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# **ENVIRONMENTAL HUMAN-FRIENDLINESS AS A CONTEXTUAL DETERMINANT FOR QUALITY OF LIFE**

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## **ABSTRACT**

The aim of the article is to define some criteria of human-friendly environments and to explain why the concept of environmental human-friendliness (EHF) is important in the analysis and improvement of the quality of people's lives. EHF is a complex multi-dimensional and multi-level concept that refers to environments or settings which provide support to individuals and different groups so that they can implement their goals or projects, with a potential impact on the subjective well-being. EHF can be described and assessed by an individual criterion (person-environment fit) and a group criterion (collective environment fit). A heuristic model of the conditions for EHF is presented that can be applied in the analysis of the context of well-being and in the envisioning phase of the improvement of conditions for the quality of life.

Key words: Environmental human-friendliness, quality of life, person-environment fit, collective environment fit, participatory planning

## **LA QUALITE AMBIENTALE COMME DETERMINANT CONTEXTUEL DE LA QUALITE DE VIE**

L'article cherche à définir quelques critères d'environnements humains et à expliquer pourquoi le concept de la qualité humaine de l'environnement (QHE) est important dans l'analyse et l'amélioration de la qualité de vie des gens. QHE est un concept multi-dimensionnel qui réfère aux environnements ou milieux qui supportent les individus et groupes divers de la façon qu'ils puissent réaliser leurs buts ou projets avec un certain impact pour le bien-être. QHE peut être décrit et évalué par un critère individuel (la compabilité avec la personne et son environnement) et un critère collectif (la compabilité collective environnementale). Un modèle heuristique des conditions pour QHE est présenté qui peut être appliqué dans l'analyse du contexte du bien-être et dans la phase de planning des conditions de la qualité de la vie des groupes différents.

Les mots clefs : La qualité humaine de l'environnement, la qualité de vie, la compabilité avec la personne et son environnement, la compabilité collective environnementale, participation.

## QUALITY OF LIFE AND ITS LACK OF CONTEXTUAL EMBEDDEDNESS

The quality of life issues have during the past decades been on the agenda of positive psychology, which strives to change the focus of the discipline from a preoccupation with repairing maladjustment and mental illnesses to the promotion of positive features that make life worth living. Nevertheless, 'quality of life' itself emerges from the studies as a fuzzy concept. It is not only multi-dimensional and multilevel, but it can also be approached from a great variety of angles (Campbell et al., 1976; Kahneman et al., 1999). Several researchers claim that quality of life is a holistic phenomenon comprising both a subjective, experiential side and an objective, material and socio-cultural embeddedness that can be described by the metaphor "having, loving, being and recently even doing" (Allardt, 1989). Most psychologists, however, only deal with the subjective interpretation of quality of life. Its criteria can then be described, in the words of Seligman and Csikszentmihalyi (2000, 5), as "well-being, contentment and satisfaction (for the past), hope and optimism (for the future) and flow and happiness (in the present)".

Nevertheless, the problem with most studies on quality of life is that their contextualisation, in terms of concrete living environments, is rather modest. The question concerning from which and what kind of contexts do the experiences of well-being emerge and how can the transformation of context improve life satisfaction or even hope, have been ignored.

Studies within environmental psychology, which focuses on the meaning and impact of the physical environment on human experiences and transactions, have been able to show, how the person-environment fit or the congruence with residential or work settings is a significant determinant of human well-being (Stokols, 1979; Wallenius, 1999). Some environmental psychologists have recently started to design programs to study the quality of place and community life to inform politicians, policy makers and planners about the contributions of place to the well-being of the users in particular areas (Marans, 2003).

There is, however, a shortage of theories on what a good environment is (Taylor, 1998), especially ones that can provide models and criteria to be used as a contextual determinant in the assessment and improvement of the quality of people's lives. I argue that the research on subjective well-being and also positive psychology will benefit from recognising that the living environment is an important contextual determinant that should be observed in the analysis and efforts to improve the quality of life in general, as well as in specific domains.

The aim of this article is to present some criteria of human-friendly environments and to explain why the concept of environmental human-friendliness (EHF) is important in the analysis and improvement of the quality of people's lives. The paper begins with an explanation of the integrated theoretical framework of environmental psychology and participatory planning, which is followed by a presentation of two core criteria and a heuristic<sup>1</sup> model of the conditions for environmental human-friendliness. The research is based on a literature review and further elaboration of a set of comparative studies on child-friendly settings in Finland and Italy (Horelli and Prezza, 2004).

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<sup>1</sup> A heuristic or a pragmatic can be defined as a strategy for directing search processes or for applying information in a certain class of situations.

## **Framing the Approach to Environmental Human-Friendliness**

The chosen framework for defining environmental human-friendliness (EHF) and its context of application comprises an integration of the perspectives of environmental psychology and that of participatory or collaborative planning.

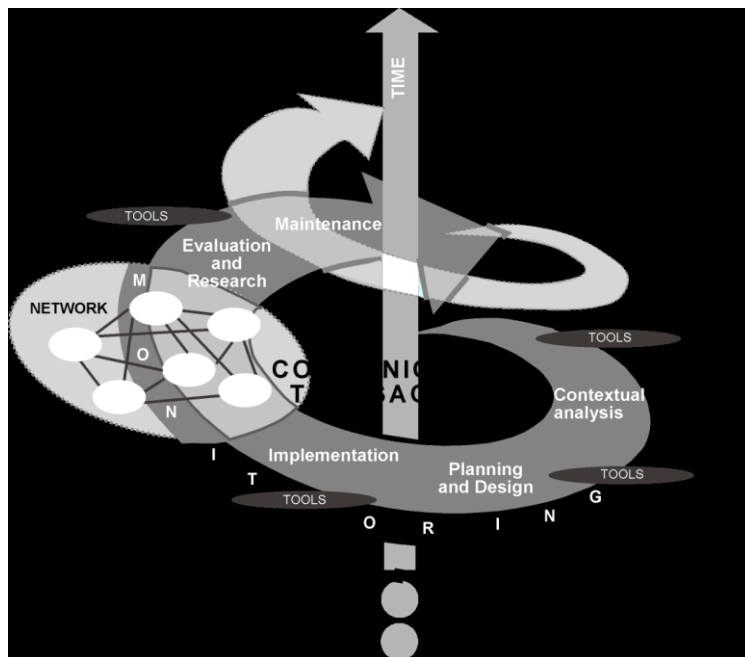
**Environmental psychology**, which shares the spirit of positive psychology, is often regarded as a subdiscipline of psychology or social-psychology. The approach to environmental psychology that has been adopted here, however, finds its home within an interdisciplinary environment-behaviour-design-research. The latter is influenced by the psycho-social and behavioural processes of different individuals and groups of people in diverse settings, in the varying phases of the cycle of research, policy planning, design, implementation, and evaluation (cf. Moore, 1987; Horelli, 2002). Planning is regarded in this framework as the provider of support to the communicative transactions that enhance the fit or congruence between the intentions of the users and their settings. The approach also implies a transactional ecological perspective, which means that the development and behaviour of individuals, as well as the enhancement of human-friendly settings can only be fully understood in the multi-dimensional and multi-level context that they live in. Bronfenbrenner's (1993) model of environmental transactions and development, which is influenced not only by direct involvement with the micro-setting, such as the home or the school, but also by the interactions within the meso-system (home-school-youth club), exo-system (adult friendship and workplace relationships) and macro-systems (cultural and societal traditions and beliefs), is seminal here.

**Participatory planning** is an other indispensable perspective of the framework, as the understanding, appraisal and application of EHF is particularly important in the context of intentional transformation of an area or a neighbourhood. The procedural theories of planning should be able to explain, how participation and collaboration can be organised in such a way that the planning cycle becomes an arena for learning and capacity building of citizens, experts, and decision makers.

Participatory or collaborative planning and development is defined here as “a social, ethical, and political practice in which women and men, children, young and elderly people take part in varying degrees in the overlapping phases of the planning and decision-making cycle that may bring forth outcomes congruent with the participants' needs, interests, and goals” (Horelli, 2002). Figure 1 describes the methodological schema that has been developed on the basis of projects with women, children, and young people. The purpose of planning is to support the communicative transactions of the participants in a specific environmental, organisational, economic, cultural, and temporal context. The various transactions taking place are supported by a multitude of enabling tools during the overlapping and iterative phases of the planning and development process – initiation, planning or design, implementation, evaluation, and maintenance. The tools are both enabling methods (consensus building instruments and other heuristics) as well as traditional research methods. An on-going monitoring and self-evaluation as well as action research provide the participants with feedback on the quality of the change process and its results.

Citizen groups tend to see participatory planning and development as a form of empowerment, if it is fairly organised. Collaborative planning can, in fact, also be considered as a site of agency-building and an opportunity for initiatives leading to positive youth development (Larson, 2000). Booher and Innes (2002) have, however, claimed that only the network ap-

proach to collaborative planning provides an authentic situation for participation and the consequent psychological growth.



**Figure 1.** A schema of the methodological approach to participatory planning which supports, with a set of enabling tools and different kinds of knowledges, the communicative transactions of children, adolescents and adults.

The process of design and planning is iterative and recursive by nature. The designer or planner goes back and forth between the problem definition and its solution, between the material and the symbolic level of subjective, communal and societal awareness building. According to Zeisel (1981), two types of information are used in this creative process. On the one hand, synthetic image information provides a general understanding of important issues or of the physical ideas pertinent to their resolutions. Analytic test information, on the other hand, is necessary for evaluating the strengths and weakness of a given hypothesis in design.

Even if it is oversimplifying to speak about the varying phases in planning, it is evident that different kinds of knowledges are required in the varying stages of the planning process. At the initial phase in which the contextual analysis and problem definition takes place, the information and tools are mainly analytic and the applied concepts or theories are explanatory (describing and explaining what phenomena are). In the envisioning phase in which the desired future is drafted and the objectives chosen, the tools become expressive, conceptual and even political. Then the concepts or theoretical orientations are synthetic and conspicuously normative. The latter state or prescribe what a good environment is, how to do things better or what ought to be done. This is the phase where the content of the plans are shaped, negotiated and decided. Therefore, it is pertinent to have such concepts of substance that evoke mobilising images among the stakeholders, the planner and decision makers. Consequently, the promotion of EHF in the context of participatory planning requires four overlapping bodies of knowledge: explanatory and normative theories that deal with both substance and process of planning (see Lang, 1991). Thus the application of theories in the context of participatory planning means a conscious blurring of different types of knowledges and concepts as well as a blending of knowledge generation and its use in practice (Schneekloth, 1991).

## Environmental Human-Friendliness as a Multi-dimensional Concept

Several researchers and planners have complained about the scarcity of concepts and models on good environments in planning and its evaluation (Lang, 1991; Taylor, 1998). As Unicef (2002) asked the author to work on the potential criteria for a Child-friendly City, an analysis of the theoretical literature and some of the research on environmental quality for adults and children, was conducted (Horelli, 2004). Many interesting theories exist on environmental quality, but they seem to address the subject from different perspectives. Some of the *theories are substantive*, describing the content from an ecological (Agenda 21; Habitat; ecopolis-literature; Koskiahio, 1997), socio-cultural (feminist, Research Group for the New Everyday Life, 1991), ethical and political (Massey, 1995), economic (Harvey, 2000), psychological and phenomenological, aesthetic, or from a physical perspective (Lynch, 1984). Other *theories are procedural*, like those dealing with regime and governance theories (Douglas and Friedman, 1998), communicative or collaborative planning (Healey, 1997; Booher and Innes, 2002) or place-based politics (Harcourt and Escobar, 2002).

The analysis of the literature, mentioned above, disclosed that not only various approaches exist to environmental quality, but that most of them put forward a multitude of variables which make it difficult to form a holistic picture of what good environments are or should be like. The dimensions that were repeatedly considered essential to those groups that are dependent on their localities or neighbourhoods, such as children and their carers, elderly people and disabled persons, are: housing and dwelling, basic services (health, education, transport and leisure), participation, safety and security, family, kin, peers and community, urban and environmental qualities, provision of resources, ecology, sense of belonging and continuity, good governance.

As the dimensions can be considered fields or qualities that roughly tap a desirable environment for the groups mentioned above, they are normative. In order to find out whether the 10 normative dimensions cover *the scope of EHF*, they were tested with 12-year-old children, their parents, elderly people and professional workers in two suburbs of Helsinki and Rome (Horelli, 2004; Haikkola and Horelli, 2004; Pacilli et al., 2004). The structured interviews with the Finnish and Italian samples confirmed the importance of these dimensions. The Italian sample came up with additional categories which, however, dealt with the characteristics of the subjects.

The advantage of a set of normative dimensions is that they provide scope for environmental quality. They can be used as a rough check-list for the qualities that should be in the plan. On the other hand, in depth assessments require more detailed instruments, such as structured interviews or questionnaires. However, the 10 normative dimensions disclose that many of the questionnaires, such as the Perceived environmental Quality instrument (PREQ, Bonaiuto & Bonnes, 2002), lack the dynamic dimensions of participation and governance.

The normative dimensions describing the scope of EHF are analytic and they function well in the evaluative phases of planning (contextual analysis or evaluation of the results), but as they are not synthetic and image-provoking, they cannot function as props in the envisioning phase of planning. Therefore, more dynamic and empowering concepts are needed that not only simultaneously cover several dimensions of human-friendliness, but also tap the transactional relationship between the person or groups of people with their settings.

## PERSON-ENVIRONMENT FIT AS THE INDIVIDUAL CRITERION OF EHF

According to Kurt Lewin, behaviour is the function of the person and his/her (psychological) environment. The quality of this relationship, although not mentioned by this pioneer of psychology, can be described by the concept person-environment fit (P-E fit). This concept has been extensively used in the psychologies of work, career, and personality (Edwards et al., 1998). Two traditions have dominated such research: the tradition of individual differences and that of organisational psychology. In both traditions the fit refers to the congruence between personality characteristics, personal abilities or needs, and the social and organizational setting.

In environmental psychology the concept has been applied to the study of settings for elderly people and people with disabilities. Wallenius (1999) has used P-E fit to examine the relationship between young adults and their environments. Participation in environmental design and planning has also been considered as an attempt to enhance environmental congruence (Horelli, 2002; Kytta et al. 2004).

**Table 1. Examples of operationalisations of the concept person-environment fit (P-E fit).**

<b>PERSON-ENVIRONMENT FIT RELATED RESEARCH</b>	<b>WAYS OF OPERATIONALISING THE CONCEPT PERSON-ENVIRONMENT FIT</b>
<b>Stokols (1979)</b>	Perceived congruence is a co-function of the ratio between actual and ideal levels of environmental support and the motivational importance of the needs or goals to be facilitated.
<b>Wallenius (1999)</b>	Subjective P-E fit is the perceived supportiveness of the environment defined as perceived opportunities of realising personal projects of motivational significance in the behaviour settings of everyday life.
<b>Kytta (2003)</b>	Perceived P-E fit is operationalised by the availability of preferred affordances that can be actualised by using, shaping or designing.
<b>Vygotsky (1978); Lawton (1980)</b>	The P-E fit is expanded by the “zone of proximal development” (ZPD), which means the difference between the individual and the potential level of development. The latter refers to the level that the child might achieve under the guidance of an adult or an older peer. Correspondingly, an elderly person needs an appropriately demanding or pressing, not too much nor too little, environment.
<b>Bonaiuto &amp; Bonnes (2002)</b>	The P-E fit is implicitly operationalised by the high score on the Perceived Environmental Quality instrument (PREQ) and the Neighbourhood attachment scale (NA).

The P-E fit is also closely associated with the human well-being and quality of life (Stokols, 1979; Marans, 2003). If the fit is poor, the result can be felt as stressful. Environmental stress can be alleviated, if the individual has even a slight possibility to influence the situation or to control the stressful causes of the environmental discrepancy. Kaplan (1983) points out, however, that as it is impossible to achieve full control of the environment, the fit should be as-

essed by tapping how the environment supports goal achievement, and preferably in a way that takes into consideration the flow of time past, present and future. Thus the seeking for congruence has an evolutionary perspective to it. Canter (1991) sees the congruence between the person and the environment as a process of adaptation or even survival in which the person strives to achieve his or her goals in the everyday settings by perceiving, assessing and behaving purposefully in the context.

In other words, *although the P-E fit basically refers to the quality of the relationship between the person and the environment, the experience of congruence seems to imply that it also refers to the perceived quality of that environment*. Several ways exist to operationalise the P-E fit, examples of which have been gathered in Table 1 (see Horelli, 2004).

Whatever the operationalisations of P-E fit are, the perceived congruence can be applied as a dynamic, individual criterion of environmental quality, because it reveals *the mechanism of influence that good environments have, namely the supportiveness of personal goals or projects which in turn has connections with life satisfaction or well-being*. However, this criterion has to be complemented by another one, since the focus on P-E fit tends to ignore the content of the environment. In addition, as planning mostly deals with solutions for groups or segments of people, the complementary criterion has to focus on the collective transactions of specific groups with specific contexts.



## COLLECTIVE ENVIRONMENT FIT AS THE GROUP CRITERION OF EHF

*The collective environment fit refers to the perceived quality of the relationship of a group of people with their environment, and simultaneously to the perceived quality of the specific environment for that group.* The collective environment fit can only be operationalised by concepts referring to environmental structures that certain groups of people can appropriate in a way that also produces a high degree of P-E fit, and eventually well-being or life-satisfaction. The groups that I am interested in are those that are highly dependent on the support of their local environments, which does not exclude several other groups of people.

The collective environment fit can either be consciously or unconsciously similar and shared. In both cases, the collective fit has to be examined in relation to the group's appropriation of the features, patterns and structures of the area. The question is then, *what are the environmental features, patterns and structures that provide collective fit for locally dependent groups?*

A collection of supportive patterns or structures that might potentially bring forth collective environment fit, has been gathered in Table 2 (see Horelli, 2004). Most of the patterns and structures in Table 2 transcend the different levels and areas of life (Bronfenbrenner's micro – macro levels). However, they<sup>2</sup> share the idea<sup>(1)</sup> that the users - children, adolescents and elderly people included - should be actively involved in the maintenance and improvement of these settings. Thus, the scope of the concepts in Table 2 cover, at least implicitly, most of the 10 dimensions of environmental human-friendliness. For instance, the networks for social cohesion do not flourish unless there is good governance and some resources. The consequences of the networks are characterised by safety and security, and by a sense of belonging.

The set of supportive patterns and structures presented above, do not paint a holistic image of an ideal society, like the utopias from Plato to Moore, Owens and Fourier that have created strong images of a desirable future which is also materially and physically embodied (Kanter, 1972). Nor do they describe an ideal town or city, like Ben Howard's Garden city or Corbusier's La Ville radieuse. Nevertheless, the examples in Table 2 might *provide collective environment fit for locally dependent groups in the form of support structures that enhance the opportunities for meaningful action.* It is, however, necessary for pragmatic and theoretical reasons to try to model the conditions and content of EHF for these groups in a more tangible way.

**Table 2. Examples of supportive patterns and structures that might bring forth collective environment fit for groups that are dependent on their neighbourhood.**

<b>CONCEPT</b>	<b>DEFINITION</b>	<b>LEVEL</b>	<b>EXAMPLES</b>	<b>COMMENTS</b>
1. Behaviour setting (Barker, 1968)	An ecobehavioral context consisting of a standing pattern of behaviour and milieu.	Micro	A school, a nursery, a youth centre, a soccer game.	A useful analytic concept
2. Intermediary level (Research Group of Everyday Life, 1991)	A new level between the private world of households and the public and commercial world of institutions and enterprises.	Micro	A co-housing unit, a resource centre	Originally a normative mobilising concept for the enhancement of new structures. Later it has attained explanatory power.
3. A supportive infrastructure of everyday life (Horelli & Vepsä, 1994)	A structure in the neighbourhood comprising environmentally friendly housing, services, mobility management and local initiatives that support the residents irrespective of age and gender.	Meso	A well-functioning neighbourhood (Kulosari, Finland).	A normative and explanatory concept for analysing the supportive environmental elements of daily life.
4. A network for social cohesion (Horelli, 2003)	An intentionally interconnected network of real and virtual nodes and links.	Micro, meso, exo, macro	The North Karelian youth-network in Finland, Let's go to school-projects in Italy.	A dynamic concept that can be used in planning with a network approach.
5. A glocal support network (Harcourt & Escobar, 2002)	A global and local, virtual and real networking and mesh-working process around the body, the home, the community and the public space.	Micro-macro	"Women in defense of place", The network of women's resource centres in Europe	A dynamic and mobilising concept under construction.

## **A MODEL OF THE CONDITIONS FOR A GOOD ENVIRONMENT FIT FOR LOCALLY DEPENDENT GROUPS**

*What might be the elements that constitute a model of the conditions for a human-friendly local environment?* Concepts, like the supportive infrastructure of everyday life and the network of social cohesion in Table 2, seem to have special significance for the creation of EHF. I have constructed a heuristic ideal model of the conditions for a good environment for locally dependent groups. This meso-level model deals with a supportive infrastructure that provides elements that enhance networking and thereby social cohesion (see Figure 2 and concepts 3, 4 and 5 in Table 2). The model consists of physical, functional and participatory structures which the inhabitants or users might appropriate and turn into a shared culture of community or even social capital. The former provides opportunities to experience a sense of community which is one of the conditions for well-being of adults and adolescents, regardless of their social and level of schooling (Prezza, 2004). Social capital refers to the possibility to mobilise resources, embedded in social relations, for the benefit of some purpose (Lin, 2001). Social capital has, however, recently been criticised for being effective in the creation of social cohesion only if the varying webs of different stakeholders are fairly supported and organised (see Allen, 2004).

It is possible to plan and even to implement the physical, functional and participatory structures of the model. However, the communal culture or social capital is something that emerges only, if the residents and other stakeholders, such as community and service delivery workers etc., are willing to appropriate the structures and to network in a way which creates trust and a sense of community.

The heuristic model provides an explanatory tool to be applied in the phase of contextual analysis and evaluation of planning. The model has been used, for instance, in the assessment of the child-friendliness of the Pihlajisto neighbourhood in Helsinki (Haikkola and Horelli, 2004). It can also be applied to evaluate the impact of concrete neighbourhood structures on the well-being and quality of life of residents, if it is integrated with survey instruments that tap the sense of community and the degree of neighbouring of the residents (see Prezza, 2004). Recently, the model has turned out to be a useful synthetic tool, when the rehabilitation plans of two neighbourhoods have been negotiated as part of a major time planning project in Helsinki and Turku, Finland (The Daily Routine Project, 2004).

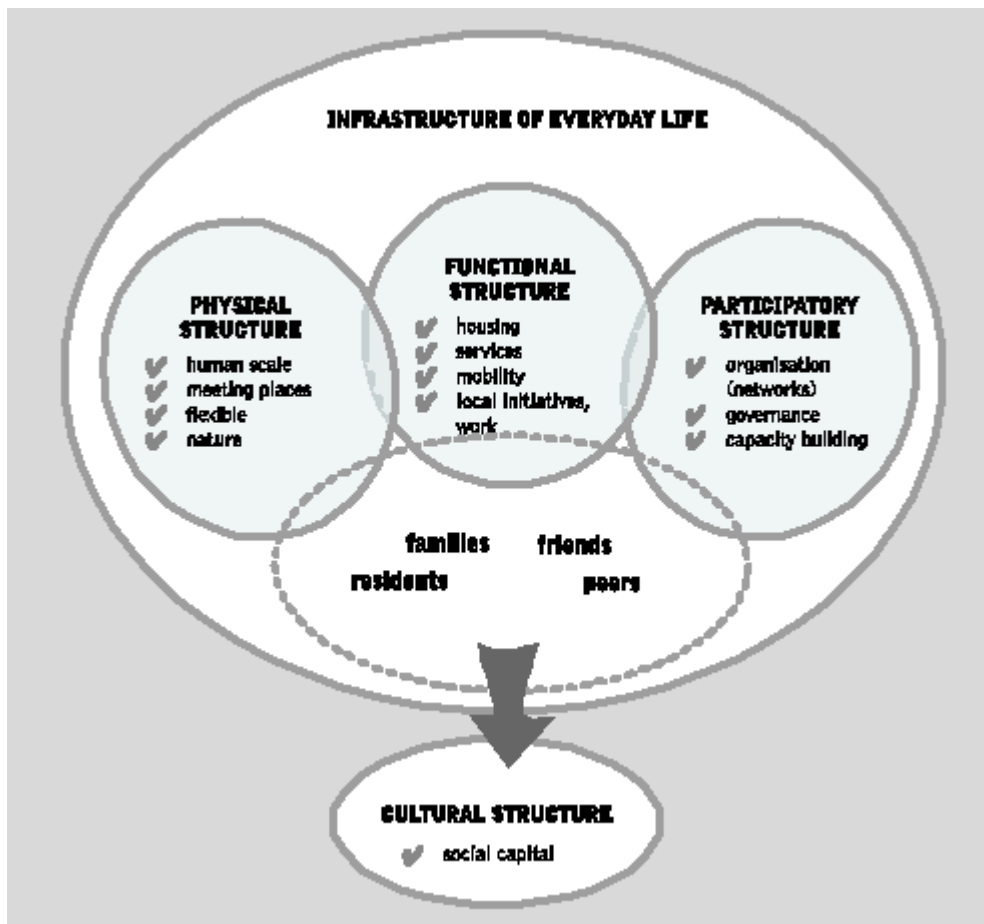


Figure 2. The heuristic ideal model for the conditions of a good environment for locally dependent groups comprises physical, functional and participatory structures that the users can appropriate and gradually turn into a cultural structure in which social capital may emerge.

## DISCUSSION AND CONCLUSIONS

It is finally time to define what EHF is, and to discuss why it is important to take EHF seriously in connection with the quality of life. *Environmental human-friendliness is a complex multi-dimensional and multi-level concept that refers to environments or settings that provide support to individuals and different groups so that they can implement their goals or projects, with a potential impact on the subjective well-being.* EHF can be described and assessed by two core criteria. The individual criterion, person-environment fit, reveals the experiential side of environmental quality, but it does not disclose the content of the environment, at least not in the sense that it could be applied in planning or in conceptual development. The group criterion, collective environment fit, refers to concrete environments or types of environments that provide support for certain groups and possibly not for others. Collective environment fit has been examined here with locally dependent groups, such as children, their parents, elderly people and people with disabilities, without excluding others who like to be locally engaged. This is a major group amounting almost to 50% of residents in general. A heuristic model of the positive conditions that might bring forth collective environment fit for locally dependent groups, has been presented here. The meso-level model can be applied in the contextual analysis of planning and in the evaluation of the existing neighbourhoods. It can also be used with structured survey instruments to assess to what extent the physical, functional and partic-

ipatory structures of a certain neighbourhood or locality will push forward a sense of community and the subsequent well-being of the residents and users.

In addition to the defining of criteria and the heuristic model of EHF, it is important to recognise the nature of the collaborative creation of human-friendly environments. The promotion of supportive environments through participatory planning requires, besides the application of a set of relevant enabling methods, different types of knowledge, analytic and synthetic, that deal with both processes and the content. It might, however, be difficult for the same person to handle many types of knowledges, because the synthetic and image-providing knowledge tends to be quite “coarse-grained” (cf. Figure 2), whereas the analytic and explanatory knowledge consists of detailed variables.

Consequently, at least two reasons exist for taking EHF seriously in the connection of quality of life. Convincing research indicate that there is a close connection with the territorial sense of community and neighbouring to subjective well-being or life satisfaction (Prezza, 2004). However, this research has mostly taken place in a vacuum, without analysing the conditions which bring forth the experiential quality of life. The model presented here provides an explanation of what kind of structures and mechanisms might constrain or produce a sense of community for a major group. Thus, EHF is a significant contextual determinant in the emergence of well-being that should be recognised in the analysis and conceptual development of quality of life.

An other important reason is the fact that studies concerning quality of life (and also positive psychology) are not only about analysis and assessment of the state of the art, but also an endeavour to improve the quality of people’s lives (see Seligman and Csikszentmihalyi, 2000). The latter goal is difficult to achieve without the participation of people themselves in the change processes affecting the conditions and context of their well-being. Unfortunately, the settings of the western world provide too few possibilities to get involved, although successful opportunities for initiatives have proved to be a determinant for positive development, especially among adolescents. The impact of the latter is reflected in the strengthening of self-esteem and in the acquirement of a new language of agency (Larson, 2000).

Involving people in processes that increase agency and meaning in life requires, however, that the traditional experimental design and methods have to be complemented by action research, multi-level design and qualitative methodology which are sensitive to different kinds of knowledges (see also Prillentsky et al., cited in Prezza, 2004).

This article has given only few examples of patterns and structures that allow to make the claim that environmental human-friendliness is a significant contextual determinant of quality of life. Further studies should be conducted in different types of human-friendly settings that are supportive to other groups than the locally dependent ones. This will be a challenge to both research and practice, to analysts as well as concrete promoters of the quality of people’s lives.

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### **CURRICULUM VITAE**

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