Abstract
Three studies were carried out to examine how place attachment and collective action tendency are related and what role self-expansion and social interactions play in this relationship. In the first study (N = 156) we found that a more active form of attachment – place discovered – is a significant predictor of tendency to engage in collective action in favor of one’s neighborhood. In the second study (N = 197), we focused on frequency of social interactions in one’s neighborhood as the antecedent of place attachment and collective action tendencies. We found that inhabitants who declared more frequent social interactions in one’s neighborhood, expressed stronger place discovered, and this attachment is related to collective action tendencies. In the third study (N = 153), we tested if self-expansion mediates this relationship. We found that stronger place discovered was related to the feeling of self-expansion that resulted from contact with neighbors. Moreover, self-expansion was related to the tendency to engage in collective action.

Keywords
place attachment, collective action, environmental psychology, self-expansion
From the diversity of approaches adopted by researchers regarding theory of place, one of the most prevalent constructs in environmental psychology is place attachment (Hidalgo & Hernández, 2001; Lewicka, 2011, 2012). It usually describes one's emotional bond with a place, which may lead to ingroup cooperation and collective actions on behalf of one's community.

Among the many different conceptualizations of place attachment, in the presented studies we concentrate on an approach developed by Lewicka (2012, 2013). Three types of place attachment are distinguished: place inherited, place discovered, and non-attachment. Previous research shows different profiles for inhabitants who are traditionally attached (strong attachment inherited), and actively attached (strong attachment discovered) (Lewicka, 2012). Place inherited designates strong link to the place of living based on family history and roots. That is, one considers the place of living as his/her own because one's parents and grandparents lived there. Place discovered is a bond with a place of living that is created by active exploration of this place, by conscious engagement in the pursuit to understand its historical background, and in exploration of its landmarks and districts. Lewicka’s conceptualization is rooted in Hummon’s (1992) typology of the place, where place inherited and discovered are equivalents of everyday and ideological rootedness, whereas non-attachment overlaps with Hummon’s dimensions of placelessness, relativity and alienation. People who are attached to their places of living in a more traditional way are usually less educated, less mobile, but have stronger relations with their families and friends. People attached in more active way are usually better educated, have higher cultural capital, have stronger bonding and bridging social capitals, and trust strangers more often (Lewicka, 2012).

Similarly to Hummon’s (1992) ideological rootedness, which is linked to taking an active interest in places’ affairs, place discovered seems to play a crucial role in engagement in collective action on behalf of one’s place and community. In contrast to place inherited, which is intergenerationally transmitted, place discovered is more active and refers to an emotional bond with the place achieved through processing information, knowledge, and experience of one’s settings (e.g., through walking or taking photos). Place discovered is also linked to an agentic modality of human existence, whereas place inherited turned out to be a part ‘communal’ cluster of variables (Lewicka, 2013). Cluster analysis has also shown that actively attached participants exhibit the strongest networking social capital (Lewicka, 2011). It has also been found that people who scored higher on place discovered dimension (actively attached) are in general more active (Lewicka, 2013).

Numerous studies have found the relation between place attachment and active engagement and action-orientation. People who are affectively bonded to a place are more motivated to protect or improve this place, because it is more meaningful for them. Therefore, they are more willing to engage in actions with other residents (Manzo & Perkins, 2006). Place attachment is beneficial for neighborhoods by facilitating in-
vollvement in local affairs (Lewicka, 2005), fostering behaviors and attitudes that protect against crime and incivilities (Brown, Perkins, & Brown, 2003), and playing an important role in promoting pro-environmental behavior (Halpenny, 2010; Uzzell, Pol, & Badenas, 2002). Devine-Wright (2009) proposed a framework for understanding negative reactions toward changes in one's environment. Place-protective actions are considered to be rooted in attachment to the place. Place attachment also predicts negative attitudes toward risky environmental changes (Vorkinn & Riese, 2001). Describing the pathways leading to civic activity (e.g., activities on behalf of a neighborhood), Lewicka (2005) postulated the following: (a) the socio-emotional path, in which the relationship between place attachment and civic engagement is mediated by neighborhood ties; and (b) the cultural path, which includes cultural capital and knowledge about one's ancestors. Recently, it has also been found that place attachment activation by teaching local history, leads to increased willingness to become civically engaged (Stefaniak, Bilewicz, & Lewicka, 2017).

Collective action can be defined as action directed at improving the conditions of one's group or outgroup that one shares solidarity with (van Stekelenburg & Klandermans, 2013). Analyses of social and economic factors related to the effectiveness of neighborhood collective action stressed the importance of environmental threat, socioeconomic status, and neighborhood investment (Mesch & Schwirian, 1996). When it comes to the factors linked to a personal motivation to become involved in collective action, researchers have highlighted the roles of group identification, grievance, anger (and other group-based emotions) and efficacy beliefs, which are related to coping resources and the conviction that social change is possible (e.g., Becker & Tausch, 2015; Klandermans, 2002; Thomas, McGarty, & Mavor, 2009; van Zomeren, Postmes, & Spears, 2008). Moreover, environmental scientists have demonstrated that, in addition to strong identification with the group and/or community, social capital is often a necessary element in economic transactions and collective action (for example, in the context of scarce environmental resources, see Adger, 2003). Difficulties in establishing one's social networks may lead to a weaker sense of belonging to the place as well as lower engagement in neighborhoods. For example, social participation decreases with an increase in commuting time by car (Mattisson, Hakansson, & Jakobsson, 2015). In the current research, we seek to investigate the factors related to engagement in collective action, based on social and environmental psychological theories of place. We assume that among place attachment dimensions, place discovered in particular should predict willingness to act collectively.

Social Relations as Predictor of Place Attachment

Investigating the social dimension of attachment has a long tradition in place research. People may develop an attachment to a place, because of community ties and daily social routines in their settings. Social relations represent one of the best predictors of place attachment, and social factors are sometimes regarded as part of a multidimensional
construct of attachment (Scannell & Gifford, 2010). In the three-dimensional person–process–place organizing framework, social ties rooted in local places (e.g., coffee-shops) are described as a ‘community of place’, where members are connected through geographical relations. Neighboring behaviors, like contact and intimacy with neighbors, are also conceived as a part of neighborhood attachment (Brown & Werner, 1985).

Some researchers consider attachment to place and social relationships as separate concepts. This approach allows investigation of the associations between the characteristics of a place and strength of social bonds (e.g., Lewicka, 2011). Following this line of research, neighborhood ties are found to be a strong predictor of the attachment to home and neighborhood, as well as to the city district and city (Lewicka, 2010). Informal social interactions in the neighborhood also minimize the negative relationship between neighborhood diversity and interpersonal trust (Stolle et al., 2008). Local friendship (number of friends living within 15 minutes’ walking distance) increases attachment (Sampson, 1988), and inhabitants with a greater sense of social cohesion with neighbors also report stronger place attachment (Brown, Perkins, & Brown, 2003).

Although social determinants of place attachment have been extensively investigated, and neighboring is considered to be the most consistent predictor of citizen participation (Perkins et al., 1996), the path from social interactions through attachment to collective action has not been studied in the neighborhood context. The present research includes self-reports on participants’ social interactions in the neighborhood. We assume that people who engaged in more frequent social interactions in the neighborhood would also experience stronger place discovered, and this place attachment would be related to their collective action tendency. In other words, we predict an indirect relation between frequency of social interactions and collective action tendency, through place discovered.

Self-expansion and Collective Action

One important human motive related to agency and efficacy belief is a tendency for self-expansion (Aron, Lewandowski, Mashek, & Aron, 2013). This assumption is based on the idea that the self extends beyond the boundaries of the individual person, and includes more than personal attributes and traits (Wright, Aron, & Tropp, 2002). The origin of the self-expansion model is embedded in research on romantic love and interpersonal relations. This motivation to expand the borders of the self was introduced in order to capture the intrinsic drive to interact with strangers, often from outgroups. Dys-Steenbergen, Wright, and Aron described self-expansion as a basic motivation to ‘enhance personal efficacy by acquiring new resources, perspectives, and identities that can facilitate the achievement of present and future goals’ (2016, p. 2). Research on this part of human motivation has indeed shown that self-expansion is related to an increased sense of self-efficacy (Mattingly & Lewandowski, 2013), a greater likelihood of accomplishing goals (Xu, Floyd, Westmaas, & Aron, 2010) and heightened approach motivation (Mattingly, McIntyre, & Lewandowski, 2012).
Two pathways for satisfying the motive for self-expansion involve: (a) being engaged with significant others and interacting with people that could broaden one’s perspectives and help in developing new competences; and (b) experiencing exciting and challenging activities that help to advance one’s knowledge and develop new social identities. When the motivation to self-expand is satisfied, individuals can have more positive feelings about their coping resources, abilities to understand social situations and stronger identity buffers to rely on (Mattingly & Lewandowski, 2014; Wright et al., 2002).

Recent studies conducted among participants of mass gatherings show that self-expansion is related to collective action intention (Besta, Jaśkiewicz, Kosakowska-Berezecka, Lawendowski, & Zawadzka, 2018). Moreover, self-expansion has emerged as a significant mediator of the relationship between strong group adherence (measured by the identity fusion scale), and collective action on behalf of fellow ingroup members. That is, including the group of other activists in the self-concept is related to stronger self-expansion. Participants who expanded the self-construct more expressed stronger efficacy beliefs. Finally, the conviction that working together allows ingroup members to effectively pursue common goals is positively related to willingness to engage in collective action. Based on this research, we would also like to explore whether, in the context of communal actions on behalf of one’s neighborhood, satisfying the motive for self-expansion is (a) linked to collective action, as well as (b) could be seen as a significant mediator of relationship between place attachment and collective action intention.

**Current Studies**

In the present research, we seek to integrate results of previous studies from the socio-psychological perspective and environmental science. Moreover, our aim is to explore the role of frequency of social interactions and place attachment in intentions to act collectively on behalf of one’s neighborhood. Our first goal is to test the prediction that place discovered is a significant factor linked to willingness to act collectively, as it is considered a more reflective and agentic way of seeing oneself as a part of the city.

As social capital is related to the strength of social ties and to general trust, our second goal is to explore whether opportunities for social interaction with other residents in the neighborhood are linked to place discovered and to a stronger collective action intention. And finally, our third goal is to explore whether self-expansion is related to place discovered, and whether it allows the prediction of collective action engagement.

We tested the relationship between place attachment, social interactions, self-expansion and collective action tendency in three studies. In Study 1, we examined various measures of place attachment and place identification as potential predictors of collective action tendency. In Study 2, we conducted field research to explore the relationship between frequency of social interactions in the neighborhood, place discovered and collective action tendency. Finally, in Study 3, we tested the mediating role of self-expansion on the relationship between place discovered and the tendency to engage in collective action on behalf of one’s neighborhood.
Study 1

Method

Participants

The research participants were residents of Tricity, Poland. A link to the study was placed on neighborhoods’ Internet forums and websites, as well as notice boards around the city. A total of 156 individuals filled out the online survey (111 women, 45 men) with $M_{\text{age}} = 26.74$ years ($SD = 9.78$ years).

Measures

All three studies reported here are part of a broader project investigating environmental and psychological determinants of urban quality of life. Among other measures that are not analyzed in the present study, we used the scales described below (all Cronbach’s alphas are presented in Table 1).

Place Attachment Scale

This scale consists of 18 items and measures three dimensions – place inherited, place discovered and non-attachment (Lewicka, 2012). Sample items include the following: ‘I like to track changes that happen in my city’ and ‘This city is permanently connected to my family’. Participants respond on a 7-point scale anchored on (1) definitely not true to (7) definitely true.

City Identification Scale

We applied a scale of six items that measure group identification, adapted to the context of the city (Mael & Ashforth, 1992). Items are as follows: ‘When someone criticizes my city,

<table>
<thead>
<tr>
<th>Measure</th>
<th>Scale items (range)</th>
<th>Study 1</th>
<th>Study 2</th>
<th>Study 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Place inherited</td>
<td>6 (1-7)</td>
<td>20.99</td>
<td>6.42</td>
<td>.65</td>
</tr>
<tr>
<td>Place discovered</td>
<td>6 (1-7)</td>
<td>27.35</td>
<td>6.40</td>
<td>.75</td>
</tr>
<tr>
<td>Non-attachment</td>
<td>6 (1-7)</td>
<td>22.37</td>
<td>6.76</td>
<td>.77</td>
</tr>
<tr>
<td>City identification</td>
<td>6 (1-7)</td>
<td>27.49</td>
<td>7.68</td>
<td>.90</td>
</tr>
<tr>
<td>Identity fusion: city</td>
<td>1 (1-5)</td>
<td>2.97</td>
<td>1.16</td>
<td>-</td>
</tr>
<tr>
<td>Identity fusion: neighborhood</td>
<td>1 (1-5)</td>
<td>2.92</td>
<td>1.16</td>
<td>-</td>
</tr>
<tr>
<td>Social interactions</td>
<td>6 (1-7)</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Self-expansion</td>
<td>3 (1-7)</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Collective action</td>
<td>3 (1-7)</td>
<td>13.62</td>
<td>3.61</td>
<td>.70</td>
</tr>
</tbody>
</table>

Note. $\alpha = \text{Cronbach’s } \alpha$. 

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it feels like a personal insult; ‘I am very interested in what others think about my city’; ‘When I talk about my city I usually say “we” rather than “they”’; ‘City successes are my successes’; ‘When someone praises my city, it feels like a personal compliment’; and ‘If a story in the media criticized my city I would feel embarrassed’.

**Identity fusion**

The pictorial measure adapted by Swann et al. (2009) was used to assess identity fusion. The participants were asked to choose one of five pictures that best represented their relationship with (1) the neighborhood and (2) the city. Participants could choose among five symmetrical degrees of overlap (option A - 0% overlap, option B - 25%, option C - 50%, option D - 75%, and option E - 100%). Option A designated total independence of self from the neighborhood or the city, while option E signified complete overlap of the self-concept and the group.

**Collective action**

To measure the participants’ eagerness to engage in collective actions on behalf of their neighborhoods, we used a three-item scale (sample items: ‘I would sign a petition against government plans that were detrimental to my neighborhood’, ‘I would participate in demonstrations against ordinances detrimental to my neighborhood’). Participants respond on a 5-point scale ranging from (1) strongly disagree to (7) strongly agree.

**Results and Discussion**

**Preliminary analysis.** Descriptive statistics for measures used in our studies are displayed in Table 1.

An analysis of correlation showed that all variables were correlated (see Table 2). All subscales of place attachment, as well as measures of identification were related to collective action tendency with the strongest link between place discovered and collective action tendency ($r = .57, p < .001$).

**Table 2**

<table>
<thead>
<tr>
<th>Measure</th>
<th>Pl disc.</th>
<th>N-a</th>
<th>City ident.</th>
<th>IF: city</th>
<th>IF: neighb.</th>
<th>CA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pl inh.</td>
<td>.51***</td>
<td>-.50***</td>
<td>.48***</td>
<td>.47***</td>
<td>.45***</td>
<td></td>
</tr>
<tr>
<td>Pl disc.</td>
<td>-.39***</td>
<td></td>
<td>.62***</td>
<td>.47***</td>
<td>.44***</td>
<td>.57***</td>
</tr>
<tr>
<td>N-a</td>
<td></td>
<td>-.35***</td>
<td>-.44***</td>
<td>-.37***</td>
<td>-.31***</td>
<td></td>
</tr>
<tr>
<td>City ident.</td>
<td></td>
<td></td>
<td>.50***</td>
<td>.42***</td>
<td>.46***</td>
<td></td>
</tr>
<tr>
<td>IF: city</td>
<td></td>
<td></td>
<td></td>
<td>.62***</td>
<td>.43***</td>
<td></td>
</tr>
<tr>
<td>IF: neighb.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.46***</td>
<td></td>
</tr>
</tbody>
</table>

**Note.** Pl inh. = Place inherited, Pl disc = Place discovered, N-a = Non-attachment, City ident = City identification, IF:city = identity fusion with city, IF:neighb = identity fusion with neighborhood. ***$p < .001$. **
We applied multiple regression analysis to determine which place attachment dimension would predict collective action tendency.

As we expected, place discovered was the only significant predictor among the attachment dimensions ($\beta = .35, p < .001$). In addition, the other significant predictor of collective action tendency was fusion with the neighborhood, ($\beta = .17, p = .04$), which confirms the results of previous studies linking identity fusion with willingness to engage in collective action (Besta et al., 2018).

In this study, we were able to show that place discovered is the strongest predictor of collective action tendency. Activity on behalf of one’s neighborhood is more prevalent among those inhabitants who feel actively attached to their place of living. On the other side, place inherited, which reflects a more conservative form of attachment (i.e., based on family background), did not predict a willingness to engage in collective action. This might suggest that rootedness alone is not enough to be engaged in local affairs, if it is not linked to conscious exploration of one’s town.

**Study 2**

In order to replicate and generalize findings from Study 1, Study 2 was conducted using the paper–pencil procedure, among inhabitants of four districts of Gdańsk, northern Poland. We decided to introduce a direct measure of frequency of social interactions. We assumed that the quality of one’s social relations in the neighborhood would be related to the tendency to engage in collective action through indirect pathways, including place discovered.

**Method**

**Participants**

Two research assistants recruited participants in four neighborhoods in Gdańsk (Kiełpino, Osowa, Dolne Miasto and Nowy Port). Questionnaires were distributed to pedestrians and residents in these neighborhoods until at least 50 questionnaires per neighborhood were returned. The total sample consisted of 208 participants (125 women, 83 men and 4 with missing data on gender) with $M$ age = 47.81 years ($SD = 16.62$ years).
Measures

Among other measures that are not analyzed in the present study, we used the scales described below.

**Place Attachment**

We used the 6-item ‘place discovered’ subscale of the place attachment scale (Lewicka, 2012). Participants respond on a 7-point scale ranging from (1) definitely not true to (5) definitely true.

**Social Interactions**

Participants were asked to estimate the frequency of social interactions in their neighborhood. A seven-item measure was created. The scale consisted of the following items: small talk, exchanging smiles, eye contact, helping, drinking coffee, recognizing one’s neighbor and extended conversation (e.g., “How often in the last year have you had small talk in your place with someone you met accidentally?”). Participants respond on a 7-point scale ranging from (1) never to (5) almost always.

**Collective action**

For collective action, the same 3-item scale as in Study 1 was used.

**Results and Discussion**

Analysis of correlation between variables is displayed in Table 4.

To explore whether the indirect effect of social interactions on collective action was significant, we conducted mediation analysis using the PROCESS (Hayes, 2012) bootstrapping macro (10000 samples). We added place discovered as a mediator (see Figure 1). The frequency of social interactions was related to place discovered \( (b = .25) \). Participants with a stronger place discovered reported a higher willingness to engage in collective action \( (b = .18) \). The bias-corrected bootstrap confidence interval for the indirect effect \( (b = .05) \) based on 10000 bootstrap samples was above zero \( (.02 \text{ to } .08) \).

The results of Study 2 confirmed that place discovered may be useful in explaining collective action tendency. We also illustrated the role of social interactions as a predictor

<table>
<thead>
<tr>
<th>Table 4</th>
<th>Zero-Order Correlations With Pearson r in Study 2</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Soc. Int.</td>
</tr>
<tr>
<td>Pl disc</td>
<td>.26***</td>
</tr>
<tr>
<td>Soc.int.</td>
<td></td>
</tr>
</tbody>
</table>

*Note.* Pl disc = Place discovered; Soc. Int = Social interactions; CA = collective action.

*** \( p < .001 \).
of place discovered. Inhabitants who interact more frequently with others in the neighborhood feel more attached to their place, and this attachment is related to a tendency to engage in collective action.

In this study, we found that frequency of social interactions in one’s place allow the prediction of place discovered and is indirectly related to collective action tendency. This study supports previous findings that social relations are a predictor of attachment. We were able to establish that if in the local environment informal social interactions spontaneously occur, inhabitants experience more active attachment to their place of living. This study partially supports Lewicka’s (2013) notion that different types of social capital are linked to place inherited and discovered. In our study, social interactions in one’s neighborhood is linked to place discovered. If social interactions stimulate place attachment, we may conclude that the social environment of people who are successfully attached allows their important needs to be fulfilled. In Study 3, we decided to test, whether place discovered is related to satisfying one’s need to self-expand.

**Study 3**

In Study 3, we wanted to test the mediating role of self-expansion. There are some reasons to expect a relationship between place attachment and self-expansion, as several theorists have identified common principles of place and interpersonal attachment. Recently, Scannell and Gifford (2010) experimentally demonstrated that place attachment visualization enhanced participants’ sense of belonging. Place attachment reinforces social ties and belonging to the community (Hidalgo & Hernández, 2001; Kyle, Mowen, & Tarrant, 2004), and its dimension, labeled as discovered, is also more agentic and action-oriented (Lewicka, 2013). Therefore, in this study, we expected that participants with stronger place discovered would also feel more self-expanded through their contacts with neighbors, and

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**Figure 1.** Model of social interactions as a predictor of collective action tendency, with place attachment discovered as a mediator, in Study 2.
this self-expansion would be related to willingness to engage in collective action for one’s neighborhood.

Method

Participants

Among the residents of Tricity, Poland, 153 participants (112 women) with \( M_{\text{age}} = 25.74 \) (\( SD = 7.88 \)) were recruited. They completed an online survey. As in Study 1, a link to the study was placed on neighborhood Internet forums and websites, as well as notice boards around the city.

Measures

Among other measures that are not analyzed in the present study, we used the scales described below.

Place Attachment

As in Study 1, we used the 18-item place attachment scale (Lewicka, 2012). Participants respond on a 7-point scale ranging from (1) definitely not true to (7) definitely true.

Self-expansion

To investigate the feeling of nonrelational self-expansion resulting from relationships with neighbors, we used the measure of the individual self-expansion questionnaire (SEQ; Mattingly & Lewandowski, 2013). All items were presented in relation to a specific neighborhood. The scale included five statements: ‘Because of having interactions with your neighbors, how much do you feel that...’ ‘...you feel a greater awareness of things?’ ‘...you feel an increase in your ability to accomplish new things?’ Participants indicated their answers on a 7-point scale ranging from (1) not very much to (7) very much.

Collective action

The same 3-item scale as in Studies 1 and 2 was used.

Results and Discussion

The correlational matrix between variables is displayed in Table 5. As we can see, both dimensions of attachment are significantly related to self-expansion and collective action tendency.

In order to investigate predictors of collective action tendency, we conducted analysis of the linear regression. Results showed that place discovered (\( \beta = .44, p < .001 \)) and self-expansion (\( \beta = .31, p < .001 \)) are significant predictors of eagerness to engage in collective action.

To test whether self-expansion is a significant mediator, we conducted an analysis of mediation (see Figure 2). In this analysis, place discovered was entered as the predictor, self-expansion as the mediator and willingness to engage in collective action as the dependent variable. Using the SPSS macro provided by Preacher and Hayes (2008), we conducted
Table 5
Zero-Order Correlations With Pearson r in Study 3

<table>
<thead>
<tr>
<th></th>
<th>Pl: disc.</th>
<th>N-a</th>
<th>Self-exp</th>
<th>CA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pl inh.</td>
<td>.36***</td>
<td>-.54***</td>
<td>.25**</td>
<td>.20***</td>
</tr>
<tr>
<td>Pl disc.</td>
<td>-.23**</td>
<td></td>
<td>.25**</td>
<td>.51***</td>
</tr>
<tr>
<td>N-a</td>
<td></td>
<td>-.14</td>
<td></td>
<td>-.15</td>
</tr>
<tr>
<td>Self-exp</td>
<td></td>
<td></td>
<td></td>
<td>.35***</td>
</tr>
</tbody>
</table>

Note. Pl inh.= Place inherited; Pl disc = Place discovered; N-a = Non-attachment; Self-exp = Self expansion.

**p < .01. ***p < .001.

Table 6
Summary of Linear Regression Analysis or the Prediction: Collective Action Tendency, Study 3.

<table>
<thead>
<tr>
<th></th>
<th>B</th>
<th>t</th>
<th>VIF</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pl inh.</td>
<td>-.03</td>
<td>-.38</td>
<td>1.59</td>
</tr>
<tr>
<td>Pl disc.</td>
<td>.44***</td>
<td>6.22</td>
<td>1.19</td>
</tr>
<tr>
<td>N-a</td>
<td>.08</td>
<td>1.11</td>
<td>1.43</td>
</tr>
<tr>
<td>Self-exp</td>
<td>.31***</td>
<td>4.69</td>
<td>1.10</td>
</tr>
</tbody>
</table>

Note. Pl inh.= Place inherited; Pl disc = Place discovered; N-a = Non-attachment; Self-exp = Self expansion. Adjusted $R^2 = .36$.

***p < .001.

Figure 2. Model of place attachment discovered as a predictor of collective action tendency, with self-expansion as a mediator, in Study 3.
a bootstrapping test for the model (n boots = 10,000). As we expected, place discovered was related to self-expansion (b = .30), and participants who felt greater self-expansion reported a higher willingness to engage in collective action (b = .13). The bias-corrected bootstrap confidence interval for the indirect effect (b = .04) was above zero (.01 to .08).

In this study we replicated our previous findings that among place attachment dimensions, place discovered is the strongest predictor of acting on behalf of one's neighborhood. We were also able to show that people actively attached to a place experience stronger self-expansion thanks to interactions with others in their neighborhood.

**General Discussion**

In the three studies presented in this paper, we demonstrated the relationship between place attachment and collective action intentions. We also explored predictor of place attachment – the frequency of social interactions and a possible mediator of the link between place attachment and collective action, namely self-expansion. Thus, we showed that place discovered could be an important variable to consider when analyzing predictors of collective action for the community and improvement of the city. This extends previous research on place attachment, showing its role in willingness to be actively engaged on behalf of one's city and community. Place discovered, previously linked to a more agentic way of building ties with a place of living, turned out to be a significant predictor of collective action. Moreover, we confirmed the links between self-expansion and identity fusion with collective action tendency. As in previous studies among mass gatherers and activists (Besta et al., 2018), both of these constructs were also positively related to willingness to act on behalf of the group in the context of the city. We suggest that an emotional bond to a place may serve as a source of expansion of our sense of self. Mere social relations are probably not enough to develop a more extended sense of self. Rather similarly to mass gatherings, thanks to place attachment, daily social relations are transformed into the context, where common goals, such as protection and taking care of one's neighborhood, are actualized. We propose that opportunities for social interactions with neighbors could be grounds for place discovered, and this interest in the city may relate to self-expansion and self-development. Although previous studies linked self-expansion to self-efficacy, self-concept size and individual agency (Mattingly & Lewandowski, 2014; Mattingly et al., 2012), as well as collective action tendency (Besta et al., 2018; Besta & Zawadzka, 2017), we demonstrated the validity of this relationship in the context of community collective action directed toward improved quality of life in one's neighborhood. Furthermore, we surveyed participants using both an online questionnaire and field research, which heightened the ecological validity of the presented results.

Previous research on collective action shows that group-efficacy is important to understand collective action involvement. Our studies show that it is not only the development of beliefs that group effort could influence decision-makers that help in mobilizing people for collective action. Additionally developing both a sense of agency and communality, by be-
ing willingly and voluntarily engaged in exploration of one's city and interacting with people from neighborhood, could also mobilize citizens to act on behalf of this discovered collective.

We explored the role of constructs specifically related to the place one live in. Based on our studies, it is hard to argue that place discovered is related to actions for social change not related to the city. Thus, our results are confined to the context of city and action toward making one's city better.

In our research, we explore the role of the relatively stable construct of place attachment. What might help in understanding relations between ties to the neighborhood and collective action is the idea of opinion-based groups (McGarty, Bliuc, Thomas, & Bongiorno, 2009). Researchers highlight that shared opinion needs to be included in social identity. It is possible that people with goals related to discovering the city, are less likely to develop a fixed categorization of 'themselves as inhabitants of this particular city' (vs. other cities). This fixed social categorization should be more prevalent among people with strong place inherited, as they differentiate themselves form inhabitants of other cities based on tradition and family history. All these characteristics are definitely not very easy to change.

By discovering the city, people could form opinions about it and about ways in which their cities could be developed. Thus, it is possible that opinion-based collective action would be an important factor to consider when exploring the relation between attachment and collective action. Moreover, opinion-based groups could extend the social category (e.g. us, inhabitants of this city) and include people from various social categories (people who like this city because it's green, family friendly, has interesting history, etc.). Thus, future studies could include more detailed analyses of opinion-based groups in the context of place attachment.

Limitations and Future Research

This research has several limitations, including its correlational nature. We experimentally activated neither the place attachment nor the self-expansion feeling. Moreover, the self-expansion motive was not compared to other important motivational factors that could be linked to the collective action tendency (e.g., values and norms, expectancy and group-efficacy). In future research, it would be reasonable to include other possible mediators of the link between place attachment and collective action intention. Moreover, a longitudinal study on the proposed model may be important for showing how (and if) changes in social interactions influence people's attachment to the city and their perception of self-expansion, as well as whether these changes affect people's collective action intention.

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Competing Interests
One of the authors (TB) is a associate editor of SPB and guest editor of SPB’s special issue on “Activism – Radicalization – Protest”, but played no editorial role for this particular article or intervened in any form in the peer review procedure.

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Data Availability
The data analyzed in this paper are freely available via the PsychArchives repository. For further information see the "Supplementary Materials" section.

Supplementary Materials
Supplementary Materials for the present paper contain the data of studies 1–3.

Index of Supplementary Materials

References


