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Review

Collective place memory: Remembering together in place-people ecosystems

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Collective memory is deeply connected to place. Places are powerful mnemonic cues, and many practices of collective remembering are tied to place. However, experimental psychology has largely overlooked this connection. Here, we leverage distributed cognition theory to develop a framework within which existing psychological research can explore the connection between place and collective memory. We do so by focusing on two areas of growing recent research attention: social wayfinding and atmospheres, two key examples of how collective memory and place are intertwined.

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Introduction

The important connection between place and collective memory is widely recognised in the humanities and social sciences, and in popular culture [1]. Places — not absolute objective space, but the lived places where experience unfolds — are powerful mnemonic cues, structuring memory at both individual and collective levels. Group-level practices of remembering are often strongly rooted in place: it matters greatly where many rituals, memorials, or protests occur. The importance of place for collective memory is also deeply felt when people's home environments are lost or transformed as a result of climate change, war, or other forms of displacement [2,3].

Experimental psychology, however, has barely explored these connections between place and collective memory. One body of research addresses environmental effects on memory, where 'place-dependent' memory is a central form of context-dependence [4–6]. Other research confirms that neural regions involved in spatial cognition are also involved in memory [7–9]. In both cases, however, the focus has been firmly on individual, rather than social or collective, cognition. Productive research on place in environmental and ecological psychology has rarely addressed memory [10,11]. And in turn, research in the humanities and social sciences which does highlight connections between place and collective memory, on topics as diverse as atmospheres (see below), commemoration [12], urban spaces [13], place attachment [14], heritage, or landscape, has not yet guided or inspired substantial experimental work in psychology.

In this opinion piece, we develop a framework within which existing psychological research can be extended to explore the collective dimensions of this place-memory connection, focusing on dyads and small groups. Then, we look at how research in the humanities and social sciences on that topic can be adapted to experimental approaches in psychology. We highlight promising recent developments, and both methodological and conceptual challenges.

Remembering together in place-people ecosystems

As this special issue demonstrates, many forms of memory studied in psychology have a social or collective dimension. The musicians in a pop or jazz band, for example, remember how to play a particular song together; they share many semantic memories about its history, musical style, meanings, and associations; they may jointly reminisce about the particular night they played it to a tough crowd [15]. Each of these forms of collaborative or collective remembering, in turn, may involve places, in a range of stronger or weaker ways. Indeed, consideration of the ways that place influences memory suggests how tightly integrated episodic and embodied or procedural memory are in our everyday ecologies of action and interaction [16,17].

Places can, firstly, be part of the content of our collective memories, among the things that we remember together. The band members laugh or cringe as they recall the dismal venue or the unwelcoming atmosphere that night: lovers or friends who say 'do you remember Barcelona?' elicit shared memories of joint experiences

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or sequences of past events in that city; groups of people who gather to remember and feel together in the wake of sad or violent events may talk about the location or setting of those past events for all kinds of emotional and political reasons.

Secondly, places operate as triggers or stimuli to collective remembering. Passing that club years later, the musicians find themselves now again bringing to mind its dank smell and viscerally shivering at the memory of their hostile reception. Places operate as particularly powerful cues to shared or collective memory not only when we actively return together to the old familiar town or building itself, but also by way of mediating traces. Photos and mementos function as objects evocative of significant places, as do narratives and stories [18]. When an older couple, for example, jointly reminisce about a particular incident when they visited the Andes years before, together they 'go episodic', producing richer, detailed recall, laden with affect, and with increased non-verbal interaction [19].

Sometimes, the coupling between places and memories for some group members may be so tight that they could not remember certain events if they were not back at the place where those events occurred, or would remember them in thinner or different ways. One way to conceptualize this is through a broadly situated or distributed approach to memory and cognition [20,21]: places can in certain circumstances be partial constituents of the activities of remembering, or parts of the distributed vehicles that carry memory content. The point is not that places 'have' memories on their own - no more than do isolated or disconnected brains - but that in some cases remembering is intrinsically interactive or relational. In the case of shared memory, what group members bring to the place need not be convergent or identical: what matters, rather, are the forms of interaction and cognitive-affective contact over time with the place, and the microprocesses of communication between group members that mediate what and how they feel and remember there. The primary goal of such an approach is more methodological than metaphysical, encouraging us to study a range of dimensions of interaction between people and particular places as remembering occurs in what we may call 'place-people ecosystems' [22].

In studying how people remember places and routes, much research on navigation and spatial cognition has operated under severe self-imposed restrictions. Experimental work has typically tested how people learn their way around novel environments, neglecting the kind of memory for familiar places that experts develop over time in the form of deep cognitive and embodied certainty. This has started to change with recent calls to bring advances in the study of spatial cognition in the cognitive sciences out into 'the wild' [23–26]. Likewise, to study only individual navigation neglects the common experiences of wayfinding or consulting and interpreting our navigation technologies together. This too is changing as psychologists and cognitive neuroscientists increasingly focus on collaborative wayfinding.

Social wayfinding

When we find our way, we often do so in groups. Even when traveling solo, we rely on technological aids [27], and we go through "designer environments" [28] that have been collectively engineered so as to facilitate wayfinding (e.g. both through urban planning and through interventions such as signage, on-street maps, and memorable landmarks).

Dalton et al. [29] argue that planning and decision-making for navigation often operate at a group level in real contexts and environments. They introduce two dimensions along which to taxonomize social wayfinding: synchrony and the strength of the communicative interaction. Synchronous wayfinding happens when collaboration happens with people who are co-present both temporally and spatially, while all other cases are asynchronous. During strong social wayfinding, there is active communication about locations and route choice, which can span verbal exchange as well as pointing and gestures. During weak social wayfinding, communication is unintentional, as individuals use others as cues. This leaves us with four categories of social wayfinding: asynchronous weak (following a trail left by people walking through), synchronous weak (following other passengers when looking for the way to baggage claim when leaving an airplane), asynchronous strong (receiving route instructions before setting off), and synchronous strong, which is the paradigmatic case of collaborative wayfinding, in which a group undertakes the whole navigational process together.

Recent years have seen several attempts at exploring the social dimensions of wayfinding experimentally [30]. One study compares familiar versus stranger dyads and finds that (surprisingly) familiar dyads do not outperform those dyads formed by strangers, though familiar dyads proposed more unique routes during planning [31]. Another study examined the effect of technology and found that using a map during recall mitigates collaborative inhibition (people remembering less as members of a group than individually) [32]. Finally, a virtual reality experiment compared weak (virtual agents one can follow) versus strong (a virtual guide) social wayfinding and found the latter to result in better spatial knowledge acquisition [33].

Although this line of research is in its infancy, these collaborative wayfinding studies offer promising experimental paradigms to study how places are remembered collectively. The collective dimension here spans the exploration of places, the collaborative integration of spatial memory, and the application of that spatial

memory to planning and decision-making in a cooperative fashion. From a distributed cognition perspective, we can look to social wayfinding as an example of how the entanglement of place and memory spans various spatial and temporal scales. This outlook shifts the focus from the individual towards the place-people ecosystems in which collaborative wayfinding unfolds. Such ecosystems involve both dyads and large groups, as well as technology and place-specific specific cultural practices of signage and coordination.

Atmospheres

Atmospheres are affective phenomena that manifest spatially and are grasped in an embodied, pre-reflective way [34–37]. Think of the gloominess of a ruin, the joy of a festival, or the serenity of a cathedral. Otto Bollnow's treatise on moods is a famous discussion of the connection of memory and atmosphere [38]. There are times at which, suddenly, involuntarily, a nebulous affective atmosphere comes to mind, and out of it, distinct elements of a half-remembered situation arise, slowly solidifying into a fully formed memory. The famous example that Bollnow builds on is Proust's madeleine. At first, the madeleine summons a diffuse childhood atmosphere, and from it, "the whole of Combray and of its surroundings, taking their proper shapes and growing solid, spring into being."

Building on Bollnow, Kluck [39] argues that remembered atmospheres can bring up the holistic character of a situation, place or event, which gradually evolves into a richer structure involving specific details. Schwabe [40] points out that this atmosphere-memory connection goes two ways: "Memory is also in and of atmospheres. When we remember a place, we also remember its particular atmospheres and how they might have changed over time. And when we perceive an atmosphere, we do so in part through the memories we bring to it". Walking into a familiar place, the atmosphere might bring up memories, but memories will also colour the felt atmosphere of the place. This is akin to Bartlett's conception of how remembering, as a process, begins with an attitude or a holistic feeling, and then proceeds to justify that attitude [41].

There is a crucial collective dimension to the link between memory and atmospheres [42]. Paradigmatically, atmospheres are experienced as shared, as being out there in an intersubjective space [43]. When we enter a party, we are partaking in the joy of the party together with others. Grasping an atmosphere is grasping a shared situation affectively. But this requires a common repertoire of memory, both of specific events, and the embodied memory of habits. And when we remember atmospheres, we tend to remember an affective quality that we shared with others. Finally, and linking back to the theme of monuments, the engineering of specific atmospheres is a central element in practices of commemoration [44]. Not only can atmospheres connect individuals to a larger collective, but, because of their diffuse quality, they can also operate below the radar of dominant, state-sanctioned practices of remembrance [45]. The engineering of atmospheres can be understood as a place-based, widely distributed process. This process is affective (but often, as we've seen, also mnemonic), and it involves the entrainment of interoceptive and external elements at both an individual and a collective level [46].

The fuzzy ontological status of atmospheres makes it conceptually and methodologically challenging for experimental psychologists to investigate them [47]. Nevertheless, there is increasing interest in neuroarchitecture and environmental psychology in examining the cognitive and neurological underpinnings of our engagement with the affective qualities of space [48–53]. While these studies have not looked at cognition beyond the individual yet, they offer promising experimental paradigms.

Conclusion

Collective memory is deeply connected to place. Places are often the content or the trigger of collective memory, but they can also be constituents of collective remembering. We have shown two examples, social wayfinding and atmospheres, in which the connection of place and collective memory is evident, and we have advanced a distributed cognition view as a methodological framework through which to study this place–people ecosystems.

Credit author statement

PFV: conceptualization; methodology; writing – original draft; writing – review and editing.

JS: conceptualization; methodology; writing – original draft; writing – review and editing.

Declaration of competing interest

The authors declare the following financial interests/personal relationships which may be considered as potential competing interests:
John Sutton reports financial support was provided by Leverhulme Trust. Pablo Fernandez Velasco reports financial support was provided by The British Academy. If there are other authors, they declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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Data availability

No data was used for the research described in the article.

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Further information on references of particular interest

18. * This theoretical contribution suggests that cultural identity is materialised in the environment in the construction of collective memories, at both smaller and larger scales, when information from biological memory is integrated with information in artifacts or other sociotechnical resources.

22. * Noting that traces of many distinct past events, with different significance are often layered or superposed in the same places, this paper develops the notion of a place-people ecosystem within which we face the affective and cognitive challenges of constructing versions of the past together. It is just because shared memories and emotions can attach so deeply to accustomed terrain or neighbourhoods that displacement can be violent psychological as well as political disruption.

31. * This article compared familiar with unfamiliar in a wayfinding task. They found that both types spent similar times planning their routes, but the familiar dyads proposed more creative route plans and travelled more efficiently together in the wayfinding task.

32. * This article explores collaborative inhibition, the tendency for people to remember less as members of a group than they would be capable of were they to remember alone, which is a well-documented phenomenon in collaborative recall. They found collaborative inhibition in a collaborative spatial memory task.

33. * This study explored three different conditions in a virtual, sparsely populated, urban environment: unsupported wayfinding, strong social wayfinding, and weak social wayfinding. They found that strong social wayfinding supported knowledge acquisition and was less cognitively demanding, while weak social wayfinding worked better for participants who prioritised autonomy.

51. * This study used first-person videos through the built environment to explore the interaction of spatial and emotional processing of trajectories. They found that the hippocampus and parahippocampal cortex were modulated by both aesthetic and spatial qualities. Activity in these areas was also associated with the memorability of spaces. The experiment offers a useful paradigm for the study of atmospheres.