

RESTORATIVE EXPERIENCE, SELF-REGULATION, AND CHILDREN'S PLACE PREFERENCES

KALEVI KORPELA¹, MARKETTA KYTTÄ² AND TERRY HARTIG³

¹*Department of Psychology, University of Tampere, Tampere, FIN-33014, Finland;* ²*Centre for Urban and Regional Studies, Box 9300, 02015 TKK, Finland;* ³*Institute for Housing and Urban Research, Uppsala University, Box 785, 801 29 Gävle, Sweden*

Abstract

We examined the role of restorative experience and self-regulation in the formation of place preferences by Finnish children. Girls and boys ($n = 55$) aged 8–9 or 12–13 and living in downtown Tampere or Helsinki answered open- and closed-ended questions in a structured interview. One or both parents completed a questionnaire. We did not find statistically significant associations between age or gender and type of favorite place, nor was a particular type of favorite place named disproportionately often, independent of age and gender. The latter result contrasts with previous findings with young adults. However, like young adults, over half of the children appeared to use their favorite places for cognitive restoration. One-third of the children reported using their favorite places for emotion-regulation. Use of the favorite place for restoration and emotion-regulation did not necessarily imply visiting the favorite place alone; however, 12–13-year-olds were more likely than the younger age group to visit the favorite place with friends. Surprisingly, many parents did not know their child's favorite place.

© 2002 Elsevier Science Ltd. All rights reserved.

Introduction

In this study, we examine the role of restorative experience in the formation of children's place preferences. In doing so, we extend a line of inquiry on place attachment and restorative experience as reciprocally influential phenomena within self-regulation (Korpela & Hartig, 1996; Korpela *et al.*, 2001). As a process through which people maintain a balance between pleasant and unpleasant emotions and a coherent experience of self, self-regulation proceeds with the application of environmental as well as mental, physical, and social strategies (see e.g. Korpela, 1989; Epstein, 1991). Environmental strategies of self-regulation involve the use of places and place cognitions and affects. Just as attachments to one's parents or friends represent social strategies of self-regulation (Izard & Kobak, 1991), place attachments represent environmental strategies. Indeed, a person may become attached to a place because it supports self-regulation, in part by enabling positive emotional changes and re-

newal of cognitive capacities needed to process events that challenge self-experience (Korpela, 1989). Such changes characterize restorative experiences.

Previous studies in this series have used favorite places as a window into environmental strategies of self-regulation and, as an integral process, emotion-regulation. The evidence suggests that experiences commonly associated with favorite places involve changes in emotions and cognitions characteristic of restoration, and that favorite places typically have high levels of restorative qualities (Korpela, 1989; Korpela & Hartig, 1996). In the most recent study (Korpela *et al.*, 2001), the young adult participants identified natural and residential environments as their favorite places with disproportionate frequency, and they most frequently linked restorative experiences with natural favorite places. These findings about types of favorite places constitute a bridge to research on restorative environments, in which natural and residential environments have drawn the most attention (e.g. Hartig

et al., 1991; S. Kaplan, 1995; R. Kaplan, 2001; Kuo & Sullivan, 2001).

These earlier studies of restoration and self-regulation in favorite places involved adolescents or young adults, not children. In the present study, we asked children about their favorite places, with a view to the kinds of places they identified and whether and how those places provided for restorative experiences or otherwise aided self-regulation. Building on previous research, we took a particular interest in how the age and gender of a child related to the selection of a favorite place, experiences in the favorite place, and solo vs social use of the place for self-regulation. We also examined parental restrictions as a potential influence on favorite place selections.

Adults and children provide converging evidence that emotion- and self-regulation does occur in the favorite places of childhood. Studies of adults' memories of childhood favorite places (Lukashok & Lynch, 1956; Ladd, 1977; Cooper-Marcus, 1978, 1979; Hester, 1979; Wyman, 1985; Sobel, 1990) indicate that they provided feelings of security, privacy, and control. The need to be alone, the importance of hiding places, and the need to escape from social demands are commonly reported in these studies. Findings from studies with children and adolescents corroborate the significance of both solitary places and social places (Schiavo, 1988; Owens, 1988, 1994; Lieberg, 1994; Harden, 2000). They also reveal similarities between what children relate now and what adults remember about experiences in their favorite places. More direct evidence of common experiential content comes from Sobel (1990). After interviewing more than 100 adults about their childhood memories and 200 children about their favorite places, Sobel concluded that making and having a special place empowers children, supporting their sense of self and self-efficacy.

As a particular aspect of self-regulation, restorative experience commonly appears in studies based on children's accounts. For example, 9- and 12-year-old children described their favorite places as providing opportunities not only to enjoy many activities and play but also to clear their minds, relax, and pour out troubles (Korpela, 1989; Spencer & Woolley, 2000). For the 11–17-year-olds studied by Sommer (1990), favorite places provided relief from daily hassles and evoked feelings of well-being and peace. The 14–18-year-olds studied by Owens (1988) regarded natural settings as one of the best types of place to go for feeling better and getting things in perspective. The frequent mention of natural places and home as well as being away from every-

day demands, forgetting worries, and reflecting on personal matters indicates a link between favorite places and restorative experience in a manner similar to that seen with young adults (Korpela & Hartig 1996; Korpela *et al.*, 2001).

Given emotional outcomes of restorative experiences and the relationship between emotion- and self-regulation, one concern of the present study is the emotional experience of children in their favorite places. Thurber and Malinowski's (1999) study shows how emotional experiences and individual differences related to emotion may be responsible for differences in children's place selections and use. They found that 8–16-year-old boys with higher levels of negative emotion were more likely to favor places where they could be alone in a residential summer camp, whereas happier boys favored places where they could socialize. Boys with higher levels of negative emotion also were more likely to visit new places in camp than their less distressed peers. Bixler and colleagues (Bixler *et al.*, 1994; Bixler & Floyd, 1997) have shown that children's preferences for wildlands decrease with disgust sensitivity and negative emotions such as fear for animals, plants, weather, sounds or getting lost.

In addition to the need for a focus on the role of restoration, emotion-, and self-regulation in shaping children's place preferences, we see a need for further study of age variation in preferences for particular kinds of place. Although several recent studies corroborate previous findings that homes, natural settings, social and activity hangouts, and commercial environments recur in children's and youths' place preferences (Silbereisen *et al.*, 1986; Korpela, 1992; Lieberg, 1994; Owens, 1994; Malinowski & Thurber, 1996; Matthews & Limb, 1999), evidence of the kinds of places preferred by children of different ages appears mixed.

In particular, preference for natural settings seems to vary with a child's age in a complicated manner. According to an unpublished Finnish study, 7–9-year-olds preferred natural places more frequently than 10–12-year-olds (Pihlström, 1992). In Sommer's (1990) study, 11–13-year-old Estonian children preferred natural places more frequently than 15–17-year-olds. In contrast, Silbereisen *et al.* (1986) found that the preference patterns of favorite leisure time places of 12- and 15-year-olds in Berlin were quite similar. Both age groups favored sport locales and private homes most. Nature ranked fourth (9% of the places mentioned) among the 12-year-olds and sixth (6%) among the 15-year-olds, a seemingly small difference. Studies conducted in the United States have reported no differences in preferences

for natural relative to other types of places between 10-, 13-, and 17-year-olds (Schiavo, 1988) or between 8–10-, 11-, 12-, 13-, and 14–16-year-olds (Malinowski & Thurber, 1996). However, Malinowski and Thurber conducted their study in a camp setting, and Schiavo in a neighborhood with tree-lined streets, natural open spaces, and single-family homes with front- and backyards. Thus, the children they observed would have developed their preferences within a restricted set of alternatives that included numerous natural places. This fact may explain the absence of age differences in relative preferences for natural places. To avoid this problem in examining age variation in children's preferences for natural places in particular, in this study we sampled children of different ages in locations that offered a variety of natural, urban, and retail/commercial settings.

Previous research also leads us to consider gender differences in the place preferences of children. For example, results from different countries suggest that boys across the age range of 5–12 years tend to favor outdoor places whereas girls tend to favor indoor places (Sebba, 1991; Smith & Barker, 2000). These results are in accordance with the oft-cited results of a larger territorial range for boys than girls (Wohlwill & Heft, 1987) and a greater degree of mobility restriction for girls than for boys (Hillman & Adams, 1992; O'Brien *et al.*, 2000). In Sommer's (1990) study, 11–12-year-old Estonian boys were more likely than girls to mention not only a natural setting as their favorite place but also to mention relaxation, quiet and comfort as feelings experienced while in a favorite place. Lieberg (1994) found that 13–17-year-old Swedish girls preferred private favorite places whereas boys were more likely to prefer public places.

The studies showing gender differences in place preferences in turn draw attention to a child's peer-relations and parental restrictions on environmental exploration as influences on the evaluation of places and choice of a favorite place (see also Malinowski & Thurber, 1996; Kytta, 1997; Matthews & Limb, 1999). With explicit regard to peer relations, studies by Chawla (1992) and Silbereisen and Noack (1988) show that preferred places provide support for the developing self-identity, for social attachments to the peer group, and for the practice of social roles. The availability of privacy is also closely related to the achievement and development of self-identity and self-esteem (Laufer & Wolfe, 1976; Newell, 1994), and, as with self-regulation, possibilities for privacy regulation have been related to place attachment (Harris *et al.*, 1996). In Wolfe's

(1978) study, the meaning of privacy as control of access to a place where no one bothers one (autonomy) gradually increased with age between 4 and 17 years. However, the 8–12 age group regarded a private place most often as a place to be alone whereas the 13–17 age group began to mention the choice of being alone or with others. Opportunities for reflection in nondistracting circumstances and positive emotional outcomes of solitude have been mentioned at a noticeable frequency in favorite place studies (Korpela, 1992; Korpela & Hartig, 1996; Newell, 1997; Korpela *et al.*, 2001). Thus, in the present study, we also examined children's solo vs social use of a favorite place.

Restrictions, either physical (e.g. traffic) or social (e.g. parental fears), reduce the range of environments from which children can draw in forming their place preferences; the fewer the possibilities for wandering independently, the fewer the chances for finding a suitable place for self-regulation and creating emotional bonds to environment. Some studies indicate that city children denied the freedom to move around in the neighborhood may not find favorite places at all or have a limited access to different types of places. For example, in a study of children living in a low-income area in inner city London, 90% could not name a favorite place (Corbishley, 1995).

Parental restrictions on environmental exploration are mostly based on traffic (Hillman *et al.*, 1990) and the parents' conceptions of danger (Blakely, 1994; Valentine, 1995, 1997). Parents can impose at least two types of mobility restrictions. They may limit territorial range by allowing the child to move only a certain distance from home ('Don't go too far'; 'Don't go further than the playground'). They can also deny license to move to certain places or to cross streets alone. Older children normally have less restricted mobility than younger children. For example, previous interviews in the city of Tampere (one of the current research settings) showed that two-thirds of the 10–12-year-olds had no parental restrictions on their range, whereas half of the 5–7-year-olds were advised not to leave the home yard alone (Nummenmaa *et al.*, 1970; Setälä, 1972).

The connection between place preferences and independent mobility allowed by the parents is not well-documented. Matthews *et al.*'s (2000) interviews of British children aged 9–16 in rural villages constitute a rare example. They found that outdoor public spaces inhabited by other children but away from the 'adult gaze' were more important to the children than natural settings because children's access to the natural environment was restricted by parental

fears and fencing placed around private land. Thus, parental restrictions and their relations to the type of and distance to the child's favorite place were additional questions we addressed in the present investigation, in which children were studied in urban areas that imposed similar physical restrictions. Moreover, as place preference studies indicate that children often prefer places outside the control of the parents (*cf.* Moore, 1986), we considered the possibility that children do not always fully accept the restrictions their parents want to impose. Thus, we also wanted to know whether parents were aware of their children's favorite places.

Study aims

In sum, in the present study we examined variations in place preferences among children of different ages and of both genders, as well as situations before going to the favorite place, the need for emotional and cognitive restoration, and solo versus social use of a favorite place. We also looked at the relation of parental restrictions to place preferences.

Because of the mixed evidence concerning children's place preferences between 7 and 15 years of age, and because of earlier findings that children as young as 9 use favorite places for restoration and self-regulation, we selected 8–9-year-olds as the younger of two groups under study. We selected 12–13-year-olds as a comparison group, as earlier findings suggest that 12–13-year-olds enjoy fewer parental restrictions on independent mobility (Setälä, 1972) than children in younger age groups and their conception of privacy may include both being alone and being with friends (Wolfe, 1978). In addition to gathering information from the children in these two groups, we solicited reports from the parents about their children's place preferences.

The questions we addressed with the children's and parents' reports include the following:

1. Do natural and residential environments predominate in the place preferences of children as in previous samples of young adults?
2. Do children of different ages and gender have different preferences for particular types of places, especially natural places?
3. Do parents know their children's place preferences?
4. Do children of different ages and gender use favorite places for emotion-regulation and restoration to a different degree?

5. Do children of different ages and gender use favorite places for private or social purposes to a different degree?
6. How does the use of favorite places for private or social purposes correspond to their use for emotion-regulation and restoration?
7. Are parental restrictions on independent movement associated with the type of the favorite place and the distance of the favorite place from home?

Method

Participants and procedures

We recruited 8–9- and 12–13-year-old children from one school in the city center of Tampere (194 000 inhabitants) and one school in central Helsinki (550 000 inhabitants). During an initial visit to the children's respective classrooms, each child in the given class received a sealed envelope with a questionnaire addressed to his or her parent(s), together with a request for permission to interview the child. The permission requests and the parents' questionnaires were returned in the sealed envelopes to the school by the child or were mailed to the researchers. The parents marked whether one parent or both of the parents together filled in the questionnaire. Of the 145 children in the classes from which we recruited, we received completed parental questionnaires for 95. We selected children living less than 1 km away from the school for our sample.

Of the 55 children so recruited, 26 were boys and 29 girls. Of the boys, 15 were 8–9-year-olds and 11 were 12–13-year-olds. Of the girls, 13 were 8–9-year-olds and 16 were 12–13-year-olds. Twenty-nine were from Tampere and 26 were from Helsinki. All of these children walked to the school and lived in apartments. Eighty-two percent of the children had both parents living in the same household and 18% were living with a single parent. Seventy-five percent of the children had 1–2 sisters or brothers, and 23% were the only child in the family. Eighty-nine percent of the children had lived in the same city for the last 4 years.

The children were interviewed for 30–45 min at school during regular school hours with a structured questionnaire. Fifteen children volunteered for taking colored photographs with a disposable camera of their favorite place during their free time (see Figures 1–3).



FIGURE 1. An example of a favorite sport setting in Tampere.



FIGURE 2. An example of a favorite residential setting in Tampere.



FIGURE 3. An example of a favorite natural setting in Tampere.

Locations

Both the Tampere and Helsinki study sites are central city areas including apartment buildings, parks,

and residential services (i.e. shops, a library, playing and sporting grounds). In both cities, the study area is crossed by several streets that carry traffic of varying intensity. In both cities, the study area includes stretches of shoreline within 1.5 km from the children's school (lakes in Tampere and the Baltic sea in Helsinki). On average, the parents in Helsinki had larger incomes (3360–4370 euro/month) than the parents in Tampere (2350–3360 euro/month), a difference not so practically significant as it might appear, given the substantially higher costs of living in Helsinki. There was no difference between the Tampere and Helsinki samples in the average size of the family's apartment (100 m²) or in the average number of rooms (3.5) per apartment.

Measures

We developed the children's questionnaire on the basis of earlier studies using an essay method (Korpela, 1989, 1992) and five preliminary interviews with 8–12-year-old children. We did not include material from these preliminary interviews in our final data set. The questionnaire included open-ended questions concerning the places where the child usually spends time, the characteristics of the favorite place, the main reasons for going to the favorite place, feelings and situations before entering the place, the activities and thoughts within the place, change of mood in the place, the frequency of visitation, the amount of time spent there on each visit, and a question about whether the child usually goes to the favorite place alone or with friends. We began each theme of the interview (e.g. main reasons for going to a place) with an open-ended question and concluded with closed-ended questions.

Ten of the closed-ended questions concerned restoration and self-regulation. The children answered using 5-point scales with images of faces that represented levels of agreement (☺) and disagreement (☹) (Kunin, 1955). Scores on the items ranged from 1 (for total agreement) to 5 (for total disagreement). Factor analysis of these items (principal axis factoring with varimax rotation) produced two scales of interest, after exclusion of items with cross-loadings greater than |0.40|. One scale, Taxing Prior Situation, represents a need for emotion-regulation, and includes the items 'going to the favorite place after setbacks and disappointments' and 'going to the favorite place when you feel lonely and down.' Rather than taking the mean item response as the score for each child, we assigned scores according to the pattern of response on the two items, as follows: agreement on both items, or agreement on one and

neutral on one = 'Agree'; neutral on both = 'Neutral'; neutral on one and disagree on one, or disagree on both items = 'Disagree'. In this way we avoided interpretive problems (e.g. does a score of 3 represent two neutral responses or the inconsistent combination of total agreement on 1 item and total disagreement on the other); however, it came at the cost of statistical power, as some children did not receive scores due to inconsistent responses. There were five such children from each age groups; seven were girls and three were boys. With these children excluded, Chronbach's $\alpha=0.88$ for the Taxing Prior Situation scale.

The second scale, Restoration/Relaxation Need, speaks to the child's needs for cognitive restoration and relaxation as a reason for going to the favorite place. This scale included three items: 'you can pour out and forget troubles', 'you can reflect on personal matters and clear your mind', and 'you can be free and relaxed there'. We again assigned scores according to the pattern of response on the items, as follows: agreement on all three items, or agreement on two and neutral on one = 'Agree'; agreement on one and neutral on two, or all three neutral, or neutral on two and disagreement on one = 'Neutral'; neutral on one and disagreement on two, or disagreement on all three items = 'Disagree'. Ten 8–9-year-olds and five 12–13-year-olds gave inconsistent responses. Eight were girls and seven were boys. With these children excluded, Chronbach's $\alpha = 0.82$ for the Restoration/Relaxation Need scale. The two scales were significantly correlated, $r(35) = 0.44$, $p < 0.01$.

We also constructed a measure of the license granted by the parents to the child for moving around the neighborhood independently *by foot* during free time. This Mobility scale consisted of the following five items, to which the parents answered either 'yes' or 'no': licenses to (1) visit friends or relatives, (2) go to a kiosk, (3) go to a store, (4) visit a playground or sportsfield, and (5) to cross roads independently, that is, alone. Factor analysis (with principal axis factoring) of these items yielded a one factor solution which explained 46% of the variance. The internal consistency (Kuder–Richardson 20) of the scale was 0.77.

Aside from questions about the residence and household, the questions posed to parents concerned the child's place preferences, the child's independent movement by foot and with bicycle during daytime and dark hours, the child's use of public transportation, the child's use of freetime in and outside the home, and the parents' concerns about the child's independent mobility.

Classification of places

All categories of favorite places were derived with reference to earlier studies (Korpela & Hartig, 1996; Korpela *et al.*, 2001). A given favorite place was classified as *natural* if the reference was to a place dominated by vegetation and without predominant built features, such as a park or forest. Summer cottages were included in this category when the description emphasized the surrounding forest or the presence of a lake or the sea in the vicinity. A given favorite place was classified as *residential* if the reference was to the home yard, one's home or own room, or to a friend's home. *Sport settings* included playing grounds not dominated by vegetation, track and field settings, basketball courts, riding houses, and swimming halls. *Commercial or retail settings* were shops or a billiard hall. *Community service settings* included libraries. Coding was completed by the author (K.K.) and a research assistant. For the favorite places, $\kappa = 0.88$ ($n = 55$). We combined retail settings and community service settings for statistical analyses, as few children identified places within these categories.

Results

Favorite places

All of the children in our sample reported having a favorite place. Of the favorite places they identified, sport settings as well as residential settings appeared to be overrepresented and natural and community service settings (including retail settings) underrepresented (see Table 1). However, these tendencies were not statistically significant ($\chi^2 = 4.6$; $df = 3$; $n = 55$; $p > 0.20$). Thus, in contrast to previous findings with adolescents and young adults, natural settings did not predominate among these children's favorite places.

We found no statistically significant association between age and the type of the favorite place

TABLE 1
Frequency of type of favorite place by age group ($n = 55$)

	Sport settings	Residential settings	Natural settings	Community service and retail settings
8–9 years	7	10	7	4
12–13 years	12	6	4	5
Total	19	16	11	9

($\chi^2 = 3.2$; $df = 3$; $n = 55$; $p > 0.35$; Cramer's $\phi = 0.24$; see Table 1). However, the results do suggest that some children trade residential favorite places for sport settings as they become older. Exploring this possibility, when we limit the test to sport and residential settings alone, we find that the tendency is not statistically significant ($\chi^2 = 2.3$; $df = 1$; $n = 35$; $p > 0.12$; $\phi = 0.26$).

Although the girls tended to select natural settings as their favorite places more often than boys, we found no statistically significant association between gender and the type of the favorite place ($\chi^2 = 2.7$; $df = 3$; $n = 55$; $p > 0.43$; Cramer's $\phi = 0.22$; see Table 2).

The parents' reports about their children's favorite places diverge from those of their children in some interesting respects. Ninety-three percent (50 out of 54) of the children mentioned that their parents knew the location of their favorite place and the remainder indicated that their parents did not know of their favorite place. The same percentages (i.e. 93% knew, 7% did not) held in each of the two age groups. Although somewhat fewer girls (89%) than boys (96%) reported that their parents knew the location of their favorite place, this difference was not statistically significant (Fisher's exact test, $p > 0.61$, $n = 54$, $\phi = 0.13$).

Ninety-four percent (51 out of 54) of the children said they had permission to go to the favorite place. Three (11%) 8–9-year-old girls did not report having this permission. The age and gender groups did not differ significantly with respect to having vs not having permission (for both, Fisher's exact test, $p > 0.23$, $n = 54$, $\phi = 0.23$). In contrast to what we should expect from the children's reports, 16% of the parents (9 out of 55) could not identify a favorite place where their child spend time during the week. The other 84% of the parents identified the favorite place of their child (46 out of 55); however, the parent(s) and child mentioned the same place in only 46% of the possible instances (21 out of 46). Still, 64% of the favorite places incorrectly identified by parents (16 child–parent pairs out of 25) were

among the places in which their children said they usually spent time. In all, then, 67% of the parents (37 child–parent pairs out of 55) identified a place where the child reported that she or he was actually spending time.

Emotion-regulation and restoration needs

Children visited their favorite place four times a week on average, spending 2.5 hours per visit on average. Boys reported visiting their favorite place more often than girls ($M = 4.9$, $S.D. = 4.9$ vs $M = 2.6$, $S.D. = 1.9$, respectively), $t(32.8) = 2.3$, $p < 0.04$.

In open-ended responses about the most important reasons for visiting the favorite place 24 of the children mentioned activities (opportunities for playing, games, activities, or having fun), 14 mentioned social reasons (meeting friends), 5 mentioned emotional and cognitive reasons (peacefulness, familiarity, learning), and 3 mentioned certain individual reasons (e.g. a familiar horse there). We classified reasons that did not make some form of positive endorsement of the place (e.g. located nearby, nothing else to do) as "other"; these reasons were mentioned by six children. Activities and social reasons were overrepresented among the reasons for visiting the favorite place ($\chi^2 = 29.0$, $df = 4$, $n = 52$, $p < 0.001$). The inter-rater agreement in coding the most important reasons for visiting the favorite place was $\kappa = 0.83$ ($n = 52$).

To see whether the children made use of their favorite places for restoration and emotion-regulation, we formed three groups on the basis of their scores on the Taxing Prior Situation and Restoration/Relaxation Need scales. As described earlier, we categorized the children according to whether their responses to the given scale items showed agreement, neutrality, or disagreement.

In contrast to the notion that the favorite places serve emotion-regulation, only 33% of the total sample (40% of those children giving consistent answers to the scale items) agreed that they went to the favorite place after emotionally and cognitively taxing situations (setbacks, disappointments, and feeling down) (see Table 3). We did not find statistically significant age or gender differences in analyses in which responses categorized as neutral or disagree were combined in one category, not agree ($\chi^2 = 0.53$, $df = 1$, $n = 45$, $p > 0.46$, $\phi = 0.11$, for both). Of those who answered the scale items in a consistent fashion ($n = 45$), 35% percent of 8–9-year-olds and 46% of 12–13-year-olds showed agreement. Among boys, 35% showed agreement. Among

TABLE 2.
Frequency of type of favorite place by gender (n = 55)

	Sport settings	Residential settings	Natural settings	Community service and retail settings
Girl	8	8	8	5
Boy	11	8	3	4
Total	19	16	11	9

TABLE 3.

Number of children reporting an emotionally and cognitively taxing situation and/or a need for cognitive restoration and relaxation as reasons for going to a favorite place

	Agree	Neutral	Disagree	Total
Emotionally and cognitively taxing prior situation	18	2	25	45
Need for cognitive restoration and relaxation	30	6	4	40

girls, 46% did so. Thus, it appears that for some but certainly not all of the children the favorite places serve a conscious emotion-regulation strategy in response to challenging events.

In a seeming paradox, however, the children provide stronger endorsement of the cognitive restoration and relaxation view, as reflected in their responses to the Restoration/Relaxation Need scale (see Table 3). Fifty-five percent of all the children (75% of children giving consistent answers to the scale items) agreed that a desire to pour out and forget troubles, and feel free and relaxed were reasons for going to the favorite place. Of all the children, 15 (27%) had indicated that they went to their favorite places after emotionally and cognitively taxing situations. Thus, we can describe a partial correspondence between precipitating prior events and use of the favorite place for restoration.

We did not find statistically significant age or gender differences in the use of the favorite place for restoration and relaxation in analyses in which responses categorized as neutral or disagree were combined in one category, not agree ($\chi^2 = 1.2$, $df = 1$, $n = 40$, $p > 0.27$, $\phi = 0.17$; $\chi^2 = 0.03$, $df = 1$, $n = 40$, $p > 0.85$, $\phi = 0.03$, respectively). The tendency was for older children (82% of those giving consistent answers) to agree more frequently than younger children (67% of those giving consistent answers) on the use of the favorite place for restoration and relaxation. Both genders agreed with similar frequency (76% of girls and 74% of boys).

Finally, we tested whether children associate cognitive restoration and relaxation with natural settings in particular. To do this, we compared children who identified a natural favorite place with children who identified other than a natural favorite place. Although the children who identified a natural favorite place tended to agree with the need for cognitive restoration and relaxation as a reason to visit the place slightly more often than children selecting other places (78% and 74%, respectively),

we found no appreciable association with the Taxing Prior Situation and Restoration/Relaxation Need reasons for going to the favorite place in an analysis where responses to the scales categorized as neutral or disagree were combined in one category, not agree ($\chi^2 = 0.03$, $df = 1$, $n = 45$, $p > 0.87$, $\phi = 0.02$; $\chi^2 = 0.05$, $df = 1$, $n = 40$, $p > 0.82$, $\phi = 0.04$, respectively).

Solo and social use of favorite places

Twelve–13-year-olds were more likely to visit their favorite places with friends whereas 8–9-year-olds were more likely to visit the place alone ($\chi^2 = 4.3$, $df = 1$, $n = 45$, $p < 0.04$, $\phi = 0.31$; see Figure 4). Some of the children visited their favorite place with adults rather than like-aged peers. If we include adult companions in the analysis for social vs solo use of the place, the age effect remains ($\chi^2 = 3.9$, $df = 1$, $n = 52$, $p < 0.05$, $\phi = 0.27$). We found no statistically significant gender difference in social versus solo use of the place ($\chi^2 = 0.10$, $df = 1$, $n = 45$, $p > 0.74$, $\phi = 0.05$). Eighty percent of girls and 76% of boys reported visiting the favorite place with friends.

As to how the use of favorite places for private or social purposes might correspond to their use for emotion-regulation and restoration, we found that

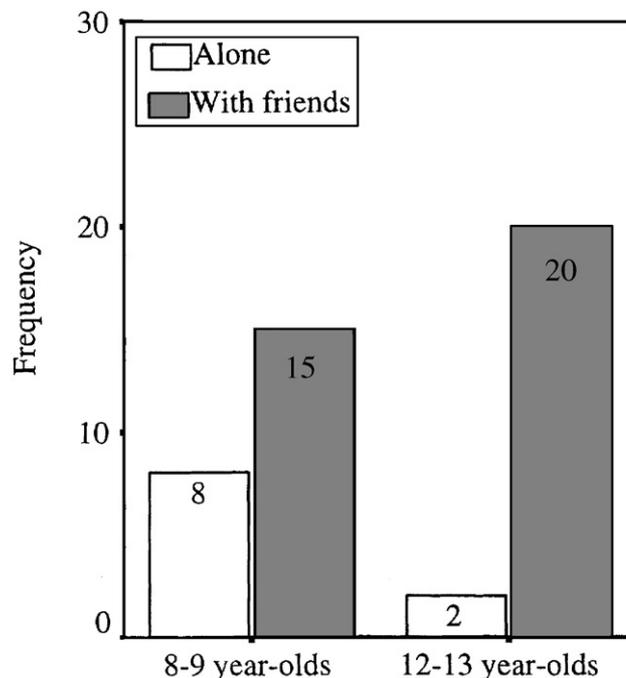


FIGURE 4. Company in the favorite place by age group ($n = 45$).

81% of the children who consistently agreed with the Restoration/Relaxation Need items went to the favorite place with friends (vs 75% of those not agreeing) (Fisher's exact test, $p > 0.99$, $n = 34$, $\phi = 0.06$) whereas 79% of those children who consistently agreed with the Taxing Prior Situation items went to the favorite place with friends (vs. 77% of those not agreeing) (Fisher's exact test, $p > 0.99$, $n = 36$, $\phi = 0.02$).

Place preferences and parental restrictions

Children's scores on the Mobility scale revealed that the children were generally very free to move around independently on foot. Eighty percent of the children scored maximally on the Mobility scale. The older children had more license to move around than the younger ones ($M = 4.9$, S.D. = 0.27 and $M = 4.4$, S.D. = 1.1, respectively), boys somewhat more than girls ($M = 4.8$, S.D. = 0.51 and $M = 4.6$, S.D. = 0.98, respectively) and children living in Tampere somewhat more than children in Helsinki ($M = 4.9$, S.D. = 0.35 and $M = 4.5$, S.D. = 1.2, respectively). Only the age difference was statistically significant, however; $t(30.1) = 2.3$, $p < 0.04$.

To test whether more or less license to move around was related to the selection of favorite places, we formed two groups of children on the basis of children's scores on the Mobility scale. We created a classification with restricted ($n = 11$, scores 0–4 in the Mobility scale) vs unrestricted ($n = 44$, score 5) mobility licenses. We did not find a statistically significant association between place preferences and the amount of parental restrictions ($\chi^2 = 1.7$; $df = 3$; $n = 55$; $p > 0.63$; Cramer's $\phi = 0.18$). Restricted and unrestricted groups did not differ significantly in the distance of the favorite place from home, $t(47) = 0.47$; $p > 0.63$; the average distance from the favorite place to home in the whole sample was 575 m (we excluded six favorite places that stood outside the range of the child's daily independent mobility by foot from 10 to 470 kms from the home).

Discussion

All of the children in our sample could identify a favorite place for us. This contrasts with the findings of Corbishley (1995), but it accords with several earlier findings (Hart, 1979; Schiavo, 1988; Korpela, 1989; Sommer, 1990; Chawla, 1992; Spencer & Woolley, 2000) and may well reflect the fact that

children in our sample were quite free to move independently through the city area outside their homes.

In contrast to previous findings with adolescents and young adults, neither natural nor residential settings predominated among the children's favorite places in this study. The children preferred to a roughly similar degree all four of the main types of settings — sport, residential, natural and community service/retail. These types of places are familiar from several earlier studies with children and adolescents (Schiavo, 1988; Sommer, 1990; Chawla, 1992; Korpela, 1992; Lieberg, 1994; Owens, 1994).

We did not find significant associations between age or gender and the type of the favorite place. Accepting them as face value, these results accord with studies that have shown no age differences between the ages of 8 and 13 (Schiavo, 1988; Malinowski & Thurber, 1996). We deliberately selected our research settings to offer a variety of natural, urban, sport, and retail/commercial settings. Thus, the lack of age (and gender) differences cannot be explained by homogeneous research settings — at least with respect to settings outside of the residence itself. That all of the children lived in apartments may limit the generalizability of findings concerning favorite places within the residence vs those outside of the residence. However, this possibility, like the possibility of age and gender differences in place preferences, deserves further study, and preferably with larger samples than ours.

When we consider the most frequently mentioned favorite places, the fact that activities and friends were spontaneously mentioned most frequently as reasons for going to the favorite place, and that most children visited their favorite place four times a week (spending two and a half hours per visit), we get a picture of 'normal', active, and peer-oriented Finnish children. Beneath this surface, however, we found that 55% of all the children (75% of children giving consistent answers to the scale items) reported a desire to pour out troubles, reflect on personal matters, to clear one's mind, and feel free and relaxed in the favorite place. In contrast to previous studies with adults, these restorative needs were not significantly associated with the choice of a natural setting as a favorite place. Neither were they associated with age or gender.

Use of the favorite place for restoration and emotion-regulation did not imply visiting the favorite place alone. However, 12–13-year-olds were more likely than the younger age group to visit the favorite place with friends. Speculatively, this suggests that pouring out troubles and clearing one's mind can take place in conversations with friends in a

place where the child can feel free away from parents' supervision. This result parallels the findings of the meaning of privacy in different ages. According to Wolfe's (1978) findings privacy as an opportunity to think and reflect increases with age from the age of 4–17. At the same time, children around age 13 begin to mention the choice of being alone or with others in a private place.

In contrast to the agreement with the structured questions about cognitive restoration and relaxation, only one-third of all the children (40% of those children giving consistent answers to the scale items) reported visiting the favorite place after setbacks, disappointments, and feeling down and lonely. We found no age or gender differences in such resort to favorite places for emotion-regulation. Thus, it seems that the favorite places indeed serve a conscious emotion-regulation strategy for some of the children. We speculate that the focus of the questions on discrete, identifiable challenging events as compared to day-to-day restoration needs account for the seeming mismatch between responses to the sets of questions. In any case, the results concerning both scales corroborate earlier observations that children as early as age 8 or 9 may use favorite place for restoration and emotion-regulation (Korpela, 1989; Spencer & Woolley, 2000).

In all, the answers to the structured interview questions deepen the picture of reasons for visiting the favorite place in comparison to open-ended answers, although it must be noted that emotional and cognitive reasons were also spontaneously mentioned by the children. Although the scales were correlated, with 19% of variance in common, the children were differentially sensitive to the two scales. Thus, we cannot conclude that the answers to the structured questions are merely due to social desirability or yes-saying effects which would affect similarly the results with both scales. Rather, it seems that children were able to reflect on preceding situations, personal emotions and experiences in closed-ended questions, but that they required more introspection than they produced spontaneously when we asked with an open-ended question why the place was favorite for them. On average, the answers were from seven to eight words like 'it is fun there with my best friends'. Thus, in future studies of children's self-regulation and restoration in favorite places, the methodology of using both structured and open-ended self-reports seems fruitful.

We did not find significant associations between the mobility license given by the parents and the type of the favorite place or its distance from home. Thus, it seems that the amount of license does not

necessarily push favorite places further away from home in an urban setting where different types of places are available near the home. However, the narrowly restricted range of variation in mobility license renders this conclusion highly tentative. Nonetheless, the older children in our sample did have more license than the younger children; that is, they were more free to move around the city area independently by foot. This result accords with earlier findings and presupposes that children are living in the same residential area, and come from similar social and ethnic background (Nummenmaa *et al.*, 1970; Setälä, 1972; *cf.* Matthews & Limb, 1999). We found no statistically significant gender differences but the tendency was for boys to have more license than girls, as in several other studies (Hillman & Adams, 1992; Matthews & Limb, 1999; O'Brien *et al.*, 2000).

Place preference studies have shown that children often prefer places outside social demands and the control of the parents (*cf.* Moore, 1986). The present study partially supports this notion by showing that 16% of the parents could not identify their child's favorite place and 45% of the parents identified a different favorite place from the place identified by the child him/herself. However, two-thirds of the parents knew about their children's movements because the favorite places identified by the parent were among the places the child usually reported to spend time in. Thus, what a substantial proportion of the parents did not seem to know was the emotional significance of the places for their children.

In closing, we found that more than one-quarter (27%) of all the children in our sample, aged from 8 to 13, reported that they went to their favorite place both after emotionally challenging events and for cognitive restoration and relaxation more generally. This evidence of an environmental self-regulation strategy in connection with favorite places, although seen with a minority of the children in this study, speaks to the value of further research on the development of environmental self-regulation strategies. One salient question is whether these strategies become more distinct as social and educational demands on the child increase.

Acknowledgements

Conduct of the study was supported by a grant from the University of Tampere (K.K.). We are grateful to Sari Lainio and Niko Lipsanen for conducting the

interviews and Anu Vähäsöini for data preparation and classifications. Direct correspondence to Kalevi Korpela at the Department of Psychology, FIN-33014 University of Tampere, Finland. E-mail: kalevi.korpela@uta.fi.

References

- Bixler, R. D., Carlisle, C. L., Hammitt, W. E. & Floyd, M. F. (1994). Observed fears and discomforts among urban students on field trips to wildland areas. *Journal of Environmental Education*, **26**, 24–33.
- Bixler, R. D. & Floyd, M. F. (1997). Nature is scary, disgusting, and uncomfortable. *Environment & Behavior*, **29**, 443–467.
- Blakely, K. S. (1994). Parents' conceptions of social dangers to children in the urban environment. *Children's Environments*, **11**, 16–25.
- Chawla, L. (1992). Childhood place attachments. In I. Altman & S. M. Low (Eds), *Place Attachment*. New York: Plenum Press, pp. 63–86.
- Cooper-Marcus, C. (1978). Remembrance of landscapes past. *Landscape*, **22**, 35–43.
- Cooper-Marcus, C. (1979). *Environmental Autobiography*. Working Paper 301. Berkeley: University of California, Institute of Urban & Regional Development.
- Corbishley, P. (1995). A parish listens to its children. *Children's Environments*, **12**, 414–426.
- Epstein, S. (1991). Cognitive-experiential self-theory: an integrative theory of personality. In R. C. Curtis (Ed), *The Relational Self: Theoretical Convergences in Psychoanalysis and Social Psychology*. New York: Guilford Press, pp 111–137.
- Harden, J. (2000). There's no place like home: the public/private distinction in children's theorizing of risk and safety. *Childhood*, **7**, 43–59.
- Harris, P. B., Brown, B. B. & Werner, C. M. (1996). Privacy regulation and place attachment: predicting attachments to a student family housing facility. *Journal of Environmental Psychology*, **16**, 287–301, doi:10.1006/jev.1996.0025.
- Hart, R. (1979). *Children's Experience of Place*. New York: Irvington.
- Hartig, T., Mang, M. & Evans, G. W. (1991). Restorative effects of natural environment experiences. *Environment & Behavior*, **23**, 3–26.
- Hester, R. (1979). A womb with a view: how spatial nostalgia affects the designer. *Landscape Architecture*, 475–482.
- Hillman, M. & Adams, J. (1992). Children's freedom and safety. *Children's Environments*, **9**, 10–22.
- Hillman, M., Adams, J. & Whitelegg, J. (1990). *One False Move ... A Study of Children's Independent Mobility*. London: Policy Studies Institute.
- Izard, C. E. & Kobak, R. R. (1991). Emotions system functioning and emotion regulation. In J. Garber & K. A. Dodge (Eds), *The Development of Emotion Regulation and Dysregulation*. Cambridge: Cambridge University Press, pp. 303–321.
- Kaplan, R. (2001). The nature of the view from home: psychological benefits. *Environment & Behavior*, **33**, 507–542.
- Kaplan, S. (1995). The restorative benefits of nature: toward an integrative framework. *Journal of Environmental Psychology*, **15**, 169–182.
- Korpela, K. (1989). Place-identity as a product of environmental self-regulation. *Journal of Environmental Psychology*, **9**, 241–256.
- Korpela, K. (1992). Adolescents' favourite places and environmental self-regulation. *Journal of Environmental Psychology*, **12**, 249–258.
- Korpela, K. & Hartig, T. (1996). Restorative qualities of favorite places. *Journal of Environmental Psychology*, **16**, 221–233, doi:10.1006/jev.1996.0018.
- Korpela, K., Hartig, T., Kaiser, F. & Fuhrer, U. (2001). Restorative experience and self-regulation in favorite places. *Environment & Behavior*, **33**, 572–589.
- Kunin, T. (1955). The construction of a new type of attitude measure. *Personnel Psychology*, **8**, 65–77.
- Kuo, F. E. & Sullivan, W. C. (2001). Aggression and violence in the inner city: impacts of environment via mental fatigue. *Environment & Behavior*, **33**, 543–571.
- Kyttä, M. (1997). Children's independent mobility in urban, small town, and rural environments. In R. Camstra (Ed), *Growing Up in a Changing Urban Landscape*. Assen: Van Gorcum, pp. 41–52.
- Ladd, F. C. (1977). Residential history: you can go home again. *Landscape*, **21**, 15–20.
- Laufer, R. & Wolfe, M. (1976). The interpersonal and environmental context of privacy invasion and response. In P. Korosec-Serfaty (Ed.), *Appropriation of Space*. Strasbourg: Institut Louis Pasteur, pp. 516–535.
- Lieberg, M. (1994). Appropriating the city: teenagers' use of public space. In S. J. Neary, M. S. Symes, & F. E. Brown, (Eds), *The Urban Experience. A People-Environment Perspective*. London: E & FN Spon, pp. 321–333.
- Lukashok, A. K. & Lynch, K. (1956). Some childhood memories of the city. *Journal of the American Institute of Planners*, **22**, 142–152.
- Malinowski, J. C. & Thurber, C. A. (1996). Developmental shifts in the place preferences of boys aged 8–16 years. *Journal of Environmental Psychology*, **16**, 45–54, doi:10.1006/jev.1996.0004.
- Matthews, H. & Limb, M. (1999). Defining an agenda for the geography of children: review and prospect. *Progress in Human Geography*, **23**, 61–90.
- Matthews, H., Taylor, M., Sherwood, K., Tucker, F. & Limb, M. (2000). Growing-up in the countryside: children and the rural idyll. *Journal of Rural Studies*, **16**, 141–153.
- Moore, R. (1986). *Childhood's Domain: Play and Place in Child Development*. Berkeley, CA: MIG Communications.
- Newell, P. B. (1994). A systems model of privacy. *Journal of Environmental Psychology*, **14**, 65–78.
- Newell, P. B. (1997). A cross-cultural examination of favorite places. *Environment & Behavior*, **29**, 495–514.
- Nummenmaa, T., Syvänen, M. & Weckroth, J. (1970). *Lapsen leikki- ja liikkumatila kaupunkiympäristössä* [The territorial range of children in an urban environment]. Reports from the Department of Psychology, 50. University of Tampere.
- O'Brien, M., Jones, D., Sloan, D. & Rustin, M. (2000). Children's independent spatial mobility in the urban public realm. *Childhood*, **7**, 257–277.

- Owens, P. E. (1988). Natural landscapes, gathering places, and prospect refuges: characteristics of outdoor places valued by teens. *Children's Environmental Quarterly*, *5*, 17–24.
- Owens, P. E. (1994). Teen places in Sunshine, Australia: then and now. *Children's Environments*, *11*, 292–299.
- Pihlström, N. (1992). *Oppilaiden mielipaikkakokemukset psykkinen itsesäätelyn ilmentäjänä* [Children's favorite place experiences and self-regulation]. Unpublished Master's Thesis. University of Helsinki, Finland.
- Schiavo, R. S. (1988). Age differences in assessment and use of a suburban neighborhood among children and adolescents. *Children's Environments Quarterly*, *5*, 4–9.
- Sebba, R. (1991). The landscapes of childhood: the reflection of childhood's environment in adult memories and in children's attitudes. *Environment & Behavior*, *23*, 395–422.
- Setälä, M.-L. (1972). *Leikki- ja elintilan laajeneminen 10–12 vuoden iässä* [The expansion of territorial range between ages 10 to 12]. Reports from the Department of Psychology, 58. University of Tampere.
- Silbereisen, R. & Noack, P. (1988). Adolescence and environment. In D. Canter, M. Krampen, & D. Stea (Eds.), *Ethnoscapas: Environmental Policy, Assessment and Communication*, Vol. 2. Aldershot: Avebury, pp. 19–34.
- Silbereisen, R., Noack, P. & Eyferth, K. (1986). Place for development: adolescents, leisure settings, and developmental tasks. In R. K. Silbereisen, K. Eyferth & G. Rudinger (Eds.), *Development as Action in Context: Problem Behavior and Normal Youth Development*. Berlin: Springer-Verlag, pp. 87–107.
- Smith, F. & Barker, J. (2000). Contested spaces: children's experiences of out of school care in England and Wales. *Childhood*, *7*, 315–333.
- Sobel, D. (1990). A place in the world: adults' memories of childhood special places. *Children's Environments Quarterly*, *7*, 5–12.
- Sommer, B. (1990). Favorite places of Estonian adolescents. *Children's Environmental Quarterly*, *7*, 32–36.
- Spencer, C. & Woolley, H. (2000). Children and the city: a summary of recent environmental psychology research. *Child: Care, Health, and Development*, *26*, 181–198.
- Thurber, C. A. & Malinowski, J. C. (1999). Environmental correlates of negative emotions in children. *Environment & Behavior*, *31*, 487–513.
- Valentine, G. (1995). Stranger-danger: the impact of parental fears on children's use of space. Paper presented at the *International Conference: Building Identities, Gender Perspectives on Children and Urban Space*, Amsterdam, The Netherlands, 11–13 April 1995.
- Valentine, G. (1997). Gender, children and cultures of parenting. In R. Camstra (Ed.), *Growing Up in a Changing Urban Landscape*. Assen: Van Gorcum, pp. 53–78.
- Wohlwill, J. F. & Heft, H. (1987). The physical environment and the development of the child. In D. Stokols & I. Altman (Eds.), *Handbook of Environmental Psychology*, Vol. 1. New York: John Wiley, pp. 281–328.
- Wolfe, M. (1978). Childhood and privacy. In I. Altman & J. Wohlwill (Eds.), *Children and the Environment*. New York: Plenum Press, pp. 175–222.
- Wyman, M. (1985). Nature experience and outdoor recreation planning. *Leisure Studies*, *4*, 175–188.