Soziale Probleme und Jugenddelinquenz
im sozialökologischen Kontext

Social Problems and Juvenile Delinquency in Ecological Perspective
DFG-Projekt der Kriminologischen Forschungsgruppe, Max-Planck-Institut Freiburg

working paper / No. 3

Dietrich Oberwittler

**Neighborhood cohesion and mistrust - ecological
reliability and structural conditions**

Max Planck Institute for Foreign and International Criminal Law Freiburg/Germany

Working papers of the project 'Social Problems and Juvenile Delinquency in Ecological Perspective' at the Max Planck Insitute for Foreign and International Criminal Law / No. 3

Dietrich Oberwittler (d.oberwittler@iuscrim.mpg.de)

Neighborhood cohesion and mistrust - ecological reliability and structural conditions

December 2001

More information and online papers are available at:
www.iuscrim.mpg.de/de/forsch/krim/oberwittler1.html

Dietrich Oberwittler

Neighborhood cohesion and mistrust - ecological reliability and structural conditions[1]

Introduction

Social cohesion and social disorganization of neighborhoods have long been recognized in sociological research as crucial elements of community processes and urban development. How people perceive their neighborhoods and how they behave in them is closely related to urban structural conditions and may in turn have important consequences for many aspects of urban development. For example, the social capital of residents depends on the level of cohesion and socializing among neighbors. A sense of community shared by many residents contributes to the overall quality of life in a neighborhood; a lack in social cohesion may aggravate problems of disorder and disorganization, subsequently promoting filtering down processes of neighborhoods.

Following the pioneering work of Kasarda and Janowitz (1974) and Hunter (1975), there is a lot of recent empirical research on the measurement and explanation of community attachment, cohesion, disorganization and related concepts (Woolever 1992; Buckner 1988; Schweitzer 1995, Sampson et al. 1997). With his book "Bowling Alone" (2000), Robert Putnam has made the notion very popular that recent societal changes have resulted in a dramatic loss of community cohesion and social capital. A special focus of recent research is on the relevance of neighborhood characteristics for child and adolescent development (Jencks and Mayer 1990; Furstenberg and Hughes 1995; Brooks-Gunn et al 1993; Sampson et al. 1999; Duncan and Raudenbush 1999).

Disorder and crime are one of the topics frequently linked to community processes. Do disorder and crime have a negative impact on the social fabric of neighborhoods, and do socially disorganized neighborhoods promote disorder and crime? Several theoretical approaches, from classic social disorganization theory to broken windows theory try to explore the community dimensions of disorder and delinquent behavior (Bottoms and Wiles 1997; Bursik and Grasmick 1993; Wikström 1998). In the view of classic Chicago School,

---

social disorganization of neighborhoods caused by structural disadvantage reduces the collective capacity of residents to control and reduce delinquent activities (Shaw and McKay 1942). This approach has been modernized and elaborated by Sampson et al. in their concept of 'collective efficacy' (Sampson et al 1997, 1999). Recent research has shown that causal relationships between disorder/crime and community processes are likely to be complex and reciprocal (Skogan 1990; Bellair 2000; Liska and Warner 1991; Warner and Rountree 1997; Taylor 1996).

The ongoing research project 'Social Problems and Juvenile Delinquency in Ecological Perspective' intends to contribute to this research field by focussing on individual and neighborhood-level influences of juvenile offending in two German cities and an adjacent rural area (Oberwittler 1998, 2001). Following the concept of collective efficacy, neighborhood cohesion and informal social control are thought to exert influences on adolescents' behavior. Data collection for this project include a youth survey on self-reported delinquency and a community survey, both conducted in a sample of about one hundred census tracts in Cologne, Freiburg and an adjacent rural area.

This paper presents two short scales which are part of the community survey designed to measure neighborhood social cohesion and mistrust which will be used in later multilevel analyses to identify ecological context effects on juvenile delinquency. Following recent methodological advances in the field of 'econometrics' (Raudenbush & Sampson 1999), Hierarchical Linear Modeling (HLM) is used to estimate the neighborhood-level reliability of scales and to analyze their structural antecedents. The central question here is whether neighborhood cohesion and mistrust really are properties of the neighborhood which are perceived and reported by respondents roughly in the same way independently of individual factors. HLM also serves to explore the role of neighborhood structural conditions in the explanation of social cohesion and social mistrust relative to individual-level factors. Do neighborhood structural conditions add to the explanation of cohesion and mistrust net of individual structural conditions? Finally, data from the youth survey on self-reported delinquency is linked to the community survey to look at the correlations between neighborhood social climate and juvenile delinquency.

Data

Data used in this paper are taken mainly from a community survey conducted by the
Statistical Office of Freiburg in 1999. Freiburg is an university town with 200.000 inhabitants
situated in south-western Germany. For this postal survey, a random sample of 5011 residents
aged 18 and older were drawn, the response rate was 49,6%. The final sample size is
N=2487, 2331 of whom were residing in 20 neighborhoods with more than 30 respondents; 6
neighborhoods were omitted because they had less than 30 respondents. Data reported in this
paper served as a kind of pretest for a new and larger community survey which was
conducted in Spring 2001 in Cologne, Freiburg and an adjacent rural area in more than 100
census tracts as part of the research project 'Social Problems and Juvenile Delinquency in
Ecological Perspective'; data of this new survey are not yet available.

      Youth survey data used in _table 6_ come from the 'MPI Youth Survey 1999/2000'
conducted in Cologne, Freiburg and an adjacent rural area. This survey was realized as a
school survey employing self-administered questionnaires. In Freiburg, about 1.900 8th to
10th-grade students (mainly 13 to 16 years old) took part in the survey, representing 86% of
all students enroled in the selected classes. Of these, 1.450 were residing in the City of
Freiburg, and 1.290 in those neighborhoods where 30 or more persons responded to the
community survey.

Measures

A five-item scale labeled 'social cohesion and trust' being one of two parts of the 'collective
efficacy' scale by Sampson et al. (1997) was adopted and modified for the purpose of our own
research _(table 1)_. Sampson et al. describe their construct as 'mutual trust and solidarity
among neighbors' (1997: 919) and as 'knowing and trusting each other and having shared
values' (Raudenbush and Sampson 1999: 9). The same or very similar items have been used
in other operationalizations of neighborhood cohesion (Buckner 1988; Kim and Schweitzer
1996). Two items were added to the scale which explicitly tap the perception of disorderly
attitudes and habits of neighborhoods ('people around here don't care what their children are
doing', 'people in this neighborhood have no respect for law and order'). Both items express,
as does one of the original items ('people in this neighborhood do not share the same values'),

a dissatisfaction with and a dissociation from one's neighbors on the ground that their behavior is directed against common norms and interests.

Contrary to the single 'social cohesion and trust' scale of Sampson and his collaborators, a factor analysis of these seven items (alpha factoring, oblimin rotation) performed at individual data level provided support for a two-factor solution with a strong correlation between the two factors (r=-.52). The correlation of factors on the aggregate level of neighborhoods is even stronger (r=-.80). Communalities of all items are considerably higher in the two-factor solution (around .5 to .7 compared to around .3 to .5), and the proportion of explained variance is 51% compared to 38% in a single factor solution. One of the items of the 'social cohesion and trust' scale ('people in this neighborhood generally do not get along with each other') does not load well on either factor and was omitted in further analyses. This may be due to changes in the meaning of the item caused by the translation into German.

While a single factor solution may also be justified by theory and empirical results, the two-factor solution clearly is preferable and may have its advantages. Compared to the 'social cohesion and trust' scale by Sampson et al., adding two items on perceptions of disorderly behavior may have slightly pushed the scale into a different direction, i.e. the observation of disorder and crime (see below). However, the meaning of Sampson et al.'s item 'people in this neighborhood do not share the same values' is not so far away from the meaning of the two added items, as is underlined by strong correlations among these three items and high loadings to the common factor. Regression models presented below show that there is enough evidence for discriminative validity to justify splitting the scale into two sub-scales which are now labeled 'social cohesion' and 'social mistrust'. While 'social cohesion' can be described as closeness and solidarity among neighbors who know each other well, 'social mistrust' is a state of dissatisfaction with one's neighbors on the ground that their behavior is directed against common norms. Ross et al. (2001: 569) similarly describe their understanding of mistrust as 'the cognitive habit of interpreting the intentions and behavior of others as unsupportive, self-seeking, and dishonest'.

Ecological reliability

Standard 'psychometric' evaluation techniques like Cronbach's alpha ignore the ecological

dimension of neighborhood scales which are designed to assess properties not of individuals but of collective entities. As part of their concept of 'econometrics', Raudenbush and Sampson (1999) propose the use of intraneighborhood correlation coefficients (ICC) and reliabilities for neighborhood-level measures. ICC measures the ratio of between-neighborhood variance to the sum of between- and within-neighborhood variance similar to standard analysis if variance (one-way ANOVA). The reliability measure additionally depends on the number of respondents in each neighborhood (Bryk and Raudenbush 1992: 63).

Variance components, ICCs and reliabilities have been computed in HLM 5. Results in _table 2_ show that the ICC, that is the proportion of variance attributable to the neighborhood-level, is around 15% for both sub-scales. This means that the variability of respondents' perceptions is to a considerable extend due to neighborhood differences. As a comparison, Raudenbush and Sampson (1999: 8) report an even higher ICC of 21% for the 'social cohesion and trust' scale in their Chicago study. However, due to the large number of respondents in the Freiburg community survey, reliabilities are much higher (.94 for both sub-scales) than reported for Chicago (.80). Raudenbush and Sampson (1999: 9) conclude that only a moderate sample size of about 30 respondents in each neighborhood is sufficient to yield reliable measurements of neighborhood properties.

Interestingly, a comparison of both sub-scales with related concepts show that 'night fear' ('how safe do you feel being out alone in your neighborhood at night?') - a widely used standard item of fear of crime - also has a considerable proportion of variance at the neighborhood-level (10%) which gives support to the assumption that fear of crime is influenced not only by individual but also by neighborhood characteristics. Perkins and Taylor (1996: 91) report that 17% of variance of 'fear of crime' was on the neighborhood level in a study of Baltimore neighborhoods.

In contrast to these measures which all reflect some kind of observations of the neighborhood, 'local participation' – an index of the number of respondents' activities – does not have a relevant share of variance at the neighborhood level (1%), and neighborhood-level reliability is quite low (.50). This marked difference is to be expected because here, respondents do not assess their common neighborhood but report on their individual behavior.

In sum, the assessment of neighborhood measures shows that a considerable proportion of variance is located at the neighborhood level and that ecological reliability of

these measures is satisfactory.

Structural correlates of neighborhood cohesion and mistrust

To explore the structural correlates of neighborhood social cohesion and mistrust, first bivariate correlations on the aggregate level of neighborhoods have been computed *(table 3* for descriptives of variables*, table 4* for a correlation matrix). As already reported, both sub-scales are highly correlated with each other (r=-.80). The same is true for related neighborhood measures taken from the same survey. Both 'night fear' and 'general satisfaction with neighborhood' are connected even more strongly with social mistrust (r=.88 resp. r=-.82) than with social cohesion, hinting at a possible association of all three measures with he perception of disorder/crime.

Correlations with structural conditions provide evidence for discriminative validity of the two sub-scales. Both residential stability and the percentage of unmarried persons correlate moderately with social cohesion but have no bearing at all on social mistrust. Neighborhoods with many singles and low residential stability have more difficulties to establish closeness and mutual solidarity among their residents, yet these structural factors do not lead to mistrust or even fear. This constellation applies for example to neighborhoods in which many students are living whose sense of community is typically low. The percentage of 1 or 2 family houses (as opposed to apartments, flats and council estates) alone accounts for 83% of the aggregate level variance of social cohesion (r=.91). By social science standards, this is a very high degree of association and much higher than its correlation with social mistrust (r=-.74, 55% of variance). While the percentage of 1 or 2 family houses is clearly an indicator of SES, it also reflects historical settlement pattern. The municipality of Freiburg encompasses a number of formerly independent rural villages with no or little urban architecture where social cohesion is traditionally high. The percentage of welfare recipients (which in the absence of income data serves as the main indicator of social disadvantage) has only a moderate negative influence on social cohesion (r=-.47). Social mistrust, on the other hand, is most strongly influenced by the percentage of welfare recipients (r=.80), of ethnic minorities (r=.76), and also by the percentage of 1 or 2 family houses (r=-.74). As all these

variables tap some dimension of SES, social mistrust seems to flourish in neighborhoods with high levels of social disadvantage.

As a next step of analysis, hierarchical linear regression models have been computed in HLM 5 to look to the relative impact of structural variables, and to disentangle individual and neighborhood-level influences on community outcomes *(table 5)*. Looking to social cohesion first, four individual level variables have significant influences on the outcome variable, yet accounting for only 5% of the variance on the individual level. Older residents, people residing for more years in the same neighborhood, people living together with children, and people taking part in local activities as clubs or volunteering work perceive their neighborhood as more cohesive. On the neighborhood level, only the percentage of 1 or 2 family houses has a significant influence which explains 81% of the variance on the neighborhood level (which accounts for 15% of the total variance); all other variables which displayed bivariate correlations are rendered insignificant. Thus, multilevel regression shows that respondents have rated the level of social cohesion in their neighborhood quite concurrently independent of individual factors as length of residence, local participation etc., and that neighborhood-level variability can almost completely be explained by structural conditions.

The same is true even more manifestly for the sub-scale 'social mistrust'. Only 2% of variance on the individual level is explained by individual factors, but 89% of variance on the neighborhood level is explained by structural factors (after controlling for individual factors)! On the individual level, being female, living together with children, and having a higher educational degree significantly mitigate the perception of social mistrust; on the neighborhood level, both the percentage of 1 or 2 family houses and the percentage of welfare recipients strongly and positively influence the level of social mistrust, accounting, as already said, for 89% of variance.

Again, 'night fear' as a related concept may serve as a comparison. The perception of night fear is somewhat stronger influenced by individual level factors and somewhat weaker by neighborhood-level factors (11% of individual level variance and 69% of neighborhood-level variance explained). On the individual level, age and female sex enhance, and higher educational level reduces 'night fear'. These results are in line with the fear of crime literature (Hale 1996; Perkins and Taylor 1996); unfortunately, information on previous victimization is not available in this data set. On the neighborhood level, the same structural conditions are relevant as in the model explaining social mistrust, the percentage of welfare recipients now

having a stronger impact relative to the percentage of 1 or 2 family houses.

How do these results compare to other recent research on neighborhood social cohesion? Sampson et al. (1997: 921) report that 3% of individual level and 70% of neighborhood-level variance is explained in a two-level model explaining 'collective efficacy'. On the individual level, homeownership is by far the strongest predictor; age, SES and residential stability also enhance collective efficacy. On the neighborhood level, concentrated disadvantage, immigrant concentration and residential instability all reduce collective efficacy. Ross et al. (2001) found that age, female sex, high educational level (among other SES indicators) reduce the perception of 'mistrust' on the individual level, and 'objective neighborhood disadvantage' enhance mistrust on the neighborhood level.

Despite differences in several aspects, the overall picture which emerges from all studies including our own is remarkably clear: Social cohesion is a 'real' property of the neighborhood which can reliably be observed and reported by residents; it depends to a large extend on the social composition of the neighborhood, low residential stability and high concentrations of social disadvantage being the principle 'risk' factors. Controlling for individual level disadvantage and residential instability, the *concentration* of social disadvantage and residential instability has a strong negative impact on social cohesion. However, since some relevant indicators of disadvantage are not available on the individual level in the data set used (e.g. welfare recipience, home ownership), the proportion of variance explained at the neighborhood level may be somewhat overestimated.

In contrast to the work of Sampson and his collaborators, our study attempted to differentiate between social cohesion and social mistrust which is partly supported by the discriminative validity of both sub-scales. Social cohesion in our narrow definition is more dependent on residential stability and traditional settlement patterns and less affected by social disadvantage, whereas the reverse is true for social mistrust. At the same time, the 'social mistrust' sub-scale – and also 'night fear' – seems to be closer associated with the observation of disorder/crime. If this holds true, the causal sequence of neighborhood disorganization processes may become even more blurred – does social disorganization lead to more crime, or does the observation of crime lead to higher scores on disorganization scales, a question already raised by Sampson and Groves (1989)?

To illustrate this last point, bivariate correlations on the neighborhood level of both sub-scales, a single item taken from the 'social mistrust' sub-scale, and 'night fear' with violence indicators from the youth survey are reported in *table 6*. Social cohesion is *not*

significantly associated with any of the indicators of violence (observed violence, membership in a violence-prone peer group, self-reported violence), but with low parental control. Social mistrust, in contrast, is significantly associated with all three indicators of violence, and these correlations are even stronger for the single item from this scale which taps the observed lack of parental control ('parents don't care what their children are doing'). These results may hint at a pattern of 'subcultural' organization of neighborhoods where disorderly and delinquent behavior of residents, especially of adolescents, is not contradictory to the existence of close local ties (Warner and Rountree 1997). Finally, as to be expected, night fear shows the strongest correlations with all violence indicators from the youth survey. These results suggest that social mistrust might considerably be influenced by the observation of disorder and crime, as supported by the results of Ross et al. (2001: 584).

Further steps of analysis will try to address these questions more systematically by broadening the empirical data basis, by including more scales on neighborhood processes and on disorder/crime phenomena, and by employing appropriate statistical techniques as path modeling.

Literature

Bellair, Paul E. (2000). Informal surveillance and street crime: a complex relationship. *Criminology, 38(1)*, 137-169.

Bottoms, Anthony E.; Wiles, Paul (1997). Environmental Criminology. In Maguire, Mike; Morgan, Rod; Reiner, Robert (ed.), *The Oxford Handbook of Criminology.* Oxford: Clarendon Press, 305-360.

Brooks-Gunn, J.; Duncan, G. J.; Klebanov, P. K.; Sealand, N. (1993). Do neighborhoods influence child and adolescent development?. *American Journal of Sociology, 99(2)*, 353-395.

Bryk, Anthony S.; Raudenbush, Stephen W. (1992). *Hierarchical Linear Models: Applications and Data Analysis Methods.* Newbury Park: Sage.

Buckner, John C. (1988). The Development of an Instrument to Measure Neighborhood Cohesion. *American Journal of Community Psychology, (16)*, 771-791.

Bursik Jr., Robert J.; Grasmick, Harold G. (1993). *Neighborhoods and crime: the dimensions of effective community control.* New York: Lexington Books.

Duncan, Greg J.; Raudenbush, Stephen W. (1999). Assessing the Effect of Context in Studies of Child and Youth Development. *Educational Psychologist, 34(1)*, 29-41.

Furstenberg, F. ; Hughes, M. E. (1995). Social Capital and Successful Development Among At-Risk Youth. *Journal of Marriage and the Family, (57).*

Hale, C. (1996). Fear of Crime: A Review on the Literature. *International Review of Victimology, (4)*, 79-150.

Hunter, Albert J. (1975). The Loss of Community. An Empirical Test Through Replication. *American Sociological Review, (40)*, 537-551.

Jencks, Christopher; Mayer, Susan E. (1990). The Social Consequences of Growing Up in a Poor Neighborhood. In Lynn, Laurence E.; McGeary, Laurence (ed.), *Inner-City Poverty in the United States,* Washington, DC.: National Academy Press.

Kasarda, John; Janowitz, Morris (1974). Community Attachment in Mass Society. *American Sociological Review, (39)*, 328-339.

Kim, June Woo; Schweitzer, John (1996). *The Causes of, and Perceptions toward Social Capital in a Neighborhood Community Context* (unpublished paper at: http://www.msu.edu/user/socomm)

Liska, Ellen; Warner, Barbara (1991). Functions of Crime: A Paradoxical Process. *American Journal of Sociology, (91)*, 1441-1463.

Oberwittler, Dietrich (1998). Social Problems, Violence and Juvenile Delinquency in the City – A Socio-Ecological, Multi-Level Approach. In Albrecht, Hans-Jörg; Kury, Helmut (ed.), *Research on Crime and Criminal Justice at the Max-Planck-Institute (Summaries)* Freiburg: edition iuscrim.

Oberwittler, Dietrich (2001). *Juvenile delinquency in urban neighborhoods: do community contexts matter?* (Paper held at the first annual meeting of the European Society of Criminology, Lausanne, Sept. 2001)

Perkins, D. D.; Taylor, R. B.; (1996). Ecological Assessments of Community Disorder — Their Relationship to Fear of Crime and Theoretical Implications. *American Journal of Community Psychology, 24(1)*, 63-107.

Putnam, Robert D. (2001). *Bowling Alone. The Collapse and Revival of American Community.* London: Simon and Schuster.

Raudenbush, Stephen W.; Sampson, Robert W. (1999). Ecometrics: Toward a Science of Assessing Ecological Settings, with Appliance to the Systematic Social Observation of Neighborhoods. *Sociological Methodology,(29)*, 1-41.

Ross, Catherine E.; Mirowsky, John; Pribesh, Shana (2001). Powerlessness and the Amplification of Threat: Neighborhood Disadvantage, Disorder, and Mistrust. *American Sociological Review, (66)*, 568-591.

Sampson, Robert J.; Groves, W. Byron (1989). Community Structure and Crime. Testing Social-Disorganization Theory. *American Journal of Sociology, (94)*, 774-831.

Sampson, Robert J.; Raudenbush, Stephen W.; Earls, Felton J. (1997). Neighborhoods and Violent Crime: A Multilevel Study of Collective Efficacy. *Science, (277)*, 918-924.

Sampson, Robert J.; Morenoff; Jeffrey, D.; Earls, Felton (1999). Beyond Social Capital: Spatial Dynamics Of Collective Efficacy For Children. *American Sociological Review,(64)*, 633-660.

Schweitzer, John H. (1995). *Measuring Sense of Community in Urban Neighborhoods* (17th International Conference Making Cities Liveable, Freiburg/Germany 7.Sept.1995) unpublished paper

Skogan, Wesley G. (1990). *Disorder and Decline. Crime and the Spiral of Decay in American Neighborhoouds.* New York: Free Press.

Taylor, R. B. (1996). Neighborhood Responses to Disorder and Local Attachments: The Systemic Model of Attachment, Social Disorganization, and Neighborhood Use Value. *Sociological Forum, (11)*, 41-47.

Warner, Barbara D.; Rountree, Pamela W. (1997). Local Social Ties in a Community and Crime Model: Questioning the Systemic Nature of Informal Social Control. *Social Problems, 44*, 520-536.

Wikström, Per-Olof H. (1998). Communities and Crime. In Tonry, Michael (ed.), *Oxford Handbook on Crime and Punishment).* Oxford: Oxford University Press, 241-273

Woolever, Cythia (1992). A Contextual Approach to Neighborhood Attachment. *Urban Studies, (29)*, 99-116.

Tables

Table 1: Sub-scales 'social cohesion' and 'social mistrust' - descriptives and results of factor analysis[1]

Items (1 = strongly agree, 5 = strongly disagree)	source	mean	std.dev.	h^2	F1[h]	F2[i]
sub-scale 'social cohesion' / first factor F1 (cronbach's α = 0.82)						
people around here are willing to help their neighbors[a]	PHCDN[2]	3.33	0.95	0.71	**0.85**	0.02
this is a close-knit neighborhood[b]	PHCDN	3.29	0.98	0.66	**0.66**	0.07
people in this neighborhood can be trusted[c]	PHCDN	3.59	0.94	0.51	**0.51**	-.21
sub-scale 'social mistrust' / second factor F2 (cronbach's α = 0.75)						
people in this neighborhood generally do not get along with each other[d]	PHCDN	2.36	0.92	--	--	--
parents around here hardly care what their children are doing[e]	own	2.55	0.99	0.45	0.14	**0.68**
people in this neighborhood do not share the same values[f]	PHCDN	2.66	0.91	0.52	-0.21	**0.59**
people in this neighborhood have no respect for law and order[g]	own	2.19	1.01	0.57	0.06	**0.78**

[1] alpha factoring, oblimin rotation (51% of variance explained, correlation between factors r=.52)
[2] PHCDN: Project on Human Development in Chicago Neighborhoods

German Translation of Items:
[a] 'Die Leute hier helfen sich gegenseitig.'
[b] 'Hier kennen sich die Leute gut.'
[c] 'Man kann den Leuten in der Nachbarschaft vertrauen.'
[d] 'Hier gibt es häufiger Konflikte zwischen den Nachbarn.'
[e] 'Die Eltern kümmern sich kaum darum. was ihre Kinder machen.'
[f] 'Die Leute hier haben keine gemeinsamen Werte'
[g] 'Die Leute hier haben keinen Respekt vor Gesetz und Ordnung'.

[h] Factor loadings to first factor 'social cohesion'
[i] Factor loadings to second factor 'social mistrust'

Data: Freiburg Community Survey 1999, N=2487

Table 2: **Variance components of neighborhood scales and items**

variance components	social cohesion	social mistrust	'night fear'[a]	local participation
Within-group variance (σ^2)	0.720	0.661	1.097	2.352
Between-group variance (τ_{00})	0.132	0.118	0.127	0.021
Intra-class coefficient ICC (ρ)	15.5%	15.1%	10.0%	1.0%
Group-level reliability (λ)	.94	.94	.91	.50

[a] 'how safe do you feel being out alone in your neighborhood at night?'
Data: Freiburg Community Survey 1999, N=2331 in N=20 neighborhoods
(6 neighborhoods with < 30 respondents excluded)

Tab. 3: **Descriptives of scales and variables**

	N	min.	max.	mean	std. dev.	skewn.
1.Person Level (N=2331)[a]						
Age (in years)	2312	18	98	46,30	17,83	0,42
Sex (1=male, 2=female)	2310	1	2	1,56	0,50	-0,23
Children in Household (0=no, 1=yes)	2331	0	1	0,23	0,42	1,30
educational level (0=very low, 4=very high)	2292	0	4	2,55	1,12	-0,15
residential stability[b] (in years)	2219	0	89	13,26	14,12	1,48
social cohesion (factor score)	2231	-2,74	1,89	0,0	0,92	-0,06
social mistrust (factor score)	2231	-1,69	3,01	0,0	0,88	0,38
'night fear' (1=very safe, 5=very unsafe)	2316	1	5	2,64	1,09	0,46
general satisfaction with neighborhood (1=very satisfied, 5=very unsatisfied)	2320	1	5	1,80	0,88	1,10
local participation (number of club memberships and civic engagements)	2331	0	15	1,27	1,55	1,98
Neighborhood Level (N=20)[a]						
Number of respondents	20	37	299	117	68,7	1,12
% 1,2 family houses[c]	20	1,68	53,38	21,14	17,17	0,61
% welfare recipients[c]	20	1,44	15,19	4,36	3,15	2,29
% educational level > 2	20	36,4	70,7	51,54	12,93	0,19
mean residential stability	20	10,04	18,01	13,40	2,27	0,52
social cohesion (factor score)	20	-0,56	0,85	0,06	0,38	0,58
social mistrust (factor score)	20	-0,57	0,67	-0,04	0,36	0,50
mean 'night fear'	20	1,76	3,41	2,58	0,38	-0,03
mean general satisfaction with neighborhood	20	1,38	2,38	1,78	0,28	0,62

[a] 156 respondents in 6 Neighborhoods with less than 30 respondents excluded
[b] log-transformed for analysis
[c] Official Data provided by the Statistical Office of Freiburg

Table 4: **Bivariate correlations of survey scales and items with census structural data**

(pearson's r)	1	2	3	4
survey scales and items				
1 social cohesion				
2 social mistrust	**-.797**			
3 'night fear'	**-.681**	**.878**		
4 general satisfaction	**.629**	**-.819**	**-.772**	
official structural data[a]				
residential stability	**.512**	-.057	-.056	.078
% unmarried persons	**-.444**	-.084	-.148	.100
% foreign nationalities	**-.721**	**.761**	**.724**	**-.852**
% welfare recipients	**-.473**	**.799**	**.778**	**-.844**
% 1. 2 family houses	**.910**	**-.739**	**-.629**	**.522**

[a] Official data provided by the Statistical Office of Freiburg
bold: p<0.05
Data: Freiburg Community Survey 1999. N=20 neighborhoods
(6 neighborhoods with < 20 respondents excluded)

Table 5: **Hierarchical linear regression models explaining neighborhood social cohesion. mistrust. and night fear**

	social cohesion		social mistrust		night fear	
	unstand. coeff.	*t-value*	*unstand.coeff.*	*t-value*	*unstand.coeff.*	*t-value*
Intercept	-0.801	-0.893	-0.165	-0.211	**2.275**	**3.264**
Level 1 (people)						
age	**0.008**	**4.643**	-0.000	-0.057	**0.010**	**7.550**
sex	0.026	0.974	**-0.089**	**-3.011**	**0.380**	**10.010**
children in houshold	**0.236**	**5.465**	**-0.187**	**-5.638**	0.063	1.209
residential stability	**0.050**	**2.858**	-0.050	-2.044	0.030	1.402
educational level	0.015	0.973	**-0.069**	**-3.426**	**-0.136**	**-6.851**
local participation	**0.122**	**4.896**	-0.027	-1.237	-0.052	-1.553
Level 2 (neighb.)						
% 1. 2 family houses[a]	**0.018**	**8.778**	**-0.014**	**-4.864**	**-0.010**	**-2.972**
% welfare recipients[a]	-0.014	-1.260	**0.047**	**3.182**	**0.066**	**5.453**
educational level	0.002	0.406	-0.005	-1.155	-0.002	-0.316
residential stability	0.008	0.728	0.009	0.741	0.006	0.718
var. explained at L1	5.0%		1.9%		10.9%	
var. explained at L2	81.2%		88.9%		69.7%	

Data: Freiburg Community Survey 1999. N=2331 in N=20 neighborhoods (6 neighborhoods with < 30 respondents excluded)
bold: p<0.01
[a] Official Data provided by the Statistical Office of Freiburg

Table 6: **Bivariate correlations of community survey scales and items with youth survey measures of neighborhood violence**

community survey data → *youth survey data*	social cohesion	social mistrust	'parents don't care'[a]	night fear
observed violence[b]	-.296	**.549**	**.584**	**.663**
member of violent peer group[c]	-.195	**.548**	**.670**	**.689**
self-reported violence[d]	-.307	**.613**	**.646**	**.761**
'parents don't know where I go'[e]	**-.575**	**.730**	**.526**	**.653**

Pearson's r. **bold coefficents: p<0.05**

[a] 'Parents around here hardly care what there children are doing' (community survey)
[b] 4 item index
[c] 3 item index
[d] 3 item index
[e] 'When I go out, my parents in most cases know whom I meet and where I go' (reversed).

Data: Freiburger Community Survey 1999 / MPI Youth Survey 1999, N=17 neighborhoods