weapons. When we interpret the results, it is important to bear in mind the longitudinal structure of the data which consists of three measurement occasions dur-

ing the period of incarceration. Anomic norm-orientation is measured immediately after entry into prison (T1) and can thus be considered as an imported characteristic (Harer/Steffensmeier 1996). The same is true for IQ, which is a trait and has thus been determined at time of entry into prison. Furthermore, also physical dispositions like body height and physical weakness (self-perception in comparison with fellow inmates) are pre-conditions measured at T1.

**Table 1:** Descriptive Statistics, N=624 (see description of items in appendix)

	wave	mean	Stddev.	Min.	Max.
mean probability of violent offences	T3	0.29	--	--	--
age at incarceration in years	T1	19.51	1.91	15	26
sentence to serve in months	T1	18.62	11.27	4	96
ln( sentence to serve in months)	T1	2.76	0.57	1.38	4.56
<i>physical conditions</i>					
body height in cm	T1	179.10	7.33	158	200
physically weak (self perception) (1=yes)	T1	0.08	--	0	1
integration into clique of inmates (1=yes)	T2	0.26	--	0	1
antagonists among inmates/officials (1=yes)	T2	0.29	--	0	1
<i>Social and mental dispositions</i>					
need for privacy (0–100%)	T2	35.67	18.29	0	100
fear of fellow inmates (0–100%)	T2	45.66	26.30	0	100
anomic norm orientation (0–100%)	T1	41.62	17.20	8.97	88.42
accommodation (0 – 100%)	T2	61.14	16.03	0	100
IQ	T2	94.83	15.22	61.41	142.05
<i>Institutions of custody</i>					
Goettingen (open prison)	T2	0.13	--	0	1
Halle (Eastern Germany)	T2	0.39	--	0	1
other institutions (Hameln, Vechta, Hamburg)	T2	0.48	--	0	1

At time T2, accommodation, in terms of flexible goal adjustment, and all other mental or social dispositions have been measured. The same is true for having antagonists among inmates or officials and being member of a clique. Finally, the outcome variable is a binary indicator of whether the captive has committed a serious violent offence against his inmates during the last three months or not. It has been asked for in the third measurement occasion.

In most cases, the first interview has been conducted immediately after incarceration, the second interview around eight weeks after the first interview, and the third interview close as possible to release.

Except for IQ which has been measured by the Vienna Matrices Test (Fornmann/Piswanger 1979), all social and mental dispositions are measured by scales consisting of several items. Any scale measures one single dimension and overall the reliability of these scales is at least satisfying (see Appendix).<sup>3</sup> Table 1 shows descriptive statistics of the analysis presented in table 2.

## Results

In table 2, effects of explanatory variables on violent offences against fellow inmates are reported. The first column shows effects on odds ratios, the second column shows discrete unit effects of variable  $x_k$  on the probability of offending, at mean of all other explanatory variables  $\bar{\mathbf{x}}$  (Long/Freese 2003: 142). Formally, the change in the probability of the dependent variable for a discrete change in the explanatory variable  $x_k$  of one unit equals the following expression:

$$\frac{\Delta \Pr(y = 1 | \bar{\mathbf{x}})}{\Delta x_k} = \Pr(y = 1 | \bar{\mathbf{x}}, \bar{x}_k + 0.5) - \Pr(y = 1 | \bar{\mathbf{x}}, \bar{x}_k - 0.5)$$

In this expression, the probabilities Pr are computed using the logistic link function. All explanatory variables are held constant at their mean values and for each variable of interest, the result of a change from mean value minus 0.5 to mean value plus 0.5 is computed. In contrast to the odds and log-odds interpretation, discrete unit effects give a correct interpretation of how the predicted probability changes if the explanatory variable of interest changes by one unit (Petersen 1985).

The model controls for indicators of physical strength, which should not be neglected in research on violence in prisons. One more centimetre in body height increases the probability of violent behaviour by 1 percentage point. Prisoners who consider themselves to be physically weak – in comparison with their fellow inmates – have a 29 percentage points lower probability of violence.

More important, we see that anomic norm orientation has a positive effect on violence against fellow inmates. Anomie has a comparatively strong impact on violent behaviour,

<sup>3</sup> One could argue that the scale fear of fellow inmates rather were a measure of the custodial institution's „climate“ than of the fear. On the other hand, face validity of the three items used to construct the scale seems to be obvious (see appendix). And even if the scale measured climate, a positive effect of an aggressive climate would be line with strain theory as well.

as we have expected. The probability of committing a violent bodily harm offence increases by 0.3 percentage points as anomie changes by one percentage point.

With regard to Agnew's strain theory, first of all we expected fear of fellow inmates to have a positive effect on violence. Indeed, this seems to be the case: one percentage point increase in fear shifts the probability of violence by 0.2 percentage points. Because the effect of fear of fellow inmates on violence depends on the opportunity structure, which can permit violent interaction to lesser or larger degree, also "need for privacy" and "integration into clique of inmates" have been controlled. Thus, those who avoid contact with inmates at time 2 have a lower probability of assaulting them violently at time 3. Inmates integrated into a clique have an 11 percentage points higher probability of committing a violent assault than those who are not integrated.

**Table 2:** Determinants of violent behaviour against fellow inmates (**T 3**). Effects on serious bodily harm offences, binary logistic regressions.

	model 1 odds ratios	model 2 odds ratios	discr. unit effects on P(y=1   X)
age at incarceration in years	0.837***	0.844***	-0.031
ln( sentence to serve in months)	1.657***	1.654***	0.094
<i>physical conditions</i>			
body height in cm	1.052***	1.054***	0.010
physically weak (self perception) (1=yes)	0.212***	0.211***	-0.289
integration into clique of inmates (1=yes) (T2)	1.758**	1.864***	0.117
antagonists among inmates/officials (1=yes) (T2)	2.933***	2.997***	0.205
<i>social and mental dispositions</i>			
need for privacy (0–100%) (T2)	0.980***	0.981***	-0.003
fear of fellow inmates (0–100%) (T2)	1.014***	1.013***	0.002
anomic norm orientation (0–100%) (T1)	1.016***	1.016***	0.003
accommodation (0 – 100%) (T2)	0.972***	0.972***	-0.005
IQ (T2)	1.004	--	--
<i>institutions of custody</i>			
Goettingen (open prison)	0.921	--	--
Halle (Easter Germany)	0.817	--	--
other institutions (Hamel, Vechta, Hamburg)	reference	--	--
mean probability			0.29
Observations	624	624	
LR $\chi^2$ (df)	128.21(13)	126.97(10)	
McKelvey and Zavoina's R <sup>2</sup>	0.295	0.292	

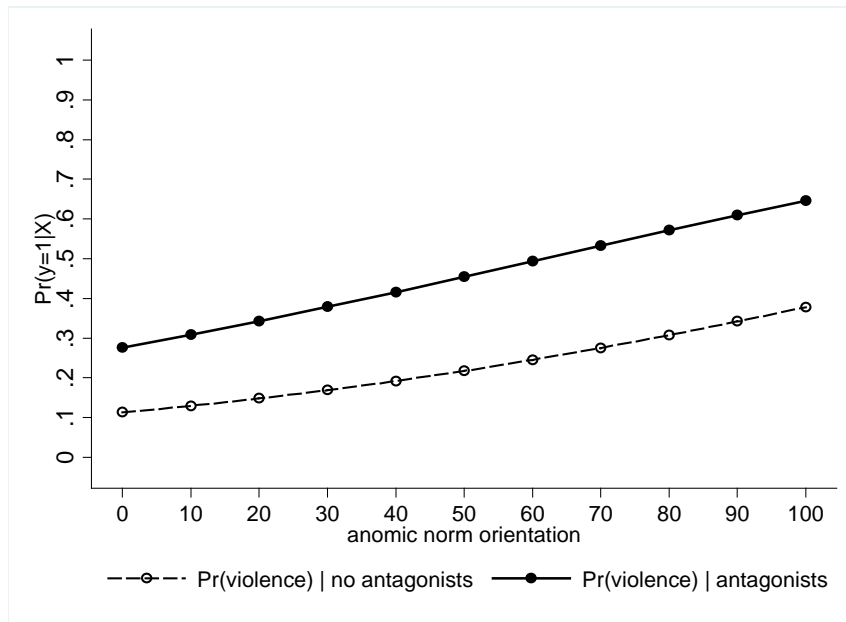
\* significant at 5%; \*\* significant at 1% \*\*\* significant at 0.1%.

Discrete unit effects of one unit change at mean values of all explanatory variables

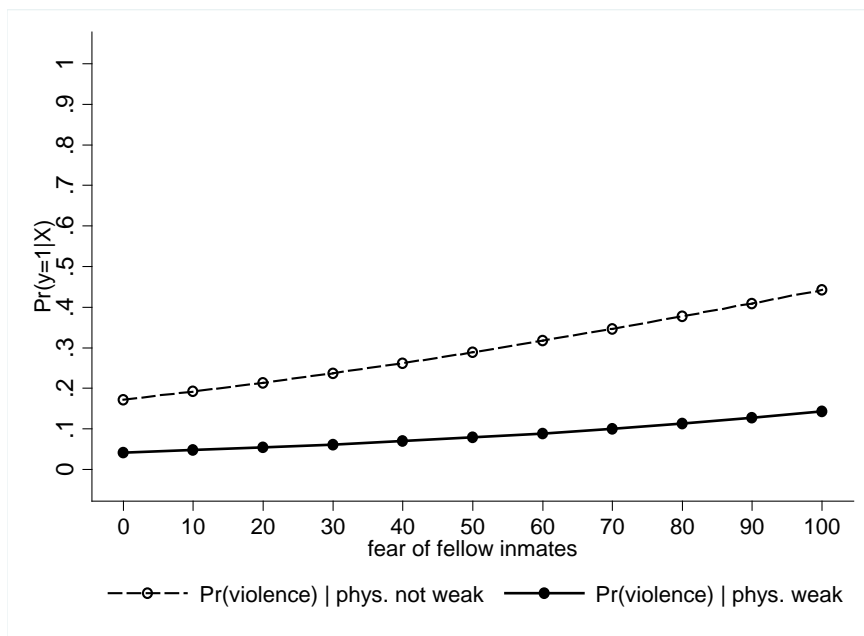
We also get a comparatively large effect of having antagonists among inmates or officials. Those who do have antagonists have a 20 percentage points higher probability of violence. Given that the situation in prison does not permit many opportunities to escape from antagonists, high levels of strain might be the result, which in turn increase the probability of violence.

Finally, it should be mentioned that any of these impacts of indicators of strain on violence are significant, even if “accommodation” – the capacity of flexible goal adjustment as a coping resource – has been controlled. One percentage point increase in accommodation decreases the probability of violence by 0.5 percentage points.

**Figure 1:** Conditional effect plot: Effects of “anomic norm orientation ” and “antagonists among inmates or officials” on violence (model 2)

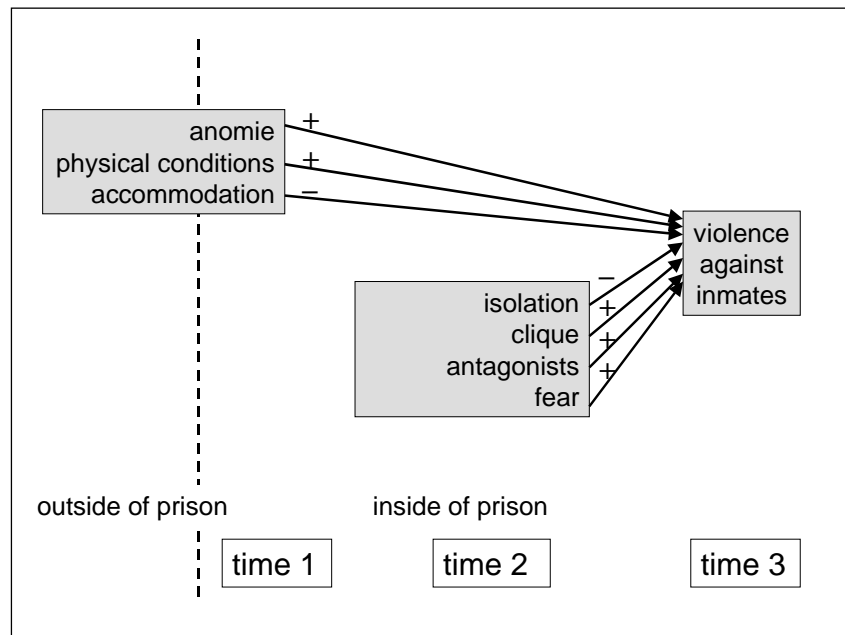


**Figure 2:** Conditional effect plot: Effects of “fear of fellow inmates” and “physically weak” on violence (model)



Figures 1 and 2 are just illustrations of the effects of fear of fellow inmates, having antagonists among inmates or officials, of being physically weak and of anomic norm orientation on violent behaviour. The conditional effect plots show to which extent the probability of violence increases with increasing values of the explanatory variables, according to the non-linear logistic regression model.

**Figure 3:** Determinants of violence among incarcerated juvenile offenders



If we relate these results to the effects hypothesised in section 4, we will see that only one of our hypotheses could be rejected. Only the non-significant effect of intelligence on violent behaviour is inconsistent with our expectations. The remaining significant effects are summarized in figure 3. In this figure, explanatory variables at the left side of the dashed line are considered as rather determined at time of entry into prison and thus refer to characteristics imported from the outside of prison. This is not definitely the case for the ability of accommodation because this coping resource has not been measured immediately after entry into prison, but at time T2. In the theoretical discussion, it is not determined whether the capability to revise and to readjust personal preferences is a personal trait or whether it depends on situational characteristics. As Brandtstädter and Renner argue (1990: 61), the activation of accommodative strategies depends

“(...) on situational parameters, such as perceived controllability and personal valence of the critical events, as well as on generalized behavioural tendencies that reflect differences in prior learning history, competence, and personality traits”.

At least the trait-component of accommodation should be considered as a resource imported into prison, meaning that in this respect, juveniles start their periods of incarceration from different levels of this coping resource.

## **Conclusion**

In this study it has been shown that theoretical considerations and empirical results confirm the idea that violence against fellow inmates results from strain. Strain has been measured by the level of fear of fellow inmates and other explanatory variables. But it has also been demonstrated that personal characteristics imported into prison determine the way of how juveniles experience interactions with their fellow inmates. First, they bring along norm orientations which facilitate or complicate integration into the community of captives. Empirical results have demonstrated that the association of anomie with delinquent or violent behaviour also holds true for inmates in a juvenile custody. Anomic norm orientations juveniles bring with them into prison (measured at T1 immediately after entry into prison) have a positive impact on violence against their fellow inmates. Secondly, some of them are endowed with the capability of coping with the unfamiliar situation in prison. We have seen that the capability of accommodation (or flexible goal adjustment) reduces the likelihood of violent behaviour. Even if accommodation is controlled in the model, fear of fellow inmates maintains its significant effect.

Overall, proponents of the prisonization approach would interpret these findings as a result of what prison does with juvenile offenders. Indeed, there are several factors which emerge only under conditions of imprisonment. Especially being integrated into a clique of inmates and having antagonists among inmates or officials have a strong impact on the probability of violent behaviour. Moreover, physical dispositions like body height and being physically weak are important preconditions of how violently the period of incarceration will be experienced. But in contrast to our expectations, intelligence does not prevent an inmate to offend his fellows.

In the literature it has often been mentioned that interactions in prison are characterised by role-playing and display of toughness. If avoidance of stigmatization is a very high

priority for each prisoner and getting tough or fighting back is a means of doing so, it is not surprising that fear of fellow inmates increases violence among inmates. As expected, such an effect has been revealed in the empirical analysis. But it must be mentioned that other determinants of violent offences like anomie, having antagonists and being not physically weak do have even stronger effects, as shown in figures 1 and 2. Nevertheless, practitioners should think about measures of intervention into the problem of fear of fellow inmates.

One point of the theoretical argumentation was to confront the prisonization thesis with arguments of the importation model. As shown in figure 3, anomie as an imported norm orientation has been revealed as a strong predictor of violent behaviour. But in sum, it can be concluded that both processes – importation and prisonization – should always be considered simultaneously if behavioural outcomes of imprisonment are objects of investigation. Anyway, high levels of strain occurring under the specific conditions in juvenile custodial institutions have an impact on violence – that should not be neglected in research and practice. The longitudinal character of the Hanover Prison Study seems to be very promising and further research should figure out more in detail the moderating effects of imported characteristics on the process of prisonization.

### **Appendix: measurements**

Coding of all items: 1: disagree, 2: rather disagree, 3: rather agree, 4: totally agree

Fear of fellow inmates (see Ortmann 2000) , alpha = 0.709

There are inmates here who really scare you.  
 You often run the risk of being bashed in here.  
 You always have to be alert to your cell mates.

Suffering from restrictions of autonomy (see Ortmann 2000), alpha= 0.826

Inmates are treated like infants here.

In here you cannot even decide on trifles.

Many rules and regulations in here just exist to put the inmates down.  
 None of us has any influence on the way we are treated here.

Many regulations in here exist only in order to break inmates personalities.

I'm feeling totally at the mercy of the institution

In prison, almost everything is forbidden.

From morning to night you are kept in leading-strings here.

In prison I feel like a number and not like a human being.

Need for privacy (Seitz 1983),  $\alpha = 0.804$

I prefer to work alone and not to work in a group of inmates

During leisure time I prefer to stay on my own and not to stay with inmates

I prefer to have my meal by myself in my prison cell

I like to be with other inmates

I think in here it's good to be on your own and to have no friends

I like to talk to inmates

I would like to be with others in several leisure groups

I'm happy to have very close contact to some inmates

Anomic norm orientation (Seitz 1983),  $\alpha = 0.762$

If you are cold-shouldered by society, you have to take yourself what is yours

My friends agree to the opinion that it is worth breaking the law in order to get ahead

It is no problem to break the law as long as nobody will be harmed

It is worth braking the law in order to get ahead

One should really respect somebody who is clever enough to break the law without being caught

Accommodation (flexible goal adjustment) (Brandtstätter et al. 1998),  $\alpha = 0.691$

In my life, even the worst disaster does make sense

Even if something goes totally wrong, somewhere I find some little progress

In general, I notice pretty well when I reach my limits

If I have a wish which can't be fulfilled, in my view this is not a reason to be desperate: there are still other things in life.

I am able to find an advantage even in uncomfortable situations

Even if anything seems to be hopeless, I still look for a way to master the situation

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