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Access to ecosystem benefits: more than proximity

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1 **Title: Access to ecosystem benefits: more than proximity**

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13 **Key words:** ecosystem benefits, environmental spaces, psychosocial access mechanisms,

14 qualitative approach, socio-economic disadvantage, ~~Cornwall~~United Kingdom

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20 **Access to ecosystem benefits: more than proximity**

21 **Abstract**

22 This article responds to a gap in existing research on access to environmental spaces in rural

23 and coastal areas, especially of less advantaged members of society who could potentially

24 benefit the most from exposure to such environments but face a whole host of constraints.

25 We build on existing theorisations of access to natural resources and ecosystem services in

26 the development literature and integrate insights from the sociology of access to

27 environmental spaces, health geography and environmental psychology in industrialised

28 contexts. We employ semi-structured interviews and photo elicitation with socio-

29 economically disadvantaged respondents in Cornwall, UK. Participants' accounts reveal four

30 mechanisms that mediate access to ecosystem benefits: rights-based, physical, structural and

31 relational, and psychosocial, and we thus extend Ribot and Peluso's access framework. We

32 conclude that socio-economic disadvantage mediates access to environmental spaces, in

33 particular through psychosocial mechanisms, and highlight the interlinked and

34 complementary nature of the four types of access mechanisms.

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Introduction

Research on access to environmental spaces and ecosystem services can be located within two broad bodies of literature according to geographic focus: (i) the development literature of livelihoods and resource use in the global south, and within the (ii) health geography and environmental psychology of interactions with nature in industrialised countries. A number of limitations in these bodies of literature around how they conceptualise, asses and evaluate access, have attracted criticism and instigated calls for improved social sensitivity in access analyses (Daw et al. 2011; Dawson and Martin 2015; Morris et al. 2011).

Existing conceptualizations of the ecosystem services and wellbeing relationship in the mainstream ecosystem services literature commonly take an aggregated perspective, assuming that the overall availability of ecosystem services leads to uniform wellbeing outcomes for society (MEA 2005). While some advances have been made towards better understanding access to natural resources by different stakeholders, evident in a number of conceptual and empirical analyses (Leach, Mearns, and Scoones 1999; Ribot and Peluso 2003; Ribot 1998; Schlager and Ostrom 1992; Sikor, He, and Lestrelin 2017), aggregate approaches continue to be applied. These, however, do not sufficiently consider social difference, and fail to recognize access as a prerequisite of the ability to experience wellbeing from ecosystem services. A focus on the aggregate availability of ecosystem services overlooks winners and losers in terms of who derives benefits from which ecosystem services, obscures mechanisms of access that determine who benefits, and fails to take into account individual circumstances that influence people's ability to translate services into wellbeing (Dawson and Martin 2015; Daw et al. 2011).

Research on access to the environment in industrialised settings evolved around the recognition that human-nature interactions contribute to improved physical and mental health (Hartig, Mang, and Evans 1991; Hartig et al. 2014; Mitchell and Popham 2008). In this body of research, the beneficial effect of nature on human health and wellbeing is often inferred by taking a spatial approach to interactions with environmental spaces (e.g. Mitchell and Popham 2008; MacIntyre, MacDonald, and Ellaway 2008; Jones, Hillsdon, and Coombes 2009; Wheeler et al. 2012), where distance is used as a proxy indicator of access. While some of these studies make strides towards including variables that capture socio-economic gradients (Mitchell and Popham 2008; Shanahan et al. 2014; Wheeler et al. 2012) and ethnic minority groups (Morgan Hughey et al. 2016), they are constrained by a number of limitations characteristic of population level survey data. For instance, large scale surveys may overlook the most marginalised groups of the population who are least likely to access and benefit from the environment (e.g. those with no fixed abode), and do not capture more qualitative aspects of the environment and wellbeing relationship, such as people's values and perceptions about the environment (Jones, Hillsdon, and Coombes 2009; MacIntyre, MacDonald, and Ellaway 2008), which are instrumental in shaping *how* or *why* people engage (or not) with environmental spaces. Moreover, a spatial focus on access can lead to the incorrect assumption in policy and planning circles that creating more green spaces will invariably facilitate access to and engagement with these.

However, it has become increasingly recognized that reducing distance to and/or making a greater number of green spaces available is not a panacea for improved access (Morris et al. 2011), and as an alternative to proximity-based access analyses, a group of geographers propose a cultural politics theoretical lens combined with qualitative inquiry (Byrne and

89　Wolch 2009; Byrne 2012). This explores the links between socio-ecological exclusion and

90　underlying power relations embedded in the history of landscapes, land-use systems and

91　'ideologies of nature' (Castree 1995) that shape people's perceptions, meanings and attitudes

92　towards environmental spaces. Their work is inspired by earlier research on the role of

93　discourses of race and place in shaping access to the English countryside, which is branded a

94　'white landscape' where people of colour feel 'out of place' and unwelcome (Agyeman 1990).

95　Indeed, empirical research on access to places has demonstrated the socially constructed

96　nature of (not only environmental) spaces and highlighted a suite of access barriers relating

97　to perceptions of safety, hostility and a lack of belonging among minority groups (Spicer 2008;

98　Tolia-Kelly 2006; Byrne 2012). Additionally, a number of authors studying forest access in the

99　UK, developed a classification of barriers to accessing woodlands (Weldon, Bailey, and O'Brien

100　2007; O'Brien and Tabbush 2005; Morris et al. 2011). They suggest that alongside physical

101　and economic factors, people's emotions, personalities and personal circumstances also play

102　a role in shaping engagement with forests. As such, these studies begin to discuss the role of

103　structural factors in shaping some of the less obvious mechanisms of access, related to the

104　social and cultural histories of people and places.

105

106　Despite the growing body of access literature, relatively little research examines access to the

107　environment and ecosystem services among disadvantaged people in rural or coastal settings

108　in industrialised contexts (e.g. Wheeler et al. 2012), where green or 'blue' spaces are

109　abundant, but the dynamics of access might diverge from urban settings. While rural lifestyles

110　have commonly been portrayed as 'problem-free', happy and healthy, a large body of

111　research emerged around contesting discourses of the 'rural idyll', and highlighted some of

112　the challenges present in rural areas, such as fewer employment opportunities, lower

113   incomes, gaps in service provision, and experiences of isolation (e.g. Cloke et al. 1995; Cloke,

114   Milbourne, and Thomas 1997; Farrington and Farrington 2005; Shucksmith et al. 2000). These

115   constraints are the product of structural factors characteristic of rural areas and they are likely

116   to influence people's access to environmental spaces by creating a system of dispositions, or

117   *habitus* (Bordieu 1977). *Habitus* is the vehicle through which the objective material structures

118   of a given context become internalised, often sub-consciously, in the subjective tastes,

119   preferences and embodied experiences of people belonging to that context (Bourdieu 1977;

120   Holt 2008). Thus, *habitus* can be a potent vehicle for reproducing existing disadvantage (Holt

121   2008), as people's actions, shaped by dispositions, perpetuate the very structures that

122   produce disadvantage in the first place. Yet there is an evident shortage, particularly, in

123   qualitative work examining the role of rural structures in shaping access to coastal and other

124   environmental spaces, especially of less advantaged members of society, who could

125   potentially benefit the most from exposure to such environments (Wheeler et al. 2012), but

126   face a whole host of constraints.

127

128   To address this limitation, this paper seeks to integrate perspectives from the development

129   literature into conceptualizations of access to the environment within industrialized country

130   contexts. We ~~evaluate~~ consider two frameworks of access to natural resources from the

131   development literature: Leach and colleagues' 'environmental entitlements' (1999) and Ribot

132   and Peluso's 'theory of access' (2003), as these contribute to a holistic lens through which to

133   explore access to ecosystem services. We then present a semi-inductive exploratory analysis

134   guided by Ribot and Peluso's theory of access to examine how people living with socio-

135   economic constraints access environmental spaces in Cornwall. Our findings point to intimate

136   links between structural factors and access mechanisms and expand the scope of current

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137 access frameworks by explicitly highlighting the role of psychosocial mechanisms in mediating

138 access.

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140 2. **Theorizing access to ecosystem services**

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142 The need for socially differentiated analyses of access to resources was first articulated by

143 Sen (1976; 1977; 1981) in his work on poverty and famines, which contests the then dominant

144 food availability decline (FAD) hypothesis and proposes 'entitlements failure' as an alternative

145 explanation for famine: 'starvation is a matter of some people not *having* enough food to eat,

146 and not a matter of there *being* not enough food' (Sen 1981: 434), suggesting that famine is

147 caused by maldistribution, rather than reduction in aggregate availability of food. According

148 to Sen, people gain access to food by means of their endowments (e.g. labour, assets, and

149 other commodities) and exchange entitlement, which involves trading endowments for food

150 (e.g. selling labour, selling off assets). Socially differentiated access analyses have since been

151 adopted by development scholars for a better understanding of who can benefit from

152 environmental resources (Leach et al. 1999; Ribot and Peluso 2003).

153

154 Building on Sen's work, Leach and colleagues propose an alternative to the focus on aggregate

155 availability of ecosystem services and introduce 'environmental entitlements' as a concept

156 for exploring social differentiation in access to environmental goods and services. Leach et al.

157 focus on the institutions governing access to environmental services (such as statutory

158 legislation, customary rights, or informal institutions). While they recognize that power

159 relations are reflected in institutional dynamics, they define environmental entitlements as

160 'alternative sets of utilities derived from environmental goods and services over which social

161 actors have legitimate effective command' (Leach et al. 1999: 233). 'Legitimate effective

162 command', however, suggests that people have already established access to the

163 environment from which goods and services are derived.

164

165 In addition to Leach et al.'s institutional focus, Ribot and Peluso's theory of access highlights

166 the importance of 'bundles of power' alongside 'bundles of rights' in mediating people's

167 *ability* to benefit from resources (Ribot and Peluso 2003). Bundles of power are shaped by the

168 social, political-economic and cultural contexts within which access is sought. Power relations

169 act in parallel with rights-based mechanisms of access (which include legal and illegal means)

170 and comprise several heuristic categories: access to markets, labour opportunities,

171 knowledge, capital, technology, authority, as well as identity and social relationships (Ribot

172 and Peluso 2003) (Table 1). While Leach et al. also recognize that power asymmetries at the

173 household and community level influence people's ability to mobilize their endowments to

174 gain entitlements, they do not fully develop this idea within their framework. While both

175 frameworks examine access to benefits from environmental resources, Ribot and Peluso's

176 (2003) theory of access presents a more comprehensive framework that explicitly accounts

177 for the interaction between people's context and their ability to benefit from environmental

178 resources by differentiating between rights-based and structural-relational mechanisms of

179 access (Table 1). We note that the framework was developed for access analyses in

180 developing contexts, where the mechanisms of gaining access to environmental spaces may

181 not fully resonate with those in industrialised countries. Therefore, while our analysis is

182 guided by Ribot and Peluso's (2003) theory of access, we remain sensitive to insights emerging

183 from the experiences of our participants.

184

8

185 **Table 1** A comparison of environmental entitlements and theory of access approaches Key concepts theories of access Sources Leach et al 1999; Ribot and Peluso 2003

3. Methods

3.1 Research design

Our access analysis formed part of a larger study exploring the contribution of ecosystem services to wellbeing in Cornwall. Participants were recruited through a gatekeeper organization, Cornwall Neighbourhoods for Change (CN4C), a local social enterprise working with residents of disadvantaged neighbourhoods (CN4C 2018(www.cn4c.org.uk). Purposive sampling followed the principle of relevance for the research objective (Bryman 2008), with an emphasis on people's characteristics and experiences of a phenomenon (Guest, Bunce, and Johnson 2006; Starks and Brown Trinidad 2007), i.e. socio-economic disadvantage. Rather than aiming for a representative sample of the Cornish population, we wanted to explore in qualitative depth people's lived experiences of the environment-wellbeing nexus, including access to environmental spaces in the context of disadvantage. Our participants experienced various manifestations of disadvantage, including mental health issues (e.g. depression, anxiety) and shocks and stresses (e.g. eviction/homelessness, loss of livelihood), and sought help and support from CN4C. Our study included inland locations, in particular the Camborne/Redruth area, which has been identified as a pocket of deprivation (Cornwall Council 2015a), and a coastal location. Trust building with potential participants took place gradually (Castleden, Garvin, and First Nation 2008; Moreno-John et al. 2004) over four months (November 2013 – February 2014), when the first author became an active volunteer at CN4C. Ethical approval was obtained from the College of Life and Environmental Sciences of the [Removed for SNR blind review]University of Exeter. Note was taken of participants'

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209 social and cultural context to prevent harm to relationships and wellbeing. To protect

210 participants' identity and privacy, they are referred to using pseudonyms.

211

212 The study involved several research encounters over an 18-month period (Figure 1). We used

213 participatory and qualitative methods to collect contextually rich data to understand how

214 participants' experiences are shaped over time by the social, cultural, economic and

215 environmental context. As commonly experienced in qualitative and participatory research

216 (Castleden, Garvin, and First Nation 2008), participant retention was a key challenge due to

217 the time commitment required, and sometimes, the lack of stability in the lives of research

218 participants. From the initial sample of 25 focus group participants, eleven agreed to be

219 involved in subsequent activities, however, only eight people completed all stages of the

220 study, including the access analysis. This included four male and four female participants

221 whose ages ranged from 30 to 74. Two participants lived on the coast of Cornwall, whereas

222 the other six participants lived in towns and villages not adjacent to the coast. Three

223 participants have been unemployed for some time at the time of the research, two were

224 working part-time, two were retired, and one participant was self-employed. Most

225 participants were affected by multiple forms of socio-economic disadvantage. For example,

226 poor mental health and anxiety (n=3) were in some cases reported by participants who also

227 experienced some unexpected shock (e.g. loss of home or job) or a stressful life episode (n=4),

228 as well as a participant who was affected by a serious physical illness (n=1). Other forms of

229 socio-economic disadvantage affecting the day-to-day lives of our participants included social

230 isolation (n=4) and lone parenting (n=2).

231

232 **Figure 1.** Timeline of research activities: the research process consisted of multiple

233 encounters with the same participants over 18 months.

234

235 Access to environmental spaces was explored through photo elicitation (Collier 1957; Collier

236 and Collier 1986) and semi-structured interviews. Participants were presented photo cards

237 containing a collage of photographs taken by them during the photovoice encounter,

238 representing eleven environmental spaces. Participants were then asked to sort the photo

239 cards into three piles according to their use of the environmental spaces depicted on them

240 (use on a regular basis, use infrequently or rarely, do not use at all). Each pile was discussed

241 in turn, eliciting information about access to, motivations for use, and experiences of

242 environmental spaces. Interviews were audio recorded, transcribed and thematically

243 analysed. We employed a semi-inductive coding approach, thus some categories (e.g. rights-

244 based access) were derived from Ribot and Peluso's Theory of access, while others (e.g.

245 psychosocial access) emerged from the data through open coding (Ryan and Bernard 2003).

246

247 ~~*3.2 Case study*~~*Background* **and key concepts**

248

249 Our ~~case~~ study location, Cornwall UK, features an extensive coastline and several areas of

250 outstanding natural beauty. Over 90% of Cornwall's total land area is classified as green-space

251 with rich biodiversity and a number of important habitats (Bromley 2010). This is coupled with

11

252 a high incidence of socio-economic disadvantage, including several 'pockets of deprivation',

253 as measured by the Index of Multiple Deprivation (Cornwall Council 2015a). As a result,

254 Cornwall has qualified for development related financial support from the European Union

255 (Convergence Cornwall 2018). At the time of this research, the UK Happiness Index placed

256 Cornwall in a prominent second place for happiness, life satisfaction and the worthiness of

257 things people do in their everyday lives (ONS 2012). This paradoxical coincidence of economic

258 deprivation and relatively high subjective wellbeing could be explained by the positive impact

259 of exposure to the natural environment (MacKerron and Mourato 2013). A recent study on

260 the effect of coastal proximity on self-reported health in Cornwall indeed concludes that

261 disadvantaged communities experience greater benefits from coastal proximity (Wheeler et

262 al. 2012). However, aside from spatial proximity, it remains unclear whether and how

263 disadvantaged communities access such spaces, especially given that research has already

264 highlighted a number of barriers for such communities (Weldon, Bailey, and O'Brien 2007;

265 O'Brien and Tabbush 2005; Morris et al. 2011; Byrne 2012). To address this gap, our study

266 explores whether and how participants experiencing various types of socio-economic

267 disadvantage gain access to the environment.

268

269 We used the term environmental spaces for framing discussions with participants about

270 access to ecosystem services during interviews. Earlier research encounters elicited a range

271 of ecosystem benefits – the actual improvement of wellbeing (Daw et al. 2011) - derived from

272 interactions with the environment (Removed for SNR blind review 2016Szaboova 2016), thus

273 we consider access to environmental spaces to enable benefits from ecosystem services. Fish,

274 Church, and Winter (2016) define environmental spaces as the geographical settings, such as

275 places, localities, landscapes and seascapes, that foster people-nature interactions. As there

276 is no universal taxonomy of such spaces that can be applied across the board (Church et al.

277 2014; Fish, Church, and Winter 2016), we developed a contextually relevant list using data

278 from earlier photovoice and photo elicitation interviews with the same participants. We have

279 elicited eleven types of environmental spaces: home garden, woods, fields, public footpath,

280 coast path, park, sea, beach, harbour, and freshwater (river, pond, stream). Building on Ribot

281 and Peluso's (2003) definition, access is conceptualised as people's *ability* to benefit from

282 ecosystem services provided by environmental spaces.

283

284 4. **Accessing environmental spaces**

285 Our analysis yielded four categories of mechanisms that mediate participants' access to the

286 Cornish environment: rights-based access, physical mechanisms, structural and relational

287 mechanisms, and psychosocial mechanisms.

288

289 *4.1* **Rights-based access**

290 Following Sikor, He, and Lestrelin (2017), we identified two forms of rights-based access. First,

291 participants' *use rights*, which entail the use of direct and indirect benefits from

292 environmental spaces. Second, *control rights*, which are exercised by state and non-state

293 actors (e.g. government agencies, conservation or heritage trusts) or private land owners, and

294 include the right to grant use rights, and to regulate, monitor or constrain use (Sikor, He, and

295 Lestrelin 2017).

296

297 Cornwall has over 300 beaches, of which 86 are managed, leased or delivered services on by

298 Cornwall Council. The rest are owned privately by the National Trust, the Duchy of Cornwall,

13

299 Ministry of Defence, and private landowners (Cornwall Council 2015b). The South West Coast

300 Path is accessible under public rights of way (Countryside and Rights of Way Act 2000), and

301 extends over 491km along the scenic Cornish coast (Cornwall Council 2005). Some fields,

302 woodlands and beaches in Cornwall are privately owned, rendering some places that people

303 attach meaning or value to not accessible to the public. For example, Wendy reported regret

304 over losing access to Trevarno Woods due to a change in land tenure - now private property

305 and closed to the public. However, private land is not always clearly demarcated or physically

306 closed off, leading to uncertainty around use rights. This creates a psychological inhibition to

307 access, due to a fear of confrontation and feeling of wrong doing, as in David's case:

308   'I stepped into that field. […] The fellow that was cutting this hay in another adjacent

309   field and when he saw me in there…I could feel that I wasn't welcome in that field. […]

310   He was too far away to say anything, but I got the feeling that I was trespassing in a

311   way.'

312

313   Access to other environmental spaces, such as home gardens, was mediated by participants'

314 residential status - whether owned, rented, or Council accommodation. In some cases,

315 participants were housed by the Council to prevent homelessness, and as such did not have

316 the choice of desired amenities, such as a garden. For example, Wendy was left without

317 shelter with two young daughters due to no fault of her own:

318   '…he [ex-husband and father of children] managed to lose us our home, because he

319   didn't pay the mortgage, and I couldn't get work with a good enough pay at the time

320   because I had the children. ~~So~~So, the Council housed us…And then…I was offered the

321   flat here. First time I saw it, it was ~~grey~~grey, and it was dull. It was raining, and it was

322   November. And I looked at it from the outside and I just cried.'

323 Likewise, David had to take what was being offered by the Council following the passing of

324 his partner. While Wendy and David both value home gardens, their social accommodation

325 either does not have a garden or the garden is shared. Wendy's use of the shared garden is

326 minimal due to the problems she experienced over the years:

327 'Unfortunately, because we have a communal garden, I only really use it for washing,

328 because there is no way that we could do anything with this, because it would be all

329 wrecked by somebody else.'

330 This resonates with Ellaway, Macintyre, and Kearns' (2001) finding that the allocation of social

331 housing leads to the creation of mixed communities where residents' visions about standards

332 of living diverge, leading to social and environmental problems. The high turnover of residents

333 and subsequent low levels of cohesion and community feel within Wendy's estate hindered

334 her use of shared outdoor spaces. This finding indicates that in addition to social actors, use

335 rights are sometimes also constrained by underlying structural factors such as socio-economic

336 disadvantage.

337

338 *4.2 Physical mechanisms*

339

340 Physical mechanisms comprised all those factors that facilitated participants' ability to

341 physically access environmental places, and included transport and other forms of mobility,

342 personal characteristics, and geographic and environmental factors. Participants' narratives

343 indicated that access to transport becomes more salient with age, due to declining health and

344 fitness. Although public transport is available across Cornwall, participants typically expressed

345 dissatisfaction with the poor connections, infrequency of services, and expensive fares.

346 Charlie and Marie experienced regular frustrations over the inefficient delivery of this vital

347 service. Charlie felt that: 'the public transport is not as good as it could be in Cornwall, because

348 the trains and buses don't connect with each other…[I] have to spend hours hanging around

349 for connections'. As concessions to assist with travel costs were not available to people on

350 low incomes[1] (Department for Transport 2013), participants in low-paid part-time work were

351 often unable to reach desired environmental spaces, such as beaches. An example were Laura

352 and her family of five who live on a low and irregular income, as both her and her husband

353 are self-employed artists. Their access to the Cornish coast was constrained by a mixture of

354 economic and physical constraints: 'To put a whole family [on the bus] to say go to Redruth,

355 it costs up to £20…we definitely miss out as a family on all these lovely places. But we know

356 they're there, we just can't get there' (Laura).

357

358 Access through other forms of mobility (e.g. cycling or walking) was found to be intrinsically

359 linked to people's physical condition, such as health, fitness, age and the implications of aging.

360 Additionally, the distance to places was cited as common barrier where participants lacked

361 access to transportation. Besides acting as a physical constraint, poor health and a lack of

362 fitness were found to also cause a psychological inhibition, e.g. the fear of facing a journey

363 because it is perceived long or challenging. Such inhibitions, however, were not always a fair

364 reflection of the participants' physical ability, but instead mirrored social perceptions of the

365 aging process. For example, David's perception of the trip to the beach has changed over the

366 years, thus presenting not only a physical (due to the topography of the place) but a

367 psychological constraint: 'As you get on in years, a ten-minute walk is not short…Because of

---

[1] Concessions are available to children from low-income families, but not adults at present.

368   the return journey to look forward to as well. To get there is downhill and the return journey

369   is uphill.'

370

371   *4.3* *Structural and relational mechanisms*

372

373   People's ability to engage with the environment was also shaped by the political-economic

374   and social-cultural context through a set of structural and relational mechanisms (Ribot and

375   Peluso 2003). Our analysis suggests that these consist of an economic and relational

376   dimension. Economic mechanisms are reflective of underlying structural factors, while

377   relational mechanisms gain importance through the negotiation of social affiliation and

378   relationships.

379

380   On the one hand, economic characteristics closely interacted with aspects of physical and

381   psychosocial mechanisms of access to the environment. Money and the cost of things (e.g.

382   transport, admission fees) were key factors in shaping participants' perceptions of what is and

383   is not possible. For instance, Sam was concerned about cost, as 'most places like that [public

384   gardens], unless you go there on a free day, they cost quite a bit of money to get to anyway.

385   I tend to just keep it very rarely going to places like that.'

386

387   Social relationships and networks, on the other hand, became instrumental in offsetting some

388   of the effects of economic constraints. Affiliation to individuals or groups supported

389   participants' engagement with places that they valued. Visiting these with others helped

390   them overcome inhibitions linked to the perception of certain places being unsafe. For

391   example, Wendy was wary of venturing out to remote areas on her own but belonging to the

392 RSPB meant that she could go bird watching with others on a regular basis. Companionship

393 and family were explicitly referred to as important mediators of access. Whereas, tThe lack

394 of company deterred some participants from pursuing activities they favoured, leading to

395 feeling lonely and socially isolated. For example, David who lives in a small coastal town has

396 not set foot on the beach for 15-20 years, despite it being within walking distance:

397   'I would like to go swimming, but I don't have anyone to go down to the beach with…I

398   just wished I had somebody else, or something else, to take along with me and I'd

399   probably do it more regularly.'

400 This suggests that although places might be within physical reach, a social barrier may

401 discourage people from utilising them.

402

403 *4.4 Psychosocial mechanisms*

404

405 Psychosocial mechanisms encompass perceptions of people and places, preferences and

406 attitudes. Places embody more than simply a physical setting, and are attached a meaning

407 and value through participants' personal experiences and cognitive interpretation (Relph

408 1976, 1985; Sack 1997; Tuan 1977). Thus, it is crucial that the conceptualization of access to

409 places goes beyond the physical and considers people's psychologies, including preferences,

410 attitudes and perceptions. These are shaped by social and cultural values, people's relations

411 with nature, and the practices associated with environmental spaces (Fish, Church, and

412 Winter 2016), and lead to positive or negative perceptions (Mesch and Manor 1998; Stedman

413 2003).

414

415   The recall of memories and past experiences resulted in positive or negative connotations,

416   which shaped participants' willingness to engage with places. For instance, Marie's

417   experience of public gardens has led her to seeing these as isolating, artificial and pretentious,

418   and she avoided visiting them: 'I'm not very keen on public gardens…There's too many signs

419   saying, "keep off the grass"…I just think it's too gentrified often, and too organized.'

420   While Wendy's perception of the coastal path was overshadowed by bad memories: '…it

421   wasn't until I've actually slipped on the path and looked down and I thought "oh, nobody

422   knows where you are"…I won't do it again.'

423

424   ~~On the other hand~~Whereas, pleasant memories created and strengthened a positive

425   emotional bond between participants and places, also referred to in the literature as place

426   attachment (Low and Altman 1992). This was evidenced by participants' narratives:

427   'The whole area is kind of my home…'cause I remember as a child swimming on the

428   beach in the harbour… I was born by the sea and I spent my childhood on the beaches.

429   It's my kind of area.' (Charlie)

430   'That's a picture of Gwithian beach, where when I was a child, I used to spend a lot of

431   time. Just playing on the beach in the rock pools, swimming, building my sandcastles,

432   looking out over St Ives…It's part of where I was born, where I was brought up. Yeah,

433   the beach is my life, really!' (Sam)

434   These memories facilitated access and, on occasions, outweighed the negative effect of some

435   physical and economic barriers (e.g. lack of transport, distance, finances). For example,

436   despite financial constraints, Charlie made a determined effort to return to the place where

437   he grew up as much as his means allowed him: 'Again it's all about money…I don't go quite

438   so much to St Ives now.' Similarly, Sam, who struggled to afford public transport, was willing

439   to walk miles to visit Gwithian beach, because it held happy childhood memories: 'it's about

440   4 miles. It's in between Hayle and Porthreath, so you've gotta walk the whole length of Hayle

441   beach'.

442

443   Perceptions about the safety of places varied across people and were largely shaped by

444   personal experiences. While some participants associated remoteness with feelings of calm,

445   others felt exposed and vulnerable unless they were accompanied by others. For example,

446   group walks instead of lone rambling were preferred by some. According to Charlie '[t]he

447   footpath is nice, but they're dangerous.' Wendy shared this sentiment:

448   'I wouldn't walk on my own…Nobody knows where you are… You just don't know, do

449   you, ? wWho you gonna meet! I would be very wary of walking on some footpaths,

450   certainly. I just think it's fairly remote and you're on your own'.

451   Contrary to Charlie and Wendy, Marie was not fazed by remote places:

452   'I have been quite a few miles on the coastal path on my own and haven't seen

453   anyone… I'm happy to go on my own…I'm much more scary than anything else along

454   that coastal path.'

455

456   The ambience of places acted as an important mediator of psychosocial access, as feelings of

457   calm, tranquillity and relaxation were experiences participants often sought in remote

458   settings. Tourism was seen as the primary cause of changes in the overall atmosphere of some

459   environments, particularly the beaches and coastal areas. Charlie felt that holidaymakers

460   spoil the tranquil idyll of picturesque beaches: 'One of the best walks, I think, is

461   Porthcurno…Unfortunately, all the tourists have found the place now, so it's always packed

462 out with tourists.' Similarly, while Marie found a sense of satisfaction in relaxing on the beach

463 whilst observing visitors, she did still prefer solitary places:

464   'I like to get a quiet place, I guess, when I go to the beach…And I quite like to sit

465   listening to all the different holidaymakers. I quite enjoy that aspect of it, but best of

466   all I like a nice quiet place.'

467

468 Access to places was also affected by participants' attitudes, motivation and preferences,

469 because places take on different identities through human experience, which shapes the

470 ambience and feelings that different individuals attach to them (Relph 1976). Despite her love

471 of all things natural, Wendy was sceptical about woods and forests, because she was 'not a

472 lover of a lot of trees together'. Being surrounded by trees gave her a sense of claustrophobia,

473 therefore she preferred open spaces. A qualitative study in the North of England revealed

474 similar findings in regards to woods and concluded that people experience natural

475 environments in diverse ways - what some may find therapeutic and calming, others might

476 regard off-putting or even scary (Milligan and Bingley 2007). While decisions about

477 engagement might be a matter of preference, it is also possible that participants were

478 drawing on a mixture of prior personal experiences and cultural beliefs associated with a given

479 environment. For instance, Milligan and Bingley (2007) cited the representation of forests in

480 folklore and myth as culturally significant determinants of how these places were viewed and

481 utilised.

482

483 Often physically accessible places were not utilized due to the absence of motivation.

484 Motivation here was intimately linked with structural and relational attributes, including

485 social isolation and poor social networks, as well as a result of character traits, such as a

21

negative predisposition or a 'can't do' attitude. Charlie, a native Cornishman, has never visited the Lizard peninsula. He perceived the 20-mile journey as quite some effort: '…it's quite a trek from here, because the roads are quite windy, and I'd take couple of hours, three or four hours anyway, by the time you get down there...' Charlie was one of few participants who had their own transport, and the journey from his home to the Lizard would take approximately 40 minutes by car, or two hours by public transport. Conversely, other participants were highly motivated to visit even less accessible places, because 'it's going to be memories we going to have to live on in the end, […] when you can't get out and about yourself' (Wendy). For instance, Aan injury made Marie realise the importance she attributed to remote natural places:

> 'A while ago I hurt my foot and I wasn't able to walk too far, and I found that…missed
> those places. […] I would have to find a different way to get to those places, or to find
> similar places somewhere else more accessible.'

Finally, places that participants did value and feel affinity to were frequently 'forgotten' or simply taken for granted. A complacent attitude towards places thus acted as yet another psychosocial barrier to access. When talking about places he visited and places he wished to get to, Dan admitted that '…when you live in places that people go to visit on holiday…When you live there and it's down the road, you tend not to go there. You just think: tomorrow.' Or aAs Charlie has put it: '…when it's on your doorstep you sometimes don't go.'

5. Discussion

509   While rights-based mechanisms are at the forefront of Leach et al.'s (1999) and Ribot and

510   Peluso's (2003) work, these emerged as less significant in our study, relative to the other three

511   access mechanisms. This is potentially due to the differences in property rights and tenure

512   arrangements between the UK and developing countries, where much existing research on

513   access to ecosystem services and natural resources takes place (Schlager and Ostrom 1992;

514   Leach, Mearns, and Scoones 1999). Moreover, a series of legislation authorises public access

515   to environmental spaces, including privately owned beaches (e.g. Countryside and Rights of

516   Way Act 2000), and a well-established network of public footpaths and coastal paths makes

517   these physically more accessible.

518

519   Spatial analyses of access are common in industrialised contexts where distance to green

520   spaces, parks or the coast is used as a proxy for access. While participants in this study indeed

521   described distance as a mediator of access, it only constituted one dimension of physical

522   access. Several interrelated factors determined mobility and physical access, and perceptions

523   of distance varied depending on age, personal abilities and transport. MacIntyre, MacDonald,

524   and Ellaway (2008) suggest that people's evaluations of distance are often at odds with

525   objective measurements used in many large-scale survey methods. This is exemplified by

526   Charlie's account of the distance between his home and the Lizard Peninsula, which he

527   perceived as a three- four-hour journey, rather than the likely 40 minutes by car or two hours

528   by public transport. Evidently, physical distance can evoke psychological barriers of access,

529   through judgements about what is attainable or feasible given one's characteristics and

530   circumstances. Jones, Hillsdon, and Coombes (2009) also find that despite the geographic

531   proximity of green areas, residents of deprived neighbourhoods tend to perceive access to

532   these more difficult, resulting in less frequent visits.

533

534   Our participants cited lack of companionship and negative prior experiences (such as

535   accidents or overcrowding) as inhibitions to visiting the beach or walking the coast path. This

536   demonstrates that physical mechanisms are also closely linked to structural and relational

537   factors. We found that physical access to more remote places is also conditioned by socio-

538   economic factors, which were generally referred to by participants as barriers, and included

539   low incomes, costly transport and the lack of concessions for low earners. However, our

540   findings also indicate that place attachment (Low and Altman 1992), manifest in a strong

541   emotional bond with places, can outweigh some physical and structural access barriers. This

542   is evidenced by participants' accounts of proximity maintaining behaviour in the face of

543   transport and financial constraints, such as Sam walking miles to his favourite beach, or

544   Charlie's regular visits to St Ives to reminisce about childhood memories.

545

546   Although research on access to woodlands in the UK has highlighted the role of people's

547   perceptions and emotions in mediating visits to forest, psychosocial access mechanisms as

548   important mediators of people's ability to engage with natural environments remain poorly

549   documented in the environment-wellbeing literature. Meanwhile, other fields - such as health

550   psychology, social work and social psychology - have explicitly recognized the role people's

551   psychologies play in the acceptance of medical help, care or treatment (Cook et al. 1999;

552   Freeman 1999) or the uptake of physical exercise (Sallis et al. 1990). Our findings reveal that

553   psychosocial factors are interlinked with all other access mechanisms. For example,

554   perceptions of places and participants' attitudes mediate physical access. This is evident in

555   narratives of complacent attitudes towards places on one's doorstep.

556

24

557 Importantly, psychosocial mechanisms resonate with the idea of Bourdieu's *habitus*

558 (Bourdieu 1977), or the system of dispositions linked to objective structures (e.g. age, gender,

559 class, economy) that shape aspirations and practices. Indeed, participants enact internalized

560 rules and behaviours, because of their dispositions, which are manifest in their perceptions

561 of places, people and phenomena, as well as attitudes and preferences. For example, social

562 isolation and a lack of companionship are found to preclude participants' use of public

563 footpaths and beaches, as these are perceived inappropriate and even unsafe for lone

564 wandering. These observations confirm Kessel et al.'s (2009) suggestion that how people

565 perceive particular environments and the behaviours they associate with these can act as

566 symbolic barriers to access.

567

568 6.Conclusion

569 Building on Ribot and Peluso's Theory of Access, as well as insights from analyses of access to

570 environmental spaces and ecosystem services in developing and industrialised contexts, our

571 study addressed a gap in the literature concerning access to environmental spaces in rural

572 and coastal environments by participants with some form of socio-economic disadvantage.

573 Informed by advances in the fields of rural sociology, the sociology of access to (not only)

574 environmental spaces, health geography and environmental psychology, we investigated the

575 nature of mechanisms through which socio-economically disadvantaged participants

576 negotiate access to ecosystem services. These mechanisms emerged not as discreet

577 categories that shape access independently; rather they were closely intertwined and as such

578 also conditioned one another. Participants' accounts revealed four types of access

579 mechanisms (rights-based, physical, structural and relational, and psychosocial), which

580 extend Ribot and Peluso's theory and existing empirical research on access, by explicitly

581 identifying and discussing psychosocial mechanism.

582

583 In conclusion, our findings reveal that socio-economic disadvantage penetrates the

584 mechanisms that mediate access to environmental spaces. Hence, in order to realise the

585 positive impact that exposure to natural environments could have on the health and

586 wellbeing of disadvantaged members of society, we must disentangle the complex web of

587 interrelations between underlying structural conditions linked to disadvantage and

588 mechanisms of access, as well as develop an enhanced understanding of the interaction

589 between different types of access mechanisms.

590

601

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