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**JUDGES' SUBJECTIVE THEORIES OF THE DEVELOPMENT  
AND MAINTENANCE OF CRIMINAL BEHAVIOR:  
A FACET APPROACH**

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## Context of Research

One of the present research projects of the Criminological Research Institute of Lower Saxony (KFN) deals with **disparities in sentencing**. The central question of this project is:

"To what extent do **individual** and **contextual** factors contribute to the explanation of disparities in judges' sentencing?"

In order to answer this question, data of the Federal Central Register (BZR) in Berlin were chosen as **behavioral criteria** of sentencing and two groups of **predictor variables** were specified:

- (1) variables characterizing the **individual judge as a decision maker** and
- (2) contextual variables specifying those **regional, structural and organizational characteristics of the courts** that might influence sentencing.

These variables were integrated into a complex **model for predicting actual sentencing** of judges at local court. The theoretical reasoning underlying this model and the design of a study to test its empirical implications were outlined in detail by OSWALD & LANGER (1989) on an international symposium on sentencing and sentencing disparities.

This paper concentrates on only one of the **individual** variables specified in this model which is of particular interest to differential and social psychological reasoning: the **judge's attributions of causes** to the **development** and **maintenance** of criminal behavior. The assumption that is crucial in this context is that the **individual judge's attitudes toward punishment** vary according to the attributions he prefers. That is to say, if a judge relies more on causes which are **located in the person** and which are **under control of that person**, then the judge will have a stronger attitude towards punishment.

## Research interest

Our primary interest in the study to be described here is in answering the question whether judges' subjective theories, i.e. their attributions of causes to the development and maintenance of criminal behavior can be structured and described according to some **general dimensions** (OSWALD & BILSKY, 1990). Although finding such dimensions by **multivariate analyses** would be a first step towards this aim, relying on eyeballing and tentative interpretations of these dimensions alone without referring back to some thematically relevant theories wouldn't be a sound basis for research. Therefore, we tried to spell out the **theoretical framework** of our analyses explicitly by making use of the facet analytical approach (cf. BORG & LINGOES, 1987).

### Facets supposed to structure causal attributions

Starting from literature on attribution theories we looked for facets that might be relevant with respect to structuring judges' subjective theories of criminal behavior. HEIDER's (1958) and WEINER's (1984) general theories were scanned as were approaches that explicitly focus on sentencing (e.g. CARROLL, PERKOWITZ, LURIGIO & WEAVER, 1987). Ultimately, the following facets (and elements) were chosen as a theoretical frame for further analyses:

- location (intern/extern)
- stability (stable/variable)
- controllability (controllable/uncontrollable)
- activity (active/passive)
- intentionality (intentional/unintentional)

In addition, another facet was specified that was intended as an elaboration of WEINER's definition of location, differentiating among micro-, meso- and macro-aspects of attribution. This facet, which is implicit or explicit in other sociological and social psychological reasoning as well (e.g. SCHWARTZ & BILSKY, 1987; SHOEMAKER, 1984), is tentatively labelled "directness of involvement" and comprises three ordered elements: person, interaction and social system. The following examples may illustrate classification of items according to this facet:

"intellectual deficits" (item 33) as a potential cause of criminal behavior are directly attributed to the person,

"frequent change in early vital contacts" (item 7) in contrast stresses the importance of direct social interaction with other significant individuals, thus indicating a somewhat more diffused attribution, and

"structurally caused unemployment" (item 32) signalizes a minimum of personal involvement, attributing individual acts largely to characteristics of the social system.

### Causes of criminal behavior

In order to use the attribution variable as a predictor in the project sketched above, we had to construct an **instrument** for assessing judges' attributions. A first step on this way was to ask about 70 persons of different professional background to specify those factors they thought to be important with respect to criminal behavior. The main reason for starting item construction by gathering **laymen's specifications** of factors that are supposed to trigger criminal behavior was to get an ecologically valid collection of items that is not in advance biased in favour of existing theories of attribution and deviance.

The resulting list was then supplemented by some additional factors found in **literature on deviant behavior**. All of these factors were classified a priori to data analysis with regard to the six aforementioned facets. As might be expected for items that were not especially constructed with reference to facets, not all of them could be classified unambiguously. The least difficulties arose with the location- and the directness-facets. This final list of 68 items was shaped in a way that items could be rated on a five point Likert scale (ranging from 0 to 4) according to the importance subjects attributed to them with respect to their influence on the **development** and **maintenance** of criminal behavior, respectively. Thus, every item had to be scaled twice.

## **Method**

A sample of 213 judges, prosecutors and law students completed this form in 1988 and 1989.

Separate analyses of items with respect to their importance to the (1) development and (2) maintenance of criminal behavior were run using factor analysis (PCA) and Smallest Space Analysis (SSA) as analytical tools. The latter is an MDS procedure that treats each variable as a point in a Euclidean space in such a way that the more similar two variables are, the closer they are located in space. Given an acceptable fit between the variables' intercorrelations and their corresponding spatial distances, the space of smallest dimensionality is used for a geometric representation of data (cf. LEVY, 1985).

## **Results**

### **Development of criminal behavior**

Factor Analysis. Exploratory factor analyses of data were run first. According to conventional criteria (scree-test, eigenvalue, explained variance, stability of solution, parsimony and item content) we chose a four factors solution for describing the item pool which explains approximately 32% of variance. Inspection of items with substantial loadings suggested a tentative labeling of factors. Thus, factors might be called

- "Destructive Motivation" (factor I),
- "Societal Factors" (factor II),
- "Lack of Planning and Perspective" (factor III), and
- "Marginal Position in Social Life" (factor IV).

As can be seen from the following table (table 1) the chosen solution fits the requirements of simple structure quite well.

**Table 1:** Analysis of causes supposed to be relevant to the development and the maintenance of criminal behavior (N=213; coefficients omitted if  $a_{ij} < .30$ ; exception: if all  $a_j < .30$ , highest loading reported in brackets)

factor	#	variable (abbreviated)	PCA "development"				PCA "maintenance"	
			I	II	III	IV	I	II
I	2	desire for excitement and adventure	.52	-	-	-	-	.42
	4	need of power	.33	-	-	-	-	(.28)
	6	criminal energy	.38	-	-	-	-	.54
	11	revenge	.60	-	-	-	.33	.39
	12	longing for money without working	.48	-	-	-	-	.49
	15	lack of restraint	.37	-	-	-	-	.52
	17	"opportunity makes the thief"	.42	-	-	-	-	.37
	19	lack of self-control	.34	-	.31	-	-	.48
	21	group pressure	.53	-	-	-	-	.34
	23	exaggerated desire to show off	.61	-	-	-	-	.43
	30	affiliation to street gangs	.60	-	-	.33	-	.41
	31	psychic disorders	.46	-	-	-	-	(.26)
	35	protest against state and society	.46	-	-	-	(.24)	-
	38	missing reference to reality	.50	-	-	-	-	.49
	44	weakness of character	.47	-	-	-	-	.59
	46	pathological aggressiveness	.63	-	-	-	-	.39
	47	act under influence of emotion	.49	-	-	-	(.26)	-
	49	inability to deal with conflicts	(.27)	-	-	-	.35	-
	50	imitation of inadequate models	.47	-	-	-	.33	.38
	53	refusal of societal values and norms	.42	-	-	-	-	.33
60	longing for self-affirmation	.53	-	-	-	-	.45	
61	feeling of hatred	.66	-	-	-	.40	.38	
III	8	early leaving parent's house	-	-	.47	-	-	(.25)
	13	unconcern about everybody and everything	-	-	.53	-	-	.50
	14	too much leniency of judicial authority	-	-	.39	-	-	.41
	18	breaking out of the daily round	-	-	.48	-	-	.39
	22	decay of societal values	-	-	(.24)	-	-	.37
	24	struggle for possession	-	-	(.27)	-	-	.31
	33	intellectual deficits	-	-	.51	-	-	.45
	37	"live from hand to mouth"	-	-	.60	-	-	.60
	40	chronic physical complaint	-	-	.47	-	.42	-
	43	reluctance to work	.33	-	.34	-	-	.57
	52	anonymization of property	-	-	(.26)	-	(.26)	-
	54	careless handling of money	-	-	.36	-	-	.43
	57	excessively watching TV	-	.33	.36	-	.32	-
	59	broken partnership	-	-	.52	-	.32	.33
	65	sense of mental vacuum	-	-	.51	-	.39	.42
	67	disordered life-style	-	-	.60	.30	-	.48
	68	craving for pleasure	.35	-	.41	-	-	.49

Table 1 (continued)

factor	#	variable (abbreviated)	PCA "development"				PCA "maintenance"	
			I	II	III	IV	I	II
II	3	coincidence of disastrous conditions	-	.48	-	-	.51	-
	5	desires aroused by media	-	.51	-	-	.37	-
	10	selectivity of police control	-	.43	-	-	.47	-
	25	unforeseeable liabilities	-	.33	-	-	.48	-
	26	lack of educational opportunities	-	.46	-	-	.53	-
	29	achievement-orientated society	-	.60	-	-	.59	-
	32	structurally caused unemployment	-	.38	-	.31	.52	-
	36	impoverishment of population	-	.56	-	-	.46	-
	39	not enough room for self-realization	-	.49	-	-	.63	-
	42	consumer society	-	.64	-	-	.55	-
	45	glorification of violence by media	-	.39	-	-	.40	-
	48	lack of tolerance by the environment	-	.44	-	-	.50	-
	51	criminalization by penal legislation	-	.53	-	-	.54	-
	55	experienced injustice	.31	.54	-	-	.58	-
	56	stigmatizing reactions	-	.57	-	-	.63	-
58	permanent overcharge	-	.44	.35	-	.47	-	
62	lack of approval	.34	.49	.31	-	.58	-	
IV	1	anti-social background	-	-	-	.64	-	.34
	7	frequent change in early vital contacts	-	-	-	(.27)	.31	-
	9	failure in professional career	-	-	-	.42	.42	-
	16	poor social integration	-	-	-	.66	.37	-
	20	psychic instability	.31	-	.34	.40	-	.38
	27	missing social integration after punishment	-	-	-	(.20)	.44	-
	28	belonging to a subculture	-	-	-	.51	-	.36
	34	insufficient tradition of values	-	-	-	.47	-	.45
	41	offender's addiction to drugs	.43	-	-	.44	-	(.23)
	63	be in a state of neglect	.31	-	-	.52	-	.56
64	miserable prospects of life	-	-	.37	.38	.52	.33	
66	broken home	-	-	-	.48	.39	-	

Smallest Space Analysis. Following factor-analyses data were analyzed by Smallest Space Analysis (SSA). This second analytical step made use of the a priori classification of items to facets (elements) to check for the (in-) adequacy of attribution theories for describing judges' reasoning on criminality.

While "stability", "controllability" and "intentionality" did not show up, "location" and "directness" could be identified both in a three- and four-dimensional SSA. Furthermore, it might make sense to stick to the "activity"-facet, too, although the split of active and passive elements doesn't look very convincing. Since separation of items was not very much improved in the higher-dimensional solution, the three-dimensional SSA was chosen for further discussion in spite of a somewhat poorer coefficient of alienation (.22 vs .17).

A first, although rather vague separation of items with respect to **activity** can be identified in the projection on axes 2 and 3 of the SSA (figure 1). Here, as in the following plots too, letters represent the a priori classification of items to the elements of the facet under consideration (activity facet: a=active, p=passive).

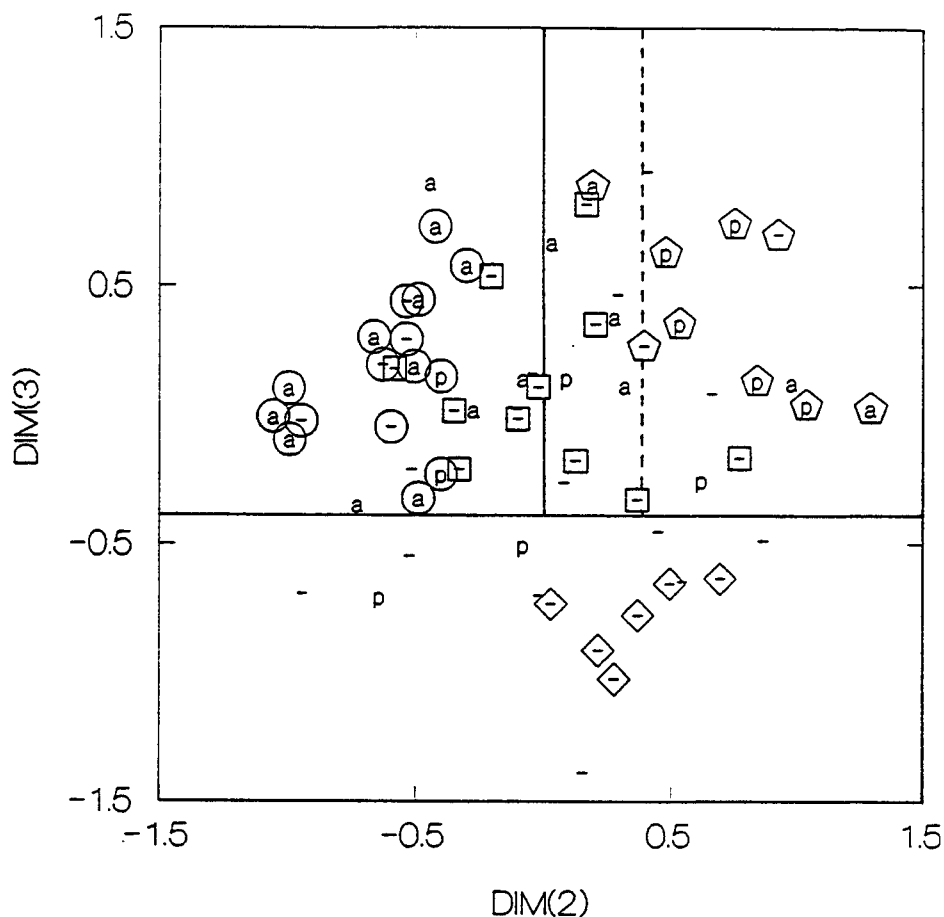
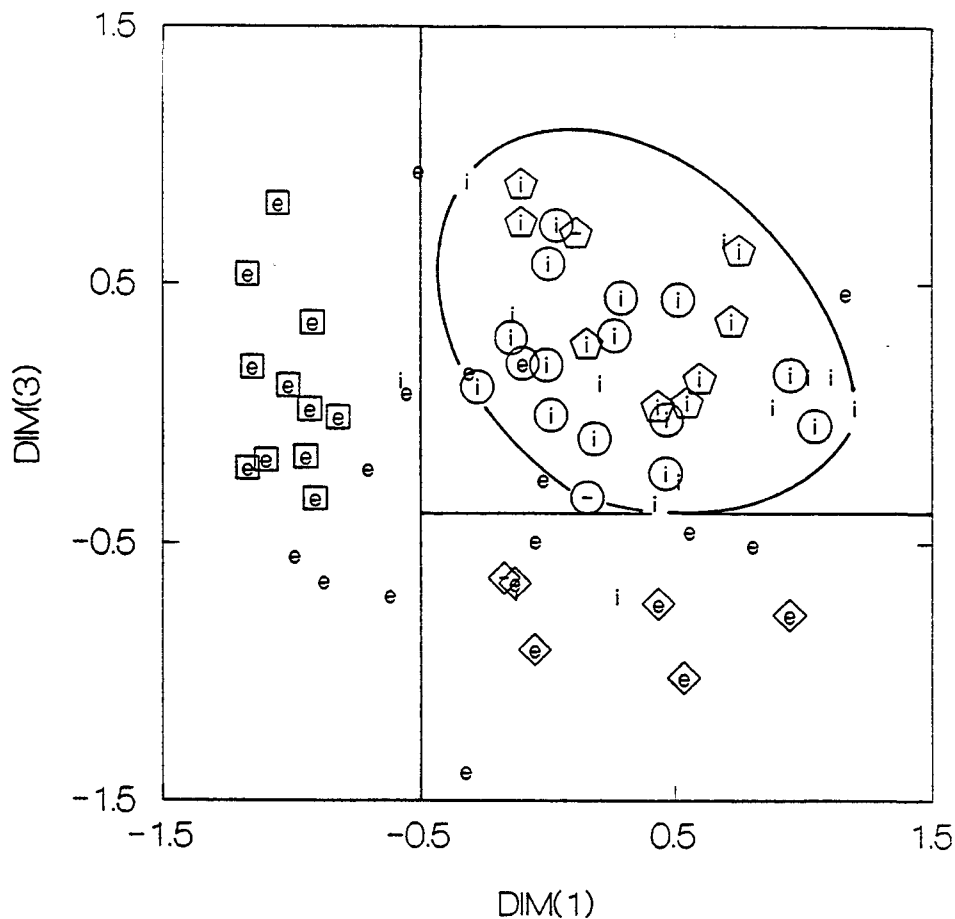


Figure 1. Development of criminal behavior: Projections of (1) the activity facet {a,p} and (2) marker items of a 4-factors PCA {1=circle, 2=square, 3=pentagon, 4=diamond} from a 3-dimensional SSA

The first thing to mention is that - with two exceptions - all classifications lie above an horizontal line; placement of this line will soon become clear when discussing the other splits. Secondly, the majority of active elements is to be found to the left. A clear borderline (dashed line) separating active and

passive items can't be identified, however. Nevertheless, this vague separation makes theoretical sense in combination with some other results to be reported immediately.

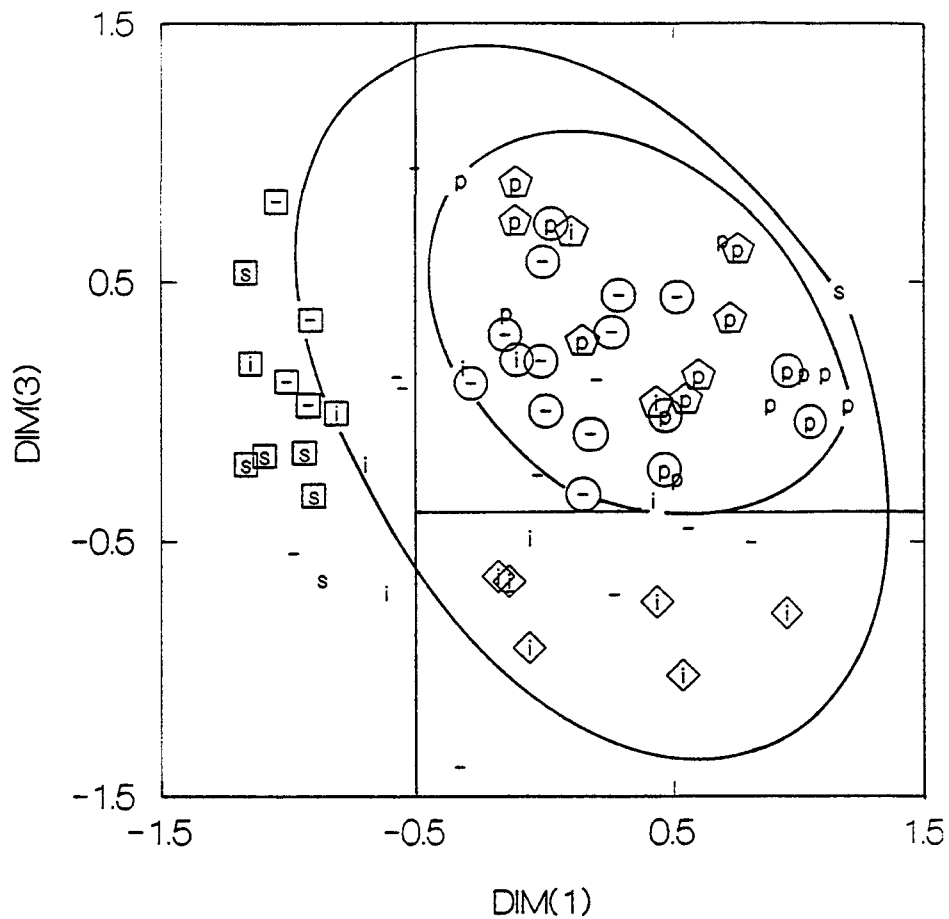
The second split to be discussed concerns WEINER's **location** facet (figure 2). As can be seen, nearly all elements classified as intern (i) fall within a "circle" drawn on dimensions 1 and 3. Furthermore, the lowest point of this circle corresponds to the same value on the ordinate that defines placement of the horizontal line in the active-passive split. Thus, a cylinder results containing all items classified as intern (i) and tentatively separated into active (a) and passive (p) elements.



**Figure 2.** Development of criminal behavior: Projections of (1) the location facet {e,i} and (2) marker items of a 4-factor PCA {1=circle, 2=square, 3=pentagon, 4=diamond} from a 3-dimensional SSA

The spatial organization of items becomes even clearer, when inspecting plots related to the ordered facet named **directness** (figure 3). Here items classified as person elements (p) fall within a circle, - the same circle we have already seen when inspecting WEINER's **location** facet. In addition, items specified as interaction elements (i) of this facet lie outside this inner circle but inside a second circle that separates them from social system elements (s).





**Figure 3.** Development of criminal behavior: Projections of (1) the directness facet {p,i,s} and (2) marker items of a 4-factors PCA {1=circle, 2=square, 3=pentagon, 4=diamond} from a 3-dimensional SSA

Combining the two-dimensional plots thus far discussed in a three-dimensional model (figure 4) shows, how items can be separated simultaneously according to **directness** (or **location**) and **activity**. Another summary of these results is given by the following mapping sentence (figure 5):

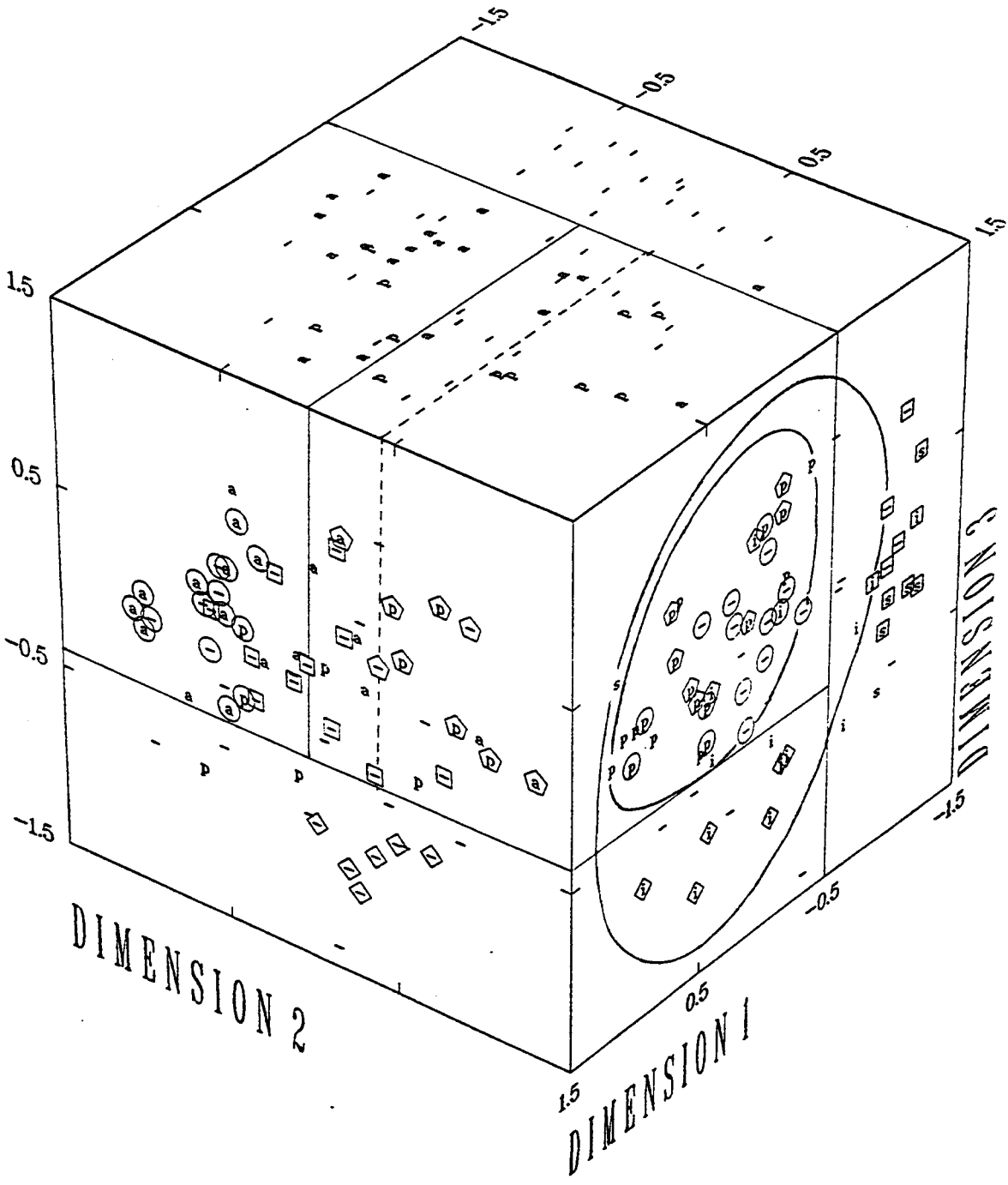


Figure 4. Three-dimensional model separating items according to the directness- (or location-) and activity-facet

<u>persons</u> judges prosecutors students of law	rate	factors categorized as	<u>location</u> intern extern
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that might as well be classified as

primarily related to	<u>directness of involvement</u> person interaction social system	and that
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indicate an	<u>activity</u> active passive	orientation of
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the person under consideration → on a

continuum ranging from	<u>range</u> unimportant to very important
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with respect to the	<u>stage</u> development maintenance	of criminal behavior
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Figure 5. Mapping Sentence

A synopsis of factor analysis and SSA. How can the results of the factor analysis and the SSA-representation of facets be integrated, then? The crucial step toward integration is taken by mapping the four factors into our three-dimensional SSA-model. The result of this attempt is represented in figures 1 to 3, too. There, marker items (i.e.,  $a > .4$ , no substantial loadings ( $a > .3$ ) on other factors) of the four factors are indicated by different symbols (1 = circle, 2 = square, 3 = pentagon, 4 = diamond). Furthermore, a spatial separation of factors could be accomplished by drawing straight (solid) lines.

As can easily be verified, factors I and III, that were tentatively labelled "destructive motivation" and "lack of planning and perspective", are located within the same space as is the SSA-cylinder containing items classified as intern (location), person (directness) and active/passive (activity), respectively. Furthermore, there is considerable overlap between the interaction-elements of "directness" and items with high loadings on factor IV, called "marginal position in social life". The same applies to facet-elements labelled social system and factor II named "societal factors". Ultimately, a moderate overlap shows up between passive-elements and "lack of planning and perspective", i.e. factor III, on the one hand and active-elements and "destructive motivation", i.e. factor I, on the other hand.

#### **Maintenance of criminal behavior**

The second part of this study dealt with the question whether importance rating of items with respect to the **maintenance** of criminal behavior differs from scaling with respect to its **development**. To answer this question maintenance-ratings were analyzed in the same way as described before.

Factor Analysis. While extracting three or four factors seemed adequate in the PCA of maintenance-ratings, too, only the 2-factors solution, explaining about 24% of variance, lent itself to interpretation. As can be seen from table 1, items originally loading on factors I (destructive motivation) and III (lack of planning and perspective) are now represented by the second factor. Furthermore, factor II (societal factors) of the development-ratings widely conforms to the first factor of the present PCA, whereas factor IV (marginal position in social life) can't be easily associated with either factor. Referring to the labeling suggested in the former analysis, factors might now be called

"Societal Factors" (factor I) and  
"Individual Factors" (factor II).

Smallest Space Analysis. As before, three- and four-dimensional Smallest Space Analyses could likewise be used for describing the data. However, since the higher dimensionality didn't add any structural information the three dimensional solution was chosen because of parsimony and comparability to the former analysis despite a somewhat higher stress (.22 vs. .18).

None of the three postulated facets "stability", "controllability" and "intentionality" could be identified in this analysis either, while "activity", "location" and "directness" showed up again. The corresponding splits of the two-dimensional projections of items are depicted in figures 6 to 8. As can be seen, trying to separate active from passive facet elements results in a rather poor split again, whereas splitting items according to the location and directness facet, respectively, is easily accomplished. Some obvious misplacements of items with regard to the a priori classification as regards location need some additional comment in the following discussion.

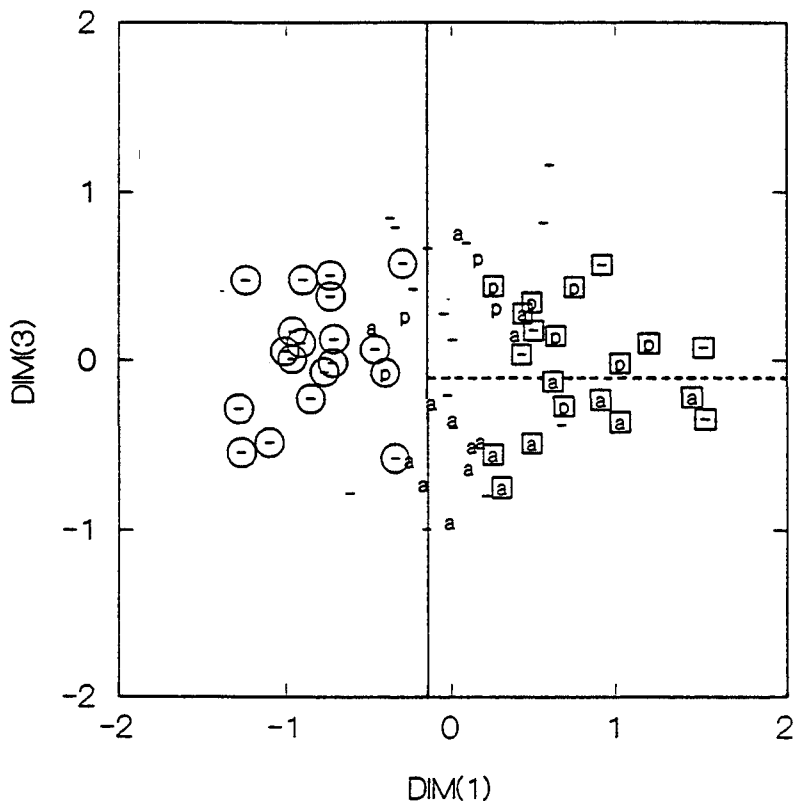


Figure 6. Maintenance of criminal behavior: Projections of (1) the activity facet {a,p} and (2) marker items of a 2-factors PCA {1=circle, 2=square} from a 3-dimensional SSA

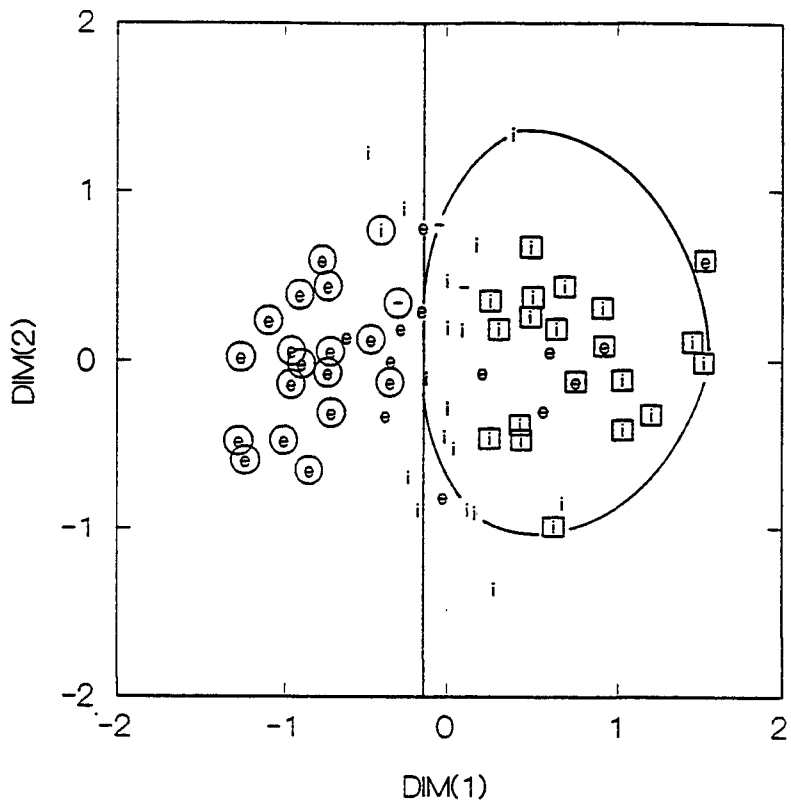
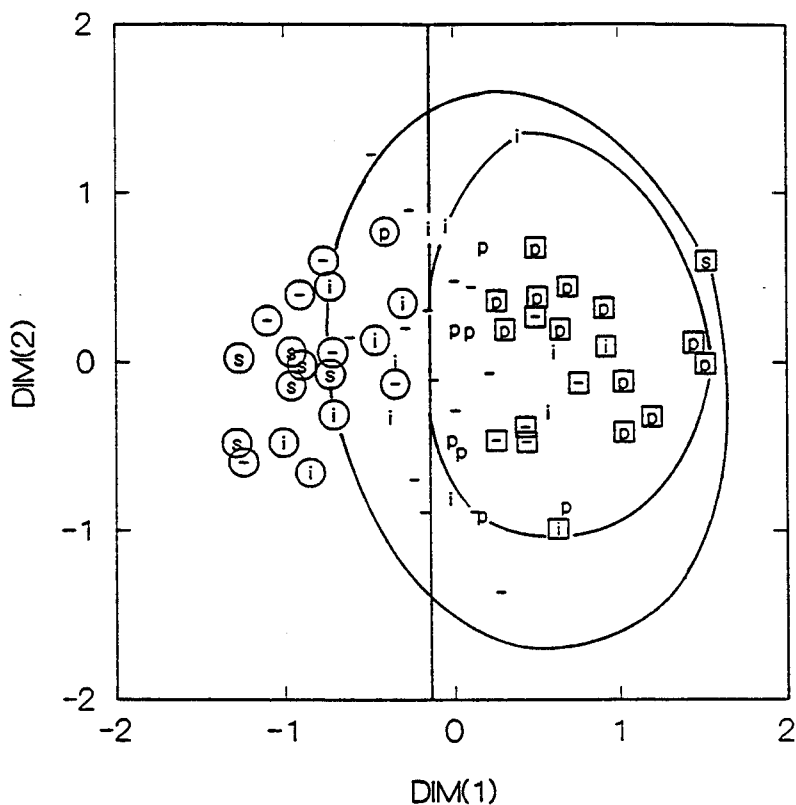


Figure 7. Maintenance of criminal behavior: Projections of (1) the location facet {e,i} and (2) marker items of a 2-factors PCA {1=circle, 2=square} from a 3-dimensional SSA



**Figure 8.** Maintenance of criminal behavior: Projections of (1) the directness facet {p, i, s} and (2) marker items of a 2-factors PCA {1=circle, 2=square} from a 3-dimensional SSA

### Discussion and Conclusions

Before going into detail and commenting on some interesting methodological and theoretical aspects of the data, however, the results presented thus far suggest the **overall conclusion** that judges' attributions of causes to the development and maintenance of criminal behavior may indeed be structured and described according to some general dimensions. Furthermore, these dimensions cannot only be identified and replicated by different multivariate procedures but widely correspond to facets inherent in different domains of psychological and sociological reasoning, e.g., attribution theory (WEINER, 1984), value research (SCHWARTZ & BILSKY, 1987), and theories of delinquency (SHOEMAKER, 1984).

Beyond these general conclusions, comparing the results arrived at by using different **analytical procedures** seems instructive, too. Thus, Smallest Space Analysis seems to exhaust structural information inherent in our data somewhat better than PCA as concerns maintenance of criminal behavior: First, while separating active and passive aspects was possible by SSA both in development- and maintenance-ratings, PCA allowed for a similar distinction only in the first data set (destructive motivation vs. lack of planning and perspective) whereas factors attributable to the individual are represented by only one factor (II) with regard to maintenance-ratings. Second, the triple distinction between macro-, meso-, and micro-aspects of attribution as specified by the directness facet (person, interaction, social system) is supported by SSA for both data sets. In contrast, only the first PCA on development-ratings permits a similar specification with factor II primarily stressing the macro-, factor IV the meso- and factors I and III the micro-aspect. The second PCA only resulted in a macro-

micro-polarization as can be seen from figure 8 and from the fact that factor IV (marginal position) couldn't be replicated for maintenance-ratings.

The last point to be made concerns some uninspected outliers in the location split (cf. figure 7) showing up when analyzing the importance ratings of factors contributing to the maintenance of criminal behavior. These outliers might be interpreted as misplacements or errors. However, another interpretation seems viable, too, when inspecting item content: Anti-social background (item 1), decay of societal norms (22), belonging to a subculture (28), insufficient tradition of values and norms (34), and being in the state of neglect (63) were classified as extern elements in the location facet and could be identified in the extern-domain when analyzing development-ratings. In this sense, all of these factors might be used to exculpate a person's becoming a delinquent because of unfavourable (outer) circumstances that aren't under the control of the individual. On the other hand, showing delinquent acts repeatedly may cause a change in attributions from the beholder's point of view. Now, these factors are no longer interpreted as extraneous influences. Instead, the delinquent himself might be seen as the active part, who voluntarily chooses and influences his social surroundings. Although this is but a tentative hypothesis in the light of all items identified as outliers (e.g., item 35: protest against state and society) it does make sense from an interactionist's position. Considering a judge's reasoning, this change in attributions might covary with his readiness for punishing, i.e., the above mentioned factors may result in more or less leniency depending on whether or not a person is convicted for the first time. Whether this reasoning comes true has to be tested empirically, however.

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