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Lüdtke, Hartmut; Schneider, Jörg

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CAN PATTERNS OF EVERYDAY CONSUMPTION INDICATE LIFESTYLES? A SECONDARY ANALYSIS OF EXPENDITURES FOR FAST MOVING GOODS AND THEIR SOCIAL CONTEXTS

HARTMUT LÜDTKE AND JÖRG SCHNEIDER

1. Lifestyles and patterns of consumption

Lifestyles are patterns of everyday behaviour acquired by actors following their interests and preferences in the long term, framed by values, beliefs and other contexts of social meaning (Hartmann, 1999, Hradil, 1992, Konietzka, 1995, Lüdtke, 1989, 1995a, 1996, Mitchell, 1983, Müller, 1992, Spellerberg, 1996). In the process of presenting elements of their lifestyles in settings of communication and social exchange, actors are forming groups of symbolic affiliation with similar others, respectively symbolic distance from dissimilar others. As a result, collective forms of lifestyle are produced in a process of comparing, exchanging, and accepting signs of individual lifestyles by the relevant actors in social situations. From an actor's point of view, the meaning of lifestyle depends on three functions (Lüdtke, 1989, 1995a): (a) as a memory of everyday routines providing self-assurance in orientation and action, (b) as a link between personal and social identity, (c) as a medium as well as an outcome of social affiliation, respectively distinction.

According to this concept lifestyles are markers of the "expressive" or (following Max Weber) consumptive dimension of social inequality crossing the vertical dimension of status and power (Hartmann, 1999: 20 ff., Hradil, 1987, Lüdtke, 1989, Spellerberg, 1996). Their theoretical position is one on the mesolevel, placed between individual forms of living and small networks of these and, on the other side, macrostructures like classes, strata, large milieus or subcultures. That's why lifestyle affiliation as an exogenous vari-

able can better serve for explaining or predict behaviour and attitudes as endogenous variables than socio-economic variables of traditional description do.

In keeping with their expressive, semiotic meaning in social exchange it seems to be conclusive to operationalize lifestyles, using interview or observation data on individuals, by indicators of overt behaviour or, in our own term, of "performance". They include categories of relevant others in situations and artifacts as concomitants of everyday action. Because of their functioning as contexts and means of self-representation, lifestyles are usually inquired upon variables concerning performance in symbolically relevant parts of living, like home comfort, outfit and personal hygiene, leisure and sports, holidays, media, cultural activities, food, modes of eating and drinking. Although no theoretical consent among researchers has been achieved so far, how to select the most significant indicators of style performance from an open-ended list of opportunities, most of the life style studies carried out in recent years were founded on data from various parts of living mentioned above.

Having identified lifestyles as patterns of performance the analysis is continued by assigning typical characteristics of social position (e. g. status, income, gender, age, household structure and other resources or restrictions) as well as indicators of mentality (e. g. value-orientations, attitudes, self-concepts) to them. In this way additional information becomes available for better interpreting the subjective meaning of styles and for better explaining their generation in the process of socialization and social allocation of the representatives of style in question (Lüdtke, 1989, 1995a, 1996).

Among numerous researchers in this field, it was Sobel (1983) who chose a rather thrifty, but exclusively performance-related, way of constructing lifestyle types using data of 18.000 respondents in the US-Survey of Consumer Expenditures from 1972/73: logarithmic measurements of expenditures for 17 classes of goods. He found, by means of factor analyses, four patterns: two on a high, respectively "normal" level of "prestige", one of "high life" (focusing entertainment, pop, liquor), and one of "home life" (focusing family living, camping, health, sports, tv). Although Sobel dealt with only a narrow section of lifestyle research he demonstrated that data about consumer goods and expenditures can be suitable indicators of lifestyle patterns. Following his approach within an enlarged context we attempted to reconstruct more informative lifestyle types basing the GfK data. Although the kinds of goods available to us do represent only some trivial and highly transient elements of lifestyle, it can be shown that they, in connection with variables of social position and mentality; open our view of several, highly distinct as well as stable, stylistic patterns. They may signify something "more" than the obvious point of fast moving goods picked up by consumers.

2. Problems and hypotheses

Looking for a theoretically fruitful consumer typology we have to face the problem that the GfK data, being available for secondary analysis, do represent only an imbalanced selection of performing indicators. We are therefore running a high risk expecting to find lifestyle patterns of that kind which can serve for marking *complex* forms of living which we have our eyes on. From the point of a positive turn of things our first assumption is:

(1) *Classifying data about preferences and expenditures for fast moving goods, in connection with circumstances of shopping, makes it possible to clearly separate consumer groups of high homogeneity and distinctiveness. They adequately represent the performance level of lifestyles.*

If this hypothesis proves true and with respect to the fact that lifestyles develop within an individual's given frame of attitudes and restrictions, the following assumption seems plausible:

(2) *There are sets of specific variables of social position as well as of mentality corresponding to each of the performance subgroups. They are indicated by showing above or below average values in a group. Having identified lifestyle types by patterns of performance, social position, and mentality, these groups are, as a result, located in some general dimensions of lifestyles known from former studies (Lüdtke, 1995b, Spellerberg, 1996): traditionalism versus modernism, home- versus public-centeredness (radius of action), activity/creativity versus passivity/reception, and one or two less remarkable dimensions of economic and cultural resources at disposal.*

The shopping data noted by the diarists reach over one year. As far as we may assume that an individual does realize his or her special lifestyle by the set of all relevant acts at least over this time, we also can say: If consumers allocated their purchases over this period by chance there wouldn't appear any typical pattern of performance in one's purchases done within a shorter span of time. Constancy of lifestyles can therefore be tested by means of comparing the respective ties of diarists to analogous types separated at several cross-section analyses, though the span of one year seems to be a rather short panel length. If allocation by chance was fictitious, we may expect that the respondents performed structurally similar shopping behaviours at each time of analysis. To cut the periods of comparison not too short we decided to separate data of the quarters in 1995, thus far our next assumption is:

(3) *Constancy of one's lifestyle performance is given if there is no remarkable reduction in strength of the association between the pattern displayed in one quarter and that or those displayed in the following quarter(s), beginning with the first of them. This is*

equivalent to the observation that most of the diarists are tied to an analogous lifestyle type each across all the quarters.

As a consequence of our second hypothesis concerning the mentality dimension of lifestyles and according to the restricted meaning of fast moving goods as well as to the given small number of mental indicators, measured by GfK once a year, we assume:

(4) Values on the scales of „General Life Orientation“ and „Orientation Towards Nourishment“ prove effective predictors of a diarist’s style affiliation, i. e. ties to analogous subgroups across the quarters.

According to the theoretical claim that lifestyle ties should prove fruitful exogenous variables for the explanation of value orientations or other forms of cognition and attitudes, measured independently from indicators explicitly applied to describe mentality (Hartmann, 1999, Lüdtke, 1995a, 2000), our last hypothesis is:

(5) The lifestyle types reconstructed at each quarter will be closely associated with affiliates’ values on scales of „Ecological Consciousness“.

3. Data and sample

Our study is based on the GfK fast moving goods data from the 1995 panel: a combination of data from shopping diaries (currently kept) and questionnaires (once in that year). The following variables from the diaries were accumulated over the year as well as over each quarter (January to March, April to June etc.), so as to getting one total and four partial sets of data to be independently analysed at the further steps:

- (a) 50 sorts of goods as parts of 3 main groups¹: beverages (22), food (21)², and personal hygiene (7);
- (b) for each sort, respectively act, noted in the diary: number of purchases, quantity per entry, price per unit, time of purchase, location (small retailers, discounters, supermarkets); all quantity and expenditure data were transformed into values per capita, holding sizes of household constant;

¹ A fourth group: household articles (e. g. cleanser, paper towels), were not included because of their low affinity to „symbolic significance“ of use.

² Unfortunately goods like fruits, vegetables, meat, sweets, preserved food, bread, cakes and pastries had not been included in the investigation.

(c) social position and resources: householder's age, formal education, and occupation; size of building, of residence, of household; number of children below 18 years; car(s), garden and domestic appliances property (microwave, video, dish-washer)³;

(d) mentality: 7 Likert scales of „General Life Orientation” meaning tendencies like objectives, basic attitudes or self-concepts: traditionalism, innovativeness, seeking stimulating experiences, nostalgia, mistrust of anything new, convenient cookery, striving for high quality of things; 13 Likert scales of „Orientations Towards Nourishment”: slimness, healthiness, natural products, curiosity to learn, German food, convenience food, homely fare, full food, delightfulness, freshness, proprietary articles, vitamins and minerals, un-critical way of nourishment;

(e) three scales (varimax rotated, principal components, explaining 49.5 % of variance) of Ecological Consciousness⁴ gained from 13 statements concerning attitudes towards conservation: Factor loadings above 0.50

(1)	<i>Disapprobation of Conservational Intervention</i>	
	There is being made too much a fuss about environment	0.75
	There is enough conservation at the moment	0.70
	Cars aren't an environmental problem	0.68
	No possibility of conservation in the household	0.67
	I don't worry about the environmental harmfulness of products	0.57
	Conservation is a matter of state and industry instead of citizen	0.54
(2)	<i>Conservation at One's Personal Disposal</i>	
	Paying attention to pollution-free products at shopping	0.76
	Expending more money for pollution-free wrapping	0.68
	Buying less harmful products than in the past	0.61
	Taking limitations on oneself for the benefit of conservation	0.59
(3)	<i>Conservation as a Macrolevel Concern</i>	
	No more industry	0.83
	The whole of nature not only environment has to be aided	0.75

(f) „sensitivity to price” (Preisbewusstsein): a statement to be judged along three values: non/low/predominant/high.

The Likert scales mentioned were taken over from the original GfK data set available, the more so as their internal consistencies seemed to be sufficient. The data according to (a) and (b) were reduced, by means of factor analysis, down to 7 principal components of

3 Unfortunately data of income were not available in the 1995 set.

beverages, 6 such of food, and one such of goods for personal hygiene, showing contributions of variance each between 47 and 51 %. Four further factors (explaining 84 % of variance) were identified indicating general dimensions of shopping: quantity and wideness of goods bought; standard versus special prices paid; avoiding discounters versus preferring supermarkets; preferring small retailers. In this way we defined 18 variables indicating shopping, respectively „lifestyle” performance to serve as active variables for the subsequent cluster analysis of subgroups.

Obviously a small number of diarists were characterized by some extremely imbalanced tendencies of shopping or making entries, for instance by noting lots of very few goods or minimal quantities of many goods. In order not to reconstruct artificial patterns of shopping, we decided to „iron out” those data according to two criteria: a) eliminating such goods which were bought by only 10 % or less of the diarists only once during the year, and b) holding the maximum quantities per capita constant over the year at the level of the respective 90th percentile. Finally, the parallelized data sets from diaries and questionnaires refer to a net sample size of $N = 4426$ consumers.

4. Analyses and results

4.1 Lifestyle clusters in total

Taking the first step we carried out a cluster analysis⁴ including the 18 yearly variables defined above. An optimal solution was found with 15 clusters involving a reduction of 33.2 % of total variance. 40 % of the similarities between clusters are higher than 0.20 with a maximum amount of 0.48 – what we may judge all in all as just good enough. Describing the subgroups by the active indicators of performance (PER), those of social position (POS) and those of mentality (MEN)⁵ we find the following clear-cut profile of lifestyle types⁶.

4 By application of the CONCLUS model by Bardeleben (1991) which is an iterative, maximum-likelihood approach towards minimization of variance within clusters. Ist main criteria of goodness are: Eta^2 (proportion of variance between clusters to total variance), consistency of a cluster (on the analogy to Eta^2), and similarities between clusters (a correlation coefficient).

5 Including the subscales of „General Life Orientation“ (GLO) and „Orientation Towards Nourishment“ (OTN).

6 The values are scores of standard deviation from total mean (= 0). Only those „active“ (PER) variables with absolute values above 0.32 are given, „passive“ variables (POS, MEN) however with values above 0.24. Variables not mentioned indicate that there is a roughly average amount or category in the respective dimension.

Cluster 1: Single or small households with wideley spreading consumption (5.5 %, consistency = -0.05)

PER	quantity and wideness of goods bought	2.02
	standard products for daily dental and personal hygiene	1.44
	sauces, mustard, chips	1.23
	coffee and tinned milk	1.10
	liquor	1.02
	juices, lemonades, preserved milk, chocolate	0.88
	milk products	0.74
	fresh milk	0.53
	high-fat curd	0.35
POS	household size	-0.39
	number of children below 18	-0.35
	domestic appliances	0.33
MEN	no characteristics	

This pattern is characterized by a wide range of sorts of goods bought that seems to be typical for single or couple households (children hardly ever) located in the middle class. High level of liquor consumption and of appliances property may indicate their affinity to a “high life” style (Sobel 1983). The amount of consistency near zero is caused by the extremely high value of the first indicator of general shopping behaviour in relation to the other variables.

Cluster 2: Young families of working parents tending to convenience food (8.4 %, consistency = 0.34)

PER	juices, lemonades, preserved milk, chocolate	1.34
	sauces, mustard, chips	0.78
	milk products	0.54
	standard products for daily dental and personal hygiene	0.42
	cheese, low-fat curd, yoghurt	-0.49
	coffee and tinned milk	-0.40
	fresh milk	-0.36
POS	household size	1.08
	number of children below 18	-1.04
	age of housholder	-0.86
	domestic appliances	0.48
	car(s)	0.36
	working householder	0.32
MEN	GLO: high quality of things	-0.43
	OTB: proprietary articles	-0.45
	healthiness	-0.42
	freshness	-0.38
	full food	-0.35
	natural products	-0.39
	convenience food	0.34
sensitivity to price	0.32	

These middle class group of young families with at least one child are, through all PER, POS and MEN dimensions, characterized by a rather unobtrusive, convenience-orientated way of consumption. The pattern seems to reflect some habits and attitudes strongly affected by experiencing everyday stress of lacking time or money.

Cluster 3: Liquor drinkers (7.0 %, consistency = 0.34)

PER	liquor	1.82
	sauces, mustard, chips	0.57
	cheese, low-fat curd, yoghurt	0.51
	quantity and wideness of goods bought	0.44
	non-carbonated mineral water in returnable bottles	-0.44
	instant whips, sour cream, low-fat curd	-0.38
	cereals	-0.38
POS	formal education	(0.23)
MEN	OTN: curiosity	0.33
	delightfulness	0.30

This group unites diarists with a relatively luxurious and open-minded (curious) way of consumption that culminates in a high extent of liquor drinking. Affiliants are at a slightly above average level of formal education.

Cluster 4: Large young families with well-equipped homes and gardens (5.9 %, consistency = 0.25)

PER	fresh milk	1.80
	cereals	1.54
	standard products for daily dental and personal hygiene	0.50
	juices, lemonades, preserved milk, chocolate	0.47
	sauces, mustard, chips	0.44
	quantity and wideness of goods bought	0.40
	instant whips, sour cream, low-fat curd	0.35
	coffee and tinned milk	-0.43
	non-carbonated mineral water in returnable bottles	-0.42
POS	number of children	1.19
	household size	1.12
	age of householder	-0.62
	domestic appliances	0.59
	car(s)	0.41
	size of building	-0.35
	garden	0.30
MEN	OTN: uncritical way of nourishment	-0.39
	homely fare	-0.38
	slimness	-0.32
	GLO: traditionalism	-0.33

This pattern is similar to cluster 2 differing from that by living outside a city center (small home, garden) and a higher affinity to fresh and natural products such as fresh milk and cereals as well as to a more critical way of nourishment.

Cluster 5: Extremely reduced amount of shopping (13.4 %, consistency = 0.56)

This pattern seems to be rather a methodological artifact than a consumer “style”: it unites cases showing negative values in 9 dimensions of goods and a very low level of quantity and wideness (-1.04), additionally with absence of positional and mental features.

Cluster 6: Single or couple, elderly health fans (5.7 %, consistency = 0.30)

PER	cheese, low-fat curd, yoghurt	1.39
	instant coffee, teas	0.96
	cereals	0.56
	high-fat curd	-0.93
	saucers, mustard, chips	-0.79
	juices, lemonades, preserved milk, chocolate	-0.50
POS	age of householder	0.35
	household size	-0.32
MEN	OTN: full food	0.67
	healthiness	0.42
	natural products	0.41
	freshness	0.34
	slimness	0.31

Cluster 7: *Young consumers with low-critical attitude making use of special offers (2.6 %, consistency = 0)*

PER	standard versus special prices paid	-2.42
	juices, lemonades, preserved milk, chocolate	0.68
	sauces, mustard, chips	0.61
	milk products	0.58
	standard products for daily dental and personal hygiene	0.56
	supermarkets versus discounters	0.56
	instant coffee, teas	-0.43
	cheese, low-fat curd, yoghurt	-0.38
	coffee and tinned milk	0.37
	preferences for small retailers	-0.36
	beverages in disposable packs	0.36
POS	age of householder	0.26
MEN	GLO: nostalgia	-0.31
	OTN: sensitivity to price	0.32
	uncritical way of nourishment	0.28

This profile of characteristics speaks for itself making sense of the heading as our interpretation of this pattern. Lack of consistency is caused once more by the extremely high first value.

Cluster 8: Consumers of preserved products in non-urban home preferring local products (4.9 %, consistency = 0.16)

PER	instant whips, sour cream, low-fat curd	1.86
	instant coffee, teas	1.30
	quantity and wideness of goods bought	0.63
	juices, lemonades, preserved milk, chocolate	0.60
	milk products	0.56
	standard products for daily dental and personal hygiene	0.44
	fresh milk	-0.43
	super markets versus discounters	-0.37
	cheese, low-fat curd, yoghurt	-0.38
POS	size of residence	-0.39
	size of building	-0.35
	garden	0.33
MEN	OTN: German food	0.27
	GLO: convenient cookery	-0.25

The most interesting feature of this pattern seems to be an “unconsistent” relationship between the preference for ready-to-serve and instant products on the one hand and a tendency against convenient cookery respectively towards German food.

Cluster 9: Elderly consumers with limited mobility and selective taste (7.3 %, consistency = 0.47)

PER	preference for small retailers (i.e., located in the neighbourhood)	2.05
	preference for supermarkets versus discounters	0.44
	quantity and wideness of goods bought	-0.84
	sub-average values in 7 dimensions of goods	
POS	car property	-0.63
	domestic appliances	-0.44
	age of householder	0.28
MEN	GLO: high quality of things	0.33
	nostalgia	0.32
	OTN: proprietary articles	0.31
	sensitivity to price	-0.45

Cluster 10: Single elderly coffee drinkers at a lower level of education (mostly widows?) (6.5 %, consistency = 0.34)

PER		coffee and tinned milk	1.40
		cereals	-0.67
		instant coffee, teas	-0.52
		sauces, mustard, chips	0.52
		milk products	-0.47
		preferences for small retailers	-0.34
POS		household size	-0.41
		number of children	-0.39
		age of householder	0.37
		formal education	-0.26
MEN	GLO:	convenient cookery	-0.40
	OTN:	convenient food	-0.32
		homely fare	0.30
		uncritical way of nourishment	0.30

Cluster 11: Drinkers of noncarbonated water (6.4 %, consistency = 0.27)

PER		noncarbonated mineral water in returnable bottles	1.95
		preferences for supermarkets versus discounters	0.43
		fresh milk	0.36
		beverages in disposable packs	-0.34
		standard products for daily dental and personal hygiene	0.32
POS		no characteristics	
MEN		sensitivity to price	-0.24
	OTN:	homely fare	-0.25

This pattern seems to be one of consumers quite open to issues of environmental conservation.

Cluster 12: Urban consumers of beverages in disposable packs (6.7 %, consistency = 0.31)

PER	beverages in disposable packs	2.28
	preferences for supermarkets versus discounters	-0.41
	juices, lemonades, preservable milk, chocolate	-0.34
POS	size of building	0.57
	garden	-0.41
	domestic appliances	-0.38
	size of residence	0.37
	car(s)	-0.33
MEN	no characteristics	

These urban consumers, less equipped with cars or domestic appliances, moreover showing features of performance and mentality at an average level, appear as producers of rubbish to an extreme extent by having drinks. Therefore we expected them to have attitudes of relative indifference towards environmental conservation – an assumption that was not confirmed by data (see sections 4.2 and 4.5).

Cluster 13: Senior citizens with high standards of consumption and traits of traditionalism (4.0 %, consistency = 0.20)

PER		preference for small retailers	2.03
		coffee and tinned milk	0.87
		instant whips, sour cream, low-fat curd	0.67
		quantity and wideness of goods bought	0.65
		cereals	-0.42
		milk products	0.38
		preference for supermarkets versus discounters	0.33
POS		age of householder	0.67
		household size	-0.45
		number of children	-0.43
		working householder	-0.37
		domestic appliances	-0.27
MEN		sensitivity to price	-0.40
	GLO:	traditionalism	0.38
		nostalgia	0.32
		high quality of things	0.31
	OTN:	proprietary articles	0.36
		curiosity	-0.34

Cluster 14: Young working consumers at a moderate level of shopping behaviour (10.5 %, consistency = 0.53)

PER		preferences for supermarkets versus discounters	1.20
		quantity and wideness of goods bought	-0.91
		sub-average values in 7 dimensions of goods	
POS		age of householder	0.21
		working householder	0.26
MEN		sensitivity to price	-0.26

Cluster 15: Single or couple, health-oriented, senior citizens (5.2 %, consistency = 0.18)

PER		high-fat curd	1.77
		cheese, low-fat curd, yoghurt	1.12
		instant coffee, teas	0.75
		quantity and wideness of goods bought	0.70
		juices, lemonades, preservable milk, chocolate	-0.52
		milk products	-0.45
		fresh milk	0.42
		standard products for daily dental and personal hygiene	0.36
		liquor	0.35
		coffee and tinned milk	0.34
		saucers, mustard, chips	-0.34
POS		age of householder	0.64
		household size	-0.48
		number of children	-0.44
		working householder	-0.31
MEN	GLO:	high quality of things	0.30
	OTN:	healthiness	0.42
		freshness	0.38
		natural products	0.36
		proprietary articles	0.29
		German food	0.28

In contrast to the slightly similar cluster 6 affiliates to this type are elder on average, and they show a higher standard and variety of consumption.

4.2 General lifestyle dimensions of clusters

In accordance with our first hypothesis we achieved to find a set of well-discriminated, homogenous consumer groups represented by clusters. Having been connected with characteristics of social position and mentality, they reflect a more complex typology of consumption as well. To interpret them to be “entire lifestyles” however would sound like a considerable speculation with respect to the narrow section of lifestyle indicators having been at our disposal. In spite of this limitation, an indirect approach of testing how far these types are empirical, though special, manifestations of latent lifestyles stands to reason, namely arguing this way:

They are located in general dimensions of action, i.e., basic orientations of individuals in the process of developing and maintaining their lifestyles.

They are constant over time as lifestyles, in the sense of biographical constructions, do (see section 4.3).

Their performative “core”, i.e., association with a cluster, can be predicted by mental traits, here: “general life orientations” and “orientation towards nourishment”, because lifestyle performance is affected by affiliates’ preferences and self-concepts (see section 4.4).

They are effective predictors of “environmental consciousness” because individual’s cognitions and value orientations of such kind are formed and stabilized by the context of practising and experiencing his or her lifestyle (see section 4.5 involving a reverse logic of analysis).

Our starting point is the first problem. It is, by inspecting the results of classification, simple to duplicate that at least six clusters are placed in two dimensions of action: radius of action with the poles of high life (clusters 1 and 3) versus home life (clusters 4,8,9), and modernism (cluster 4) versus traditionalism (clusters 9, 13). This seems not exhausting but an interesting hint. In addition to it ten of our fifteen lifestyle types can – without exaggerating our interpretation – be related to Sobel’s (1981, 1983) general lifestyles: nos 13, 15 to “high prestige”, nos 2, 7, 14 to “normal level of prestige”, nos 1, 3 to “high life”, and nos 4, 8, 9 to “home life”.

By use of the informations given from similarities between clusters we extended our view. We ran an analysis of multidimensional scaling based on these measurements with application of the SPSS procedure ALSCAL. The $15 \times 14/2$ similarities were reduced to three dimensions as summerized in table 1.

Table 1: Dimensions of cluster similarities ($N = 105$), stress = 0.204

Stimulus Name: Cluster	Stimulus Coordinates for Dimension		
	1	2	3
CL1: Single or small households with wideley spreading consumption	2.29	-.02	.78
CL2: Young families of working parents tending to convenience food	.49	1.32	-.38
CL3: Liquor drinkers	.26	-.21	1.48
CL4: Large young families with well-equipped homes and gardens	.81	.63	-1.5
CL5: Extremely reduced amount of shopping	-1.75	.14	-.27
CL6: Single or couple, elderly health fans	-.18	-1.05	-1.22
CL7: Young consumers with low-critical attitude making use of special offers	.54	1.56	1.04
CL8: Consumers of preserved products in non-urban home preferring local products	1.34	-.77	-.58
CL9: Elderley consumers with limited mobility and selective taste	-1.96	-.74	.24
CL10: Single elderly coffee drinkers at a lower level of education (mostly widows?)	-.06	-.18	1.23
CL11: Drinkers of noncarbonated water	.03	.50	-1.18
CL12: Urban consumers of beverages in disposable packs	-.93	1.34	.36
CL13: Senior citizens with high standards of consumption and traits of traditionalism	.08	-1.54	.67
CL14: Young working consumers at a moderate level of shopping behaviour	-1.70	.42	-.27
CL15: Single or couple, health-oriented, senior citizens	.73	-1.41	-.39

Taking the most prominent coordinates into account the following interpretation of the findings seems to hit the point:

Dimension 1:

Quantity and wideness of consumption, associated with socioeconomic status

high	←	clusters 1, 8	versus	clusters 9, 14	→	low
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(cluster 5 as an artifact)

Dimension 2:

Quality and modernity of taste and design of products and wrapping, associated with age

ready to serve convenient uncritical young	←	clusters 2, 7, 12	versus	clusters 6, 13, 15	→	fresh, natural high quality healthy elderly
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Dimension 3:

Attitudes towards conservation

indifferent rejecting naive	←	clusters 3, 7, 10	versus	clusters 4, 6, 11	→	pro reflexive active
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For all that these classifications of clusters to general dimensions of orientation and action suggest slight or moderate correspondences with dimensions of “genuine” lifestyles. Obviously, there is given some evidence of our first assumption, although some *different* reductions of types to general dimensions presented themselves, leaving undecided how to interpret a homogeneous theoretical meaning of them.

4.3 Constancy of types throughout the year

In order to analyse the constancy of our typology it was necessary first of all to find equivalent sets of clusters for all quarters of 1995 to be valid reflections of the yearly ones at the same time. Because of some tendencies of diarists not to allocate shopping events in a homogenous way over the year we had to reduce the number of indicators of perform-

ance: twelve of the eighteen original ones remained being present in the quarters approximately to the same extent. These variables were measured, and compared, as structurally identical factors (principal components), by a procedure of construct validating as it were. It wouldn't furnish any more relevant information to describe these, 12 time 4, factors here in detail. After having constructed then four equivalent 15-clusters-sets⁷ of the quarters, in the same way we did for the yearly data, we were able to analyse the strenghts of association between each two cluster sets appearing in crosstables. We used two measures indicating the proportional reduction in error when predicting the association of cases with clusters of one period by the clusters of a previous one: Guttman's Lambda and the coefficient of uncertainty UC. Table 2 gives a summary of the results. There is strong evidence of relatively high consistency of clusters over two, even three and four periods confirming our third hypothesis.

Table 2: Dependencies of cluster sets on those of previous quarters* (N = 4426)

		dependent		
		Q 2	Q 3	Q 4
independent	Q 1	.31 .26	.28 .24	.28 .22
	Q 2		.30 .24	.29 .22
	Q 3			.29 .24

*Asymtetric coefficients of Lambda (first value) and UC (second value). All analogous coefficients of contingency > .80!

Another, more detailed test of constancy is the way of predicting association of cases with clusters by the 12 variables of performance in accordance with the logic we followed above. Analysis of discriminance is an adequate model for doing so. The results of it are summarized in table 3: any percentage of "correct" prediction does amount at least seven times of a "hit" by chance (= 6.7 %). They obviously indicate high constancy across the quarters likewise.

7 All amounts of Eta² gained by these partititious are between 0.42 and 0.44.

Table 3: Percentages of “correct hits” when associations with clusters are predicted by variables of performance (analyses of discriminance, $N = 4426$)

		15 clusters per quarter			
		Q 1	Q 2	Q 3	Q 4
12 variables per quarter	Q 1	93.2	50.0	46.7	44.9
	Q 2		94.8	47.4	45.5
	Q 3			93.4	46.2
	Q 4				93.1

Hardly worthy of note that all measurements in this passage are highly significant ($p < 0.001$) with respect to the null hypotheses.

4.4 Predicting performance types by variables of mentality

Understanding lifestyles evokes the problem of explaining covert behaviour (e.g. patterns of consumption) by overt behaviour (e.g. attitudes towards general objectives or goals of way of life): How strong and asymmetrical is an expected relationship between a set of attitudes and a set of behaviours theoretically associated with them? From a psychological point of view attitudes indicate beliefs about an object or action concerning the outcome that is expected from action (Ajzen 1988). From a sociological point they indicate how an actor normatively frames his definition of the situation (Esser 1999). As far as we know, attitude-behaviour connections are rather weak, as a rule, because attitudes refer to a wider scope of objectives than behaviour does, and social control as well as control beliefs have additional effects on action.

The case of lifestyle is, over and above that, a special variant of this problem having two aspects: a) The performative core of a lifestyle represents neither a particular class of action nor a concrete class of situations but a complex pattern of generalizations of several actions and situations, respectively experiences gained by and in them. Any prediction of performance type by attitudes must involve therefore more fuzziness than one of particular action. b) Lifestyle-related attitudes are to be taken not only as independent variables of one’s lifestyle performance but as reflections of one’s former actions and learning by success just as much. Looking at it from both aspects, we may expect even lower associations between attitudes and lifestyle patterns than we might do in the common case.

To test our fourth assumption two analyses of discriminance were carried through taking the 15 lifestyle clusters as dependent groups.

The 7 scales of General Life Orientation as independent variables permit a correct classification of 15.5 % of all respondents. This means a 2.3 fold of a random classification (6.7 %). The best predictions refer to the following groups: Extremely reduced amount of shopping (no 5): 49.4 % correct classifications; young families of working parents tending to convenience food (no 2): 32.3 %.

The 13 scales of Orientation towards Nourishment permit a correct classification of 21.2 % of cases, i.e. a 3.2 fold of random. The most exactly predicted groups are here: young families of working parents tending to convenience food (no 2): 45.1 %; Extremely reduced amount of shopping (no 5): 29.6 %; Single elderly coffee drinkers at a lower level of education (no 10): 27.9 %; Single or couple, elderly health fans (no 6): 22.4 %.

These results proved statistically significant with respect to moderate levels of various indicators of power and fit. The striking means of particular scales per group are shown in the description of groups in section 4.1, and, referring to the exploratory character of this paper, there is no need for a detailed comment here.

As a result, we can now specify our fourth assumption in this way: In spite of all theoretical restrictions mentioned above, indicators of mentality prove to be moderately effective predictors of a diarist's style affiliation, at least in a few dimensions of general life orientation and orientation towards nourishment. The power of style-discrimination is greater with the latter scales, according to the higher affinity between the operationalization of types by means of food and beverage indicators and the particular dimensions of attitudes.

4.5 Ecological consciousness as explanandum

Being associated with a type of lifestyles means to be involved in a special set of habits and frames. It has been stepwise acquired and assimilated in a long period of one's biography, and will direct one's orientations and behaviours in a long-term perspective as well. Consequently, actual lifestyle performance must prove true as an explanans of actor's general beliefs, value-orientations, or central life interests in a more fruitful way than social class or other features of macro-structural position do (Lüdtke 1955a, Georg 1998, Spellerberg 1996).

According to this presumption, and in a special sense of our fifth hypothesis, we expected to find, among the 15 types of shopping (life-)styles, some that would show values significantly above or below average on the scales of orientation towards conservation. We did so since

conservation as an object to attitudes is, no doubt, an important issue for a consumer's way of using resources and accepting restrictions, even at using fast moving goods.

In agreement with this idea⁸, 5 subgroups are accentuated in the dimension of

Disapprobation of Conservational Interventions:

above average: no 7 (young consumers with low-critical attitude, 0.26); no 10 (single elderly coffee-drinkers, 0.28);

below average: no 4 (large young families with well-equipped homes and gardens, -0.49); no 6 (single or couple, elderly health fans, -0.27); no 11 (drinkers of noncarbonated water, -0.27);

and 2 subgroups in the dimension of

Conservation at One's Personal Disposal:

above average: no 6 (see above, 0.30);

below average: no 2 (young families of working parents tending to convenient food, -0.29), whereas there are no substantial differences in the dimension of conservation as a Macrolevel Concern.

One-factorial analyses of variance carried through with lifestyles as (treatment) groups falsify the null-hypothesis supposing no differences of conservational orientations between the groups, and that with respect to each dimension. The results are summarized in table 4.

⁸ See also ALSICAL dimension 2 in table 1.

Table 4: ANOVA Ecological Consciousness by lifestyles

Scale	source of variation	sum of squares	df	mean of squares	F	p
Disapprobation of Conservational Interventions	between groups	178.977	14	12.784	13.281	.000
	within groups	4246.023	4411	.963		
	total	4425.000	4425			
Conversation at One's Personal Disposal	between groups	101.690	14	7.264	7.411	.000
	within group	4323.310	4411	.980		
	total	4425.000	4425			
Conservation as a Macrolevel Concern	between groups	50.755	14	3.625	3.656	.000
	within groups	4374.245	4411	.992		
	total	4425.000	4425			

5. Conclusion

Our initial question: do shopping styles as patterns of everyday consumption prove substantial indicators of lifestyles, can be answered in the affirmative now, though we have to concede some restrictions. Our findings clearly show that even the consumption of fast moving goods, hardly symbolizing an expressive function for the customers at first sight, are imbedded in broader lifestyles. After having joined 15 plain clusters of shopping performance with respect to selected goods from the fields of food, beverages and personal hygiene to their co-varying features of social position and mentality, we found most of them to represent meaningful patterns of conduct of life: normatively framed, and socially adjusted types of habits and routines. Considering the narrow selection of variables of consuming behaviour available from the GfK data, a clear-cut congruence of shopping styles with lifestyles differentiated in recent social research could not be verified, though. Variables of social position like age, size of household and economic level seem to be more effective in the differentiation of styles than mental variables, which is, in a way, a selective effect by the shopping data themselves. Our five presumptions largely stood the test, however we see fit to modify or specify them in a few points:

The shopping styles can be read as simplified copies or segments of complex lifestyles in so far as their performative cores are associated with several variables of social position and mentality – an indication of the structural as well as motivational integration of the behaviour patterns represented by the clusters.

The fifteen style types could be reduced to a few dimensions of orientation of action. In doing so we found some, though not exhausting, correspondences with the general life-style typology by Sobel (1981, 1983), as well as with the theoretical dimensions of orientation modernism and radius of action. Three further dimensions were found by an additional ALSCAL analysis of the similarities between clusters: quantity and wideness of consumption (indicating the SES axis), quality and modernity of taste and design (similar to “modernism”), and attitudes towards conservation.

It seems to be arbitrary so far to attempt, only by means of inductive interpretation, a theoretical integration of these different co-ordinates of the general meanings of shopping, respectively life styles. This could be a challenge for further investigation into the ways of the reproduction of lifestyles by consumption.

In applying the life style approach to the explanation of shopping behaviour we postulated it to be highly constant over time. If shopping patterns are copies of lifestyles, single shopping acts of the members of a lifestyle group must not necessarily be repeated within a certain period of time, but a certain constancy of an individual consumer’s association with a particular pattern or style must be given therein. This theoretical postulate proved true, at least for the period of one year: We found remarkable measurements of constancy of style associations throughout the year, by means of stepwise comparing the data per quarter and of analyses of discriminant done quarterly predicting identical groups at the time by the shopping variables as well.

Characteristics of mentality proved to be rather effective predictions of style associations, and that all the more the closer the attitudes in question are to the behaviours, i.e. buying food, beverages or goods for personal hygiene. Thus, the dimensions of orientation towards nourishment permitted somewhat better predictions than those of general life orientation.

Reversing our logic of analysis we considered value orientations of a specific kind to be outcomes of lifestyle practice. In doing so, our style types proved to be moderately effective explanantia of ecological consciousness as such kind of value orientations, with this, those dimensions of orientation that are closer to personal concern, are clearly dependent on life style, whereas differences in attitudes on the macrolevel of conservational policy are not substantial.

If only the effects of socio-economic variables on style association, we did not quantify more detailed in this paper, would be taken into account, our analysis might be exposed to the objection of being trivial: it is notorious in the field of research on consumption after all that consuming patterns are dependent on given resources/restrictions in a certain way.

Therefore, we put up the theoretical relevance of our contribution for discussion by the following statements:

Patterns of shopping behaviour on the microlevel are imbedded in general lifestyles, and this becomes apparent even in the area of fast moving goods. Further refining and specifying relationships of such kind might improve the definition of target groups and market segments in everyday consumption.

The explanation of shopping patterns according to the lifestyle approach might enlarge our knowledge about the development and framing of consumers' preferences – probably a useful auxiliary service of sociology to the micro-economics of consumption.

Contact

Prof. Dr. Hartmut Lüdtke and Jörg Schneider
Institut für Soziologie, Philipps-Universität Marburg
Ketzerbach 11
35032 Marburg
Tel. 28 24584 (Prof. Lüdtke)
Tel. 28 24588 (Mr. Schneider)
Fax 28 28978
luedtkeH@mail.uni-marburg.de
schneidj@mail.uni-marburg.de

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