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Collective Psychological Ownership as a Driver of Zero-Sum and
Non-Zero-Sum Beliefs in Inter- and Intragroup Conflicts

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Table of Contents

Introduction	6
Theoretical Background	9
Concept and antecedents of collective psychological ownership	9
Behavioural outcomes of collective psychological ownership	11
Intergroup outcomes.....	11
Intragroup outcomes.....	12
Conflict appraisal	14
Zero-Sum Beliefs in Intergroup Conflicts	15
Non-Zero-Sum Beliefs in Intragroup Conflicts	18
The Study	20
Method	21
Participants	21
Procedure and Measures.....	21
Manipulation of collective psychological ownership	22
Manipulation of conflict context (intergroup vs. intragroup)	23
Measurement of zero-sum beliefs	23
Measurement of non-zero-sum beliefs	24
Measurement of stewardship behaviour	25
Results	25
Preliminary Analyses	25
Main Results	27

Zero-Sum Beliefs	27
Non-Zero-Sum Beliefs	28
Exploratory Analyses	29
Discussion	32
Interpretation of results	32
Limitations and future research	35
Implications and relevance of the study	38
References	40
Appendix A – Online Study	45
Appendix B – Use of AI	62

Abstract

Collective psychological ownership, the shared belief among group members that a target belongs to them collectively, has been shown to simultaneously promote intergroup conflict and intragroup cooperation (Martinović & Verkuyten, 2024). The present study examined whether these divergent behavioural outcomes could be partly explained by differences in conflict appraisal. Specifically, whether collective psychological ownership leads to zero-sum beliefs in intergroup conflict contexts and non-zero-sum beliefs in intragroup conflict contexts. In a 2×2 between-subjects online experiment ($N = 164$), collective psychological ownership (high vs. low) and conflict context (intergroup vs. intragroup) were manipulated using scenario-based vignettes involving a neighbourhood park. Zero-sum and non-zero-sum beliefs were assessed as outcome variables. Contrary to the hypotheses, neither the predicted interaction between collective psychological ownership and conflict context nor the simple effects on zero-sum and non-zero-sum beliefs were significant. Instead, participants reported consistently low zero-sum beliefs and higher non-zero-sum beliefs across all four conditions. These null results may reflect the relative stability of zero-sum and non-zero-sum beliefs as broader mindsets. Exploratory analyses showed that collective psychological ownership was positively related to stewardship behaviour. Moreover, zero-sum beliefs were negatively and non-zero-sum beliefs positively associated with stewardship, suggesting that how conflicts over collectively owned targets are framed and perceived might be relevant for individuals' willingness to maintain and protect shared resources.

Keywords: Collective psychological ownership, zero-sum beliefs, non-zero-sum beliefs, conflict appraisal, intergroup behaviour, intragroup behaviour, stewardship behaviour

Zusammenfassung

Kollektives psychologisches Eigentum, die geteilte Überzeugung von Gruppenmitgliedern, dass eine bestimmte Ressource ihnen gemeinsam gehört, kann sowohl zu Konflikten zwischen Gruppen als auch zu Kooperation innerhalb der Gruppe führen (Martinović & Verkuyten, 2024). Die vorliegende Studie untersucht, ob dies durch Unterschiede in der kognitiven Bewertung von Konflikten erklärt werden könnte. Konkret wurde untersucht, ob kollektives psychologisches Eigentum im Kontext von Konflikten zwischen Gruppen zu stärker ausgeprägten Nullsummenüberzeugungen und in Konflikten innerhalb der Gruppe zu stärker ausgeprägten Nicht-Nullsummenüberzeugungen führt. In einem 2×2 Between-Subjects online Experiment ($N = 164$) wurden kollektives psychologisches Eigentum (hoch vs. niedrig) und Konfliktkontext (zwischen Gruppen vs. innerhalb der Gruppe) mithilfe von Szenarien zu einem Nachbarschaftspark manipuliert. Nullsummen- und Nicht-Nullsummenüberzeugungen wurden als abhängige Variablen erhoben. Entgegen den Hypothesen zeigten sich weder die vorhergesagte Interaktion zwischen kollektivem psychologischen Eigentum und Konfliktkontext noch signifikante einfache Effekte auf Nullsummen- oder Nicht-Nullsummenüberzeugungen. Stattdessen berichteten die Teilnehmenden über alle vier Bedingungen hinweg konsistent niedrige Nullsummenüberzeugungen und höhere Nicht-Nullsummenüberzeugungen. Diese Nullbefunde könnten auf die relative Stabilität von Nullsummen- und Nicht-Nullsummenüberzeugungen hinweisen. Explorative Analysen zeigen außerdem, dass kollektives psychologisches Eigentum positiv mit Stewardship-Verhalten korrelierte. Zudem standen Nullsummenüberzeugungen in einem negativen und Nicht-Nullsummenüberzeugungen in einem positiven Zusammenhang mit Stewardship-Verhalten. Dies deutet darauf hin, dass die Art und Weise, wie Konflikte über wahrgenommenes

kollektives Eigentum interpretiert werden, mit der Bereitschaft zusammenhängen könnte, sich an deren Erhalt und Pflege zu beteiligen.

Introduction

In an increasingly interconnected world, different kinds of social groups frequently face the challenge of determining how to manage shared spaces, resources and other common goods. This often results in conflict, not only on international or national levels but also in more local contexts. Public controversies emerge over immigration and national belonging, when majority groups claim a country as “theirs”, as well as over local issues such as who is entitled to use or maintain community spaces like urban parks (Nijs et al., 2021, 2022, 2024). Over a variety of contexts, perceptions of ownership and belonging structure social interactions and group dynamics (Martinović & Verkuyten, 2024; Verkuyten & Martinovic, 2017).

A sense of ownership can exist both at the individual level, as the feeling that something is “mine” and at the group level as collective psychological ownership (Jami et al., 2021; Martinović & Verkuyten, 2024). Collective psychological ownership refers to the shared belief among members of a group that a specific target belongs to them (Pierce & Jussila, 2010). People can also experience ownership without the existence of formal property rights. For instance, when they feel that a park in their neighbourhood belongs to the residents in the area (Nijs et al., 2024).

Previous studies provide indications that collective psychological ownership simultaneously leads to positive intragroup outcomes and negative intergroup outcomes (Nijs et al., 2024). It is associated with perceived determination rights, the belief that ingroup members have the right to make decisions about the collectively owned target (Nijs et al., 2021). In an intergroup context, it can foster conflicts between groups when ownership is perceived as threatened by outgroup members. This often results in exclusionary behaviour toward outgroup members and opposition to shared ownership. Stronger endorsement of collective psychological ownership has been found to be associated with more negative

attitudes toward immigrants, a stronger behavioural tendency to exclude immigrants from one's country and anti-EU attitudes (Nijs et al., 2021, 2022). However, within groups it is associated with perceived responsibility and actions aimed at maintaining, protecting, or improving a collectively owned target (Nijs et al., 2024; Verkuyten & Martinovic, 2017). For example, people who feel collective psychological ownership for a local park tend to report stronger willingness to maintain and protect it (Nijs et al., 2024).

I argue that one driver of these different behavioural outcomes, intergroup conflict on one hand and cooperation within groups on the other hand, could be the cognitive appraisal of the situation as zero-sum or non-zero-sum. The concept of zero-sum and non-zero-sum beliefs can be understood as a belief system with both cognitive and affective components that shapes how individuals perceive the structure of social interactions (Davidai & Tepper, 2023; Esses et al., 1998). Zero-sum beliefs describe the assumption that one party's gain always goes together with another party's loss, meaning that resources or advantages are limited and must be competed for. Non-zero-sum beliefs reflect the perception that cooperation can result in beneficial outcomes for all involved parties (Davidai & Tepper, 2023). Collective psychological ownership implies a distinction between those who are perceived as legitimate owners (ingroup) and those who are not (outgroup), reinforcing an "us versus them" perspective. Interactions with outgroup members are more likely to be perceived as involving divergent interests and incompatible viewpoints, facilitating competitive and zero-sum interpretations of conflict (Tajfel & Turner, 1979; Verkuyten, 2025). Challenges to perceived collective ownership by outgroup members can be experienced as threats to exclusive determination rights, to the legitimacy of the group's ownership claim and even to the group identity, thereby also framing the situation as rather zero-sum (Davidai & Tepper, 2023; Nijs et al., 2021, 2022; Verkuyten, 2025; Verkuyten & Martinovic, 2017). Previous research suggests that zero-sum thinking is associated with

competitive intergroup orientations and undermines cooperation and compromise, even when this would objectively benefit all sides (Andrews Fearon & Götz, 2024; Davidai & Tepper, 2023). Zero-sum appraisals could therefore help explain why collective psychological ownership leads to exclusionary behaviour in intergroup conflict contexts. Within groups, however, there tends to be an expectation of agreement and a motivation to reach consensus, which makes cooperative and non-zero-sum interpretations of intragroup conflict more likely (Tajfel & Turner, 1979). A non-zero-sum mindset has already been shown to be associated with prosocial behaviour and cooperative conflict resolution and may therefore also help explain positive intragroup outcomes like stewardship behaviour and cooperation in the context of collective psychological ownership (Davidai & Tepper, 2023).

While there is already a growing body of research which has examined collective psychological ownership and zero-sum beliefs and their behavioural consequences, to my knowledge, it has not been systematically tested whether collective psychological ownership leads to a cognitive appraisal of conflicts as zero-sum or non-zero-sum. Furthermore, it is still an open question whether collective psychological ownership per se leads to an increase in zero-sum thinking or whether that differs between intergroup and intragroup conflicts. Understanding this is particularly relevant since many societies currently face conditions of social and economic strain, including high perceived inequality, inflation, financial vulnerability, or the presence of dominant political leaders, which tend to enhance zero-sum beliefs (Davidai & Tepper, 2023). Examining whether collective psychological ownership contributes to zero-sum appraisals of intergroup conflict is important, as such beliefs may further intensify intergroup tension and undermine collective success and effective responses to current societal and political challenges (Andrews Fearon & Götz, 2024).

Thus, the present study aims to examine whether collective psychological ownership leads to zero-sum appraisals of conflict and whether this effect differs between intragroup

and intergroup contexts. Specifically, it is expected that collective psychological ownership promotes zero-sum interpretations in intergroup conflict, whereas in intragroup contexts it may foster non-zero-sum thinking (Martinović & Verkuyten, 2024).

Theoretical Background

Ownership is an important social normative construct that plays a fundamental role in structuring life in societies. Assumptions and claims of ownership provide guidance and orientation in social interactions and relationships by giving information about who is entitled to use and make decisions about certain targets (Martinović & Verkuyten, 2024). Research on ownership in psychology emphasizes that ownership is not limited to formal property rights. Psychological ownership differs from legal ownership and refers to the subjective feeling that something is “mine”. It typically goes together with a sense of exclusive control and the right to decide what happens with what is perceived to be owned. Psychological ownership has both cognitive and affective components and reflects a perceived relationship between the self and a target of ownership, such that the target becomes psychologically connected to one’s identity (Pierce et al., 2001).

Concept and antecedents of collective psychological ownership

Psychological ownership not only exists at the individual level but can also be experienced on a group level: collective psychological ownership refers to a shared feeling among group members that a specific target belongs to them collectively (Pierce & Jussila, 2010). It is a distinct construct from group identity, but it is closely connected to it, because groups can also define themselves over what they perceive to own (Martinović & Verkuyten, 2024; Verkuyten, 2025; Verkuyten & Martinovic, 2017). Collective psychological ownership is widespread and can emerge in various contexts including neighbourhoods, organizations, regions or countries. It can be experienced in relation to diverse targets like territories, community places, cultural traditions, symbols, objects or ideas. For example, people may

feel that a local park belongs to their neighbourhood, perceive cultural traditions as belonging to particular social or ethnic groups, or believe that a country belongs to its citizens (Martinović & Verkuyten, 2024; Verkuyten & Martinovic, 2017). While being an extension of psychological ownership on an individual level to the group level, collective psychological ownership does not arise automatically as the sum of individual ownership feelings towards the same target but is socially constructed through group interactions and experiences. It emerges when group members come to recognize that they jointly exercise control over the target of ownership, share intimate knowledge of it, feel associated with it and/or have invested time, effort or resources in it (Pierce et al., 2001; Pierce & Jussila, 2010). These experiences must be understood as shared and interdependent, meaning that each group member perceives actions and their outcomes regarding the target of ownership as the result of collective instead of individual effort. The stronger this collective recognition of having acted together, the more likely a shared sense of collective ownership emerges (Pierce et al., 2001; Pierce & Jussila, 2010).

Collective psychological ownership constitutes a social normative claim about how relationships between groups should be structured with regard to perceived targets of ownership. It carries normative implications about what is considered legitimate, appropriate, or justified with regard to the owned target (Martinović & Verkuyten, 2024; Verkuyten, 2025; Verkuyten & Martinovic, 2017). Three principles are particularly relevant in the context of collective psychological ownership: autochthony, investment, and formation (Nooitgedagt et al., 2022). The principle of autochthony emphasizes first arrival or possession and implies that those who were “there first” are entitled to ownership. The investment principle highlights the role of effort and resources invested in creating, maintaining, or developing a target as a basis for ownership claims. The formation principle refers to the constitutive role of a target in shaping a group’s collective identity, suggesting

that ownership is justified when a group's identity has been formed by and through the target. For example, a group may claim ownership over a territory because it was the first to settle there, because it has invested time and effort in maintaining it, or because it is seen as central to the group's history and identity (Nooitgedagt et al., 2022).

Behavioural outcomes of collective psychological ownership

A growing body of research demonstrates that collective psychological ownership can have different behavioural consequences depending on the social context. It can simultaneously promote positive outcomes like prosocial behaviour and cooperation within groups while fostering negative outcomes like exclusion and conflict in intergroup relations (Martinović & Verkuyten, 2024; Nijs et al., 2024).

Intergroup outcomes

With social normative implications connected to ownership claims comes the possibility of them being challenged or violated. A central aspect of collective psychological ownership is a sense of control and possessiveness over the owned target including the perceived right to decide who is allowed to use or access it and how. When these perceived determination rights are questioned or challenged, group members may fear losing control over what they perceive as collectively theirs. This experience is referred to as collective ownership threat. It reflects concerns about infringements of exclusive control and gatekeeping rights rather than realistic competition over objectively scarce resources or symbolic threats to group values (Martinović & Verkuyten, 2024; Verkuyten, 2025; Verkuyten & Martinovic, 2017). Several studies show that in intergroup contexts, collective psychological ownership tends to be associated with conflictual outcomes. In particular, research indicates that feelings of collective psychological ownership lead to perceived determination rights and/ or collective ownership threat, which in turn predict the exclusion of outsiders from what is perceived to be owned by a specific ingroup (Nijs et al., 2021,

2022, 2024). Importantly, such exclusionary behaviour is often not experienced as unfair or discriminatory but rather as a legitimate consequence (Nijs et al., 2021; Verkuyten & Martinovic, 2017).

Consistent with this reasoning, collective psychological ownership has been shown to fuel intergroup tensions and conflicts by implying boundaries between owners and non-owners (Nijs et al., 2021; Verkuyten & Martinovic, 2017). Across several European cultural contexts, stronger endorsement of collective ownership has been linked to more negative attitudes toward immigrants, a greater willingness to exclude immigrants from one's country or neighbourhood and greater opposition to further European integration (Nijs et al., 2021, 2022; Toruńczyk-Ruiz & Martinović, 2020). Political rhetoric that stresses ownership claims such as “this country is ours” and “we should be in control” illustrates how ownership language is used to justify restrictive immigration policies and to mobilize public support for exclusion (Nijs et al., 2021; Verkuyten & Martinovic, 2017). Evidence from conflict regions further indicates that strong ingroup ownership beliefs over contested territories are associated with lower support for reconciliation and joint decision-making, suggesting that strong collective psychological ownership can inhibit peace-building efforts (Storz et al., 2020).

Taken together, these findings illustrate that in intergroup contexts, collective psychological ownership is systematically associated with exclusionary attitudes and behaviour, opposition to sharing and conflict (Martinović & Verkuyten, 2024; Nijs et al., 2021, 2022, 2024; Verkuyten & Martinovic, 2017).

Intragroup outcomes

While collective psychological ownership in intergroup contexts often results in outcomes like exclusion and conflict, it tends to promote positive outcomes like cooperation

and prosocial behaviour within groups (Jami et al., 2021; Martinović & Verkuyten, 2024; Nijs et al., 2024; Verkuyten & Martinovic, 2017).

Research indicates that collective psychological ownership is not only associated with perceived determination rights but also with perceived group responsibility toward the owned target. This sense of responsibility or even perceived obligation stems from the belief that people should take care of what they own and can lead to experiencing normative pressure from other owners to actively contribute to protect, maintain or improve the collectively owned target, for example by investing time, energy or resources into it. Such behaviour is referred to as stewardship behaviour (Martinović & Verkuyten, 2024; Nijs et al., 2024; Pierce & Jussila, 2011; Verkuyten & Martinovic, 2017).

On the individual level, research shows that a sense of psychological ownership of public natural areas motivates intentions to protect the area and act against exploitation (Preston & Gelman, 2020). On the collective level, a cross-sectional study in a Dutch sample shows that collective psychological ownership of the country positively predicted stewardship intentions like donating to preserve Dutch landscapes via perceived group responsibility (Nijs et al., 2024). Further correlational studies show that residents' sense of neighbourhood ownership predicts higher participation in local prosocial initiatives and community maintenance (Nijs et al., 2024; Toruńczyk-Ruiz & Martinović, 2020). Moreover, an experimental study demonstrates that inducing collective psychological ownership over an imaginary neighbourhood park increases perceived group responsibility, which indirectly strengthens intentions to engage in stewardship behaviour such as picking up trash, cleaning the park and investing money in repairs (Nijs et al., 2024).

Overall, these results show that collective psychological ownership can bind group members together, define responsibilities and boost commitment and collective action (Verkuyten & Martinovic, 2017).

Conflict appraisal

The present thesis assumes that one key driver of the divergent consequences of collective psychological ownership, intergroup conflict on the one hand and ingroup cooperation on the other, is how conflicts are cognitively appraised. Specifically, whether people perceive the situation as a rather zero-sum or non-zero-sum. It is expected that collective psychological ownership would lead to zero-sum beliefs in intergroup conflicts but to non-zero-sum beliefs in intragroup conflicts. The distinction between zero-sum and non-zero-sum beliefs is rooted in game theory, which studies decision-making and behaviour in competitive environments and suggests that how people behave in complex social interactions depends on whether these interactions are perceived as zero-sum or non-zero-sum (von Neumann & Morgenstern, 1947). Zero-sum beliefs capture the subjective view that one party's gains necessarily come at another party's expense whereas non-zero-sum beliefs reflect the expectation that social interactions can be structured so that outcomes are mutually beneficial rather than strictly competitive (Burgstaller & Florack, 2025; Davidai & Tepper, 2023). People can apply such zero-sum and non-zero-sum beliefs across different levels of social relations, including interpersonal ones, relations between groups or international relations, which makes them potentially relevant in the context of collective psychological ownership as well (Davidai & Tepper, 2023). Nijs et al. (2021) showed that a sense of collective ownership of the country predicted anti-immigrant and anti-EU attitudes among British participants, which in turn were associated with voting to leave the EU in the 2016 referendum. The strong belief that the country belongs to its citizens and the narrative of having to regain exclusive control could have framed being part of the EU as a zero-sum situation in which gains for outgroups like other European countries or for immigrants necessarily come at the expense of British citizens. However, the same situation could have also been perceived as non-zero-sum. People might also experience collective psychological

ownership at the level of the European community, perceiving fellow Europeans and immigrants as part of the same ingroup. From this perspective, pooling resources and decision-making within the EU may be viewed as ultimately benefiting all parties involved, rather than representing a loss of national control. A sense of collective psychological ownership may therefore influence how such conflicts are cognitively appraised. This appraisal as zero-sum or non-zero-sum may also depend on whether the conflict occurs with an outgroup or within the group of “co-owners”. Whether ownership-related conflicts are perceived as zero-sum or non-zero-sum may in turn help explain the divergent behavioural consequences of collective psychological ownership outlined above (Martinović & Verkuyten, 2024; Nijs et al., 2021, 2024).

Zero-Sum Beliefs in Intergroup Conflicts

The present study argues that collective psychological ownership is likely to promote zero-sum appraisals specifically in intergroup conflict contexts. Zero-sum beliefs result from intrapersonal and situational causes that elicit threat and create a real or imagined sense of resource scarcity (Davidai & Tepper, 2023). Drawing on the background of resource scarcity, the instrumental model of group conflict proposes that perceptions of limited resources, combined with the salience of a potentially competitive outgroup, foster a sense of group competition. This competition is typically construed in zero-sum terms, such that gains for the outgroup are seen as losses for the ingroup (Esses et al., 1998, 2001). Research on realistic threat shows that intergroup competition over tangible, scarce resources like jobs, housing, or welfare is often experienced as zero-sum (Esses et al., 1998, 2001). When collective psychological ownership is experienced, collective ownership threat can also imply such a perception of resource scarcity by framing determination and control rights over targets of ownership as limited and non-shareable, which is a key driver of negative

intergroup attitudes and motivates efforts to protect ingroup interests (Esses et al., 1998; Verkuyten & Martinovic, 2017).

Social Identity Theory and Self-Categorization Theory further clarify why collective psychological ownership could lead to zero-sum beliefs particularly in intergroup conflicts. Since collective psychological ownership is a group-level phenomenon involving a shared sense that “this belongs to us,” individuals must perceive themselves as part of a collective “we” in the first place, which Self-Categorization Theory refers to as the “group self”. When the group self becomes salient, thinking becomes socially structured, with the group serving as the primary frame of reference for interpreting situations, prioritizing interests and guiding behaviour (Tajfel & Turner, 1979; Turner et al., 1987). Individuals are motivated to maintain or enhance a positive social identity, which can be achieved through favourable comparisons between the ingroup and relevant outgroups. This motivation for positive distinctiveness often manifests in discrimination and negative attitudes against outgroup members (Tajfel & Turner, 1979). Since collective ownership beliefs are often tied to group identity, perceptions of threat and competition between groups can be intensified, especially when group boundaries are salient. Challenges to the group’s ownership claims may not only be seen as disputes over determination rights but also as threats to the group’s status and identity, which can foster defensive reactions and strained intergroup relations (Verkuyten, 2025; Verkuyten & Martinovic, 2017). Interactions with outgroup members are therefore more likely to be perceived as involving divergent interests and incompatible viewpoints, making competitive and zero-sum interpretations of intergroup conflict more likely (Tajfel & Turner, 1979; Verkuyten, 2025).

Additional empirical support for the link between collective psychological ownership and zero-sum beliefs comes from studies on territorial ownership which show that people feel a sense of ingroup ownership over their country across diverse national contexts and that this

feeling is particularly strong in societies marked by historical or ongoing conflict. At the same time, perceived ownership of a rival outgroup tends to be low and even negatively related to ingroup ownership, which points to underlying zero-sum beliefs: the more “we” are seen as the rightful owners of “our” country, the less ownership can be conceded to the rival outgroup (Martinović & Verkuyten, 2024).

Further research indicates that zero-sum beliefs have far-reaching consequences in intergroup contexts. They were found to be associated with a variety of negative outcomes like anti-immigrant sentiment, prejudice and discrimination or resistance to egalitarian policies and social change (Davidai & Ongis, 2019; Davidai & Tepper, 2023; Esses et al., 1998, 2001). Studies show that majority-group members who hold zero-sum views are more likely to misperceive diversity or admission policies as harming their group even when these policies are objectively beneficial to everyone (Brown & Jacoby-Senghor, 2022). Consistent with this, zero-sum beliefs predict greater perceived threat in diverse environments, more negative attitudes toward diversity initiatives, lower support for affirmative action and stronger opposition to system-challenging collective action (Ballinger et al., 2024; Stefaniak et al., 2020). Zero-sum beliefs can even undermine cooperation in situations where it is crucial. For instance, people’s zero-sum beliefs have been found to predict lower support for and cooperation with public health measures during the COVID-19 pandemic, even when such cooperation would benefit everyone involved (Andrews Fearon & Götz, 2024). These findings suggest that zero-sum appraisals are also likely to underlie the exclusionary behaviour toward outgroup members that has been observed in the context of collective psychological ownership (Nijs et al., 2022). Accordingly, the present study argues that collective psychological ownership may influence zero-sum appraisals because it emphasizes group boundaries and exclusive determination rights over owned targets and frames conflict situations as contests over limited, non-shareable entitlements. Importantly, this effect is

expected to be context-dependent, emerging specifically in intergroup conflict contexts (Martinović & Verkuyten, 2024; Verkuyten, 2025; Verkuyten & Martinovic, 2017). Hence, the following hypotheses are proposed:

H1: The effect of collective psychological ownership on conflict appraisals (zero-sum vs. non-zero-sum) will differ depending on the conflict context (intergroup vs. intragroup).

H2a: In an *intergroup* conflict context, high collective psychological ownership will lead to higher *zero-sum beliefs* compared to low collective psychological ownership.

H2b: In an *intragroup* conflict context, high collective psychological ownership will *not* lead to higher *zero-sum beliefs* compared to low collective psychological ownership.

Non-Zero-Sum Beliefs in Intragroup Conflicts

While previous research has already connected collective psychological ownership with zero-sum appraisals in intergroup contexts, to my knowledge it has paid little attention to how collective ownership shapes conflict perceptions within the ingroup. In particular, the question arises whether collective psychological ownership always promotes zero-sum beliefs, or whether in intragroup contexts, it can also foster non-zero-sum beliefs, which refer to the expectation that disagreements over how to manage what is perceived to be collectively owned can be resolved in ways that ultimately benefit all parties involved (Crocker et al., 2017). Social identity theory proposes that individuals strive to achieve and maintain a positive social identity, which often leads to ingroup bias and ingroup favouritism. Within the ingroup, individuals tend to expect shared perspectives and agreement and are more likely to be motivated to reach consensus (Tajfel & Turner, 1979; Turner et al., 1987). When collective psychological ownership is high, it may reinforce the preference for cooperative solutions that preserve group cohesion and benefit all members, aligning with non-zero-sum conflict appraisals (Tajfel & Turner, 1979; Turner et al., 1987). Furthermore, non-zero-sum beliefs are conceptualised as a central component of an ecosystem perspective on social

relations (Crocker et al., 2017). This perspective incorporates that people understand themselves as embedded in relational systems in which their connections with others and with the wider group or society serve to meet the needs of all involved, including their own (Crocker & Canevello, 2015). This provides an additional basis for understanding how collective psychological ownership may promote non-zero-sum appraisals specifically within the ingroup. When group members experience strong collective ownership over a target, they feel collectively responsible for how it is used, maintained or developed. Within the ingroup, this sense of shared responsibility can make disagreements and conflicts appear as internal negotiations about how to best serve common interests concerning the target rather than as a zero-sum competition (Martinović & Verkuyten, 2024; Nijs et al., 2024; Verkuyten, 2025).

Empirically, non-zero-sum beliefs overall have been associated with situations that involve possibilities for collaboration and cooperation (Davidai & Tepper, 2023). For example, non-zero-sum beliefs have been shown to predict a greater willingness to make sacrifices for collective goals such as environmental protection, partly because they are associated with more positive expectations about the outcomes of such sacrifices (Burgstaller & Florack, 2025). Furthermore, research on racial inequality shows that viewing race relations as non-zero-sum increases support for policies that address racial inequality (Stefaniak et al., 2020). Similarly, studies on diversity initiatives defined non-zero-sum beliefs as win-win beliefs that capture the idea that diversity initiatives can benefit all racial groups (Ballinger et al., 2024). Win-win beliefs are associated with less identity threat, more positive attitudes towards diversity efforts and greater support for affirmative action policies, suggesting that non-zero-sum appraisals make it easier for majority-group members to engage constructively with inclusion-oriented changes (Ballinger et al., 2024). These findings point to the possibility that non-zero-sum appraisals may play a similar role in fostering cooperative intragroup outcomes like stewardship behaviour that has been observed in the

context of collective psychological ownership (Nijs et al., 2024). The present thesis therefore argues that high collective psychological ownership should encourage group members to interpret intragroup conflicts over collectively owned targets as situations in which mutually acceptable solutions are possible and where all parties can ultimately benefit from cooperative problem solving and compromises (Martinović & Verkuyten, 2024; Verkuyten, 2025). Accordingly, the present study proposes the following hypotheses:

H3a: In an *intragroup* conflict context, high collective psychological ownership will lead to higher *non-zero-sum beliefs* compared to low collective psychological ownership.

H3b: In an *intergroup* conflict context, high collective psychological ownership will not lead to higher *non-zero-sum beliefs* compared to low collective psychological ownership.

The Study

To examine whether collective psychological ownership leads to zero-sum or non-zero-sum appraisals of conflict and whether this effect differs between intergroup and intragroup contexts, the present study employed a two (collective psychological ownership: high vs. low) $\times$ two (conflict context: intergroup vs. intragroup) between-subjects online experiment implemented on Unipark (Tivian XI GmbH, 2026). Collective psychological ownership (high vs. low) and conflict context (intergroup vs. intragroup) were manipulated using scenario-based vignettes involving a neighbourhood park, adapted from Nijs et al. (2022, 2024). Zero-sum and non-zero-sum beliefs were assessed as outcome variables. Additionally, stewardship behaviour was measured for exploratory purposes. The study was preregistered on the AsPredicted platform prior to data collection to ensure transparency in the research process (<https://aspredicted.org/86ty3v.pdf>).

Method

Participants

Participants were recruited informally using convenience sampling via online channels. The survey link was distributed through the researcher's personal networks, social media platforms and SurveyCircle, targeting German-speaking adults over the age of 18. Participants who did not provide consent or indicated that they were under 18 years of age were screened out of the study.

An a priori power analysis was conducted using G*Power version 3.1.9.7 for a 2×2 between-subjects ANOVA testing an interaction effect. The required minimum sample size to detect a medium interaction effect ($f = 0.25$) at $\alpha = .05$ with adequate power of .80 was 128 participants (32 per group).

As pre-registered, participants who failed either of the two attention checks (one after the collective psychological ownership manipulation and one after the conflict scenario) or did not complete the survey were excluded from the analyses. No additional outlier criteria were applied. Data collection took place in February 2026 and the final analysed sample consisted of 164 participants of whom 61 % identified as female, 37 % as male and 2 % as diverse. The average age was 30.28 years ($SD = 10.34$, range = 20–64). Regarding education, 74 % of participants reported having a university degree or higher, indicating that the sample was highly educated. Participants rated their subjective socioeconomic status on average above the midpoint ($M = 6.40$, $SD = 1.49$) on a 10-rung ladder.

Procedure and Measures

When opening the survey link, participants first saw an information and consent page describing the aims of the study and data protection policies. They were informed that participation was voluntary and that they could quit at any time without consequences. After providing consent, participants answered a brief demographic section including questions

about gender, age and education. Furthermore, subjective socioeconomic status was assessed using a 10-rung ladder on which participants indicated where they would place themselves relative to other people in their country in terms of money, education and job prestige (Adler et al., 2000). Participants were then instructed that on the following pages, they would read short scenarios and should imagine the situations as vividly as possible.

Manipulation of collective psychological ownership

Collective psychological ownership has been manipulated using a scenario-based manipulation adapted from Nijs et al. (2022, 2024). The scenario described a neighbourhood park as target of collective psychological ownership since it provides a concrete context in which feelings that a place is collectively owned by a group can emerge (Nijs et al., 2022, 2024). In the high collective psychological ownership condition, participants had to read the following scenario:

Imagine there is a small park in your street. It used to be just a piece of ground where nothing happened, but the municipality has given it to the neighbourhood and you and your neighbours have tidied it up and put a picnic table there (see photo). As a neighbourhood, you have been spending a lot of time there for several years now, using the park for gatherings, relaxation, or sports. You really have the feeling that it is ‘your park’ and have even given it the name ‘our green park’.

In this way, several principles of collective psychological ownership were addressed, including collective investment in the park and its role as a shared place that residents jointly use and identify with (Martinović & Verkuyten, 2024). In the low collective psychological ownership control condition, the same park was described without collective ownership cues. It was simply mentioned that the municipality has tidied it up and put up a picnic table (Nijs et al., 2024). Participants in both conditions were shown the same image of a park with a picnic table, which was generated using ChatGPT.

To enhance mental simulation and to ensure participants had engaged with the scenario, they were then asked to briefly describe the imagined park in an open text field. This question also served as an attention check and was followed by a two-item manipulation check (“If I think about the park, I really feel that it is owned by us, neighbours.”; “I have a strong feeling that this park belongs to us, neighbours”) rated on a 7-point Likert scale from 1 = *strongly disagree* to 7 = *strongly agree* (Nijs et al., 2024). The two items showed excellent internal consistency ($\alpha = .94$) and were averaged into a mean score used for the manipulation check analysis.

Manipulation of conflict context (intergroup vs. intragroup)

Following the collective psychological ownership manipulation, participants were presented with a conflict scenario adapted from Nijs et al. (2022) involving the same park. The conflict concerned different proposals regarding the future use of the park. While some residents suggested creating more seating areas so that the park could be used as a place for relaxation, others advocated expanding the space for sports and installing fitness equipment. The situation was framed either as an intergroup conflict, in which residents from another neighbourhood are involved and express different preferences regarding the use of the park, or as an intragroup conflict, in which members of the same neighbourhood hold different views on how the park should be used. After reading the conflict scenario, participants again completed a short open-ended question describing the conflict, which also served as an attention check and as an opportunity to strengthen the imagination of the situation.

Measurement of zero-sum beliefs

Zero-sum beliefs were measured with seven items adapted from Andrews Fearon and Götz (2024) and Różycka-Tran et al. (2015) referring to the presented conflict scenario. Table 1 shows the items as used in the intergroup condition. For the intragroup condition, wording was slightly adapted (see Appendix A). All items were answered on a seven-point

Likert scale ranging from 1 = *strongly disagree* to 7 = *strongly agree*. They showed good internal consistency ($\alpha = .86$) and were averaged to create a composite mean score. Two items were reverse-coded.

Table 1

Zero-Sum Beliefs

Item	Text
1	In this conflict, the success of one group means failure for the other group.
2	In this conflict, when one group wins, the other group must lose.
3	In this conflict, the interests of both groups are incompatible.
4	In this conflict, one group loses when it does a lot for the other group.
5	This conflict is like a tennis match: one group can only win when the other group loses.
6	In this conflict, it does not necessarily mean that one group loses when the other group wins. (reverse-coded)
7	In this conflict, the success of one group is not the failure of the other group. (reverse-coded)

Note. Items were presented in German.

Measurement of non-zero-sum beliefs

Non-zero-sum beliefs were measured with eight items adapted from Burgstaller and Florack (2025), also referring to the presented conflict scenario. Table 2 shows the items as used in the intergroup condition. For the intragroup condition, wording was slightly adapted (see Appendix A). All items were answered on a seven-point Likert scale ranging from 1 = *strongly disagree* to 7 = *strongly agree*. They showed excellent internal consistency ($\alpha = .93$) and were averaged to create a composite mean score.

Table 2*Non-Zero-Sum Beliefs*

Item	Text
1	In this conflict, there do not necessarily have to be winners and losers.
2	In this conflict, it is possible to find a good solution for both groups.
3	In this conflict, the outcome can be satisfactory for both groups.
4	When a difficult situation arises between the two groups, it is possible to find a good solution for both sides.
5	When an agreement is reached in this conflict, it can be advantageous for both groups.
6	Differences of opinion in this conflict can be resolved in a way that benefits both groups.
7	The outcome of this conflict can be a win-win situation for both groups.
8	In this difficult situation, it is possible to find solutions that benefit both groups.

Note. Items were presented in German.

Measurement of stewardship behaviour

For exploratory purposes, participants rated the likelihood to engage in stewardship behaviour using three items adapted from Nijs et al. (2024). They were asked to imagine that their preferred position in the conflict, which was using the park for sports and installing fitness equipment in all conditions, did not prevail. They then indicated how likely it would be that they and their neighbours would collectively maintain the park, pick up litter and contribute money for a new picnic table if needed. Responses were provided on a scale ranging from 0%= definitely not to 100%= definitely (Nijs et al., 2024). The survey ended with a debriefing explaining the research aims and providing space for comments.

Results**Preliminary Analyses**

All analyses were conducted using JASP Version 0.96 (JASP Team, 2026). Prior to testing the hypotheses, descriptive statistics for all study variables were inspected. Table 3

shows Pearsons' correlations that were computed to examine associations between perceived collective psychological ownership (measured via the two manipulation check items), zero-sum beliefs, non-zero-sum beliefs and stewardship behaviour. Collective psychological ownership was not significantly related to zero-sum beliefs ($r = -.02, p = .845$) or non-zero-sum beliefs ($r = .08, p = .293$). However, it showed a small but significant positive correlation with stewardship behaviour ($r = .20, p = .012$). Zero-sum beliefs were strongly and negatively correlated with non-zero-sum beliefs ($r = -.69, p < .001$). Zero-sum beliefs were also negatively associated with stewardship behaviour ($r = -.18, p = .023$) while non-zero-sum beliefs were positively associated with it ($r = .23, p = .004$).

Table 3*Correlations among variables*

Variables	<i>M</i>	<i>SD</i>	CPO	ZSBs	NZSBs	STB
CPO	4.44	1.52	-			
ZSBs	2.65	1.06	-.02	-		
NZSBs	5.79	0.95	.08	-.69***	-	
STB	51.75	25.83	.20*	-.18*	.23**	-

Note. $N = 164$; M = mean; SD = standard deviation; STB = stewardship behaviour; CPO = collective psychological ownership (mean manipulation check items); NZSBs = non-zero-sum beliefs; ZSBs = zero-sum beliefs. * $p < .05$, ** $p < .01$, *** $p < .001$

Manipulation check analysis showed that as expected, participants in the high collective psychological ownership condition reported a significantly stronger sense that the park belonged to their neighbourhood ($M = 4.83, SD = 1.40$) than participants in the low ownership condition ($M = 4.04, SD = 1.53$), $t(162) = -3.44, p < .001, d = -0.54$. Thus, manipulation of collective psychological ownership was successful.

Main Results

To test the hypotheses, two separate 2×2 factorial ANOVAs were conducted with collective psychological ownership (high vs. low) and conflict context (intergroup vs. intragroup) as between-subjects factors. Levene's tests indicated no violations of homogeneity of variance for zero-sum beliefs ($p = .697$) and non-zero-sum beliefs ($p = .490$). Statistical significance for all analyses was evaluated at $\alpha = .05$.

Zero-Sum Beliefs

I proposed that the effect of collective psychological ownership on zero-sum beliefs would differ depending on the conflict context (H1), such that high collective psychological ownership would lead to higher zero-sum beliefs in the intergroup conflict condition (H2a), but not in the intragroup conflict condition (H2b). However, the first ANOVA with zero-sum beliefs as dependent variable revealed no significant main effect of collective psychological ownership ($F(1, 160) = 0.54, p = .463, \eta^2_p = .003$) and no main effect of conflict context ($F(1, 160) = 0.30, p = .583, \eta^2_p = .002$). Importantly, the predicted interaction between collective psychological ownership and conflict context was not significant, $F(1, 160) < 0.01, p = .974, \eta^2_p < .001$. Planned simple effects analyses examined the effect of collective psychological ownership separately within each conflict context. Contrary to expectations, collective psychological ownership did not significantly influence zero-sum beliefs in the intergroup conflict condition ($F(1, 160) = 0.26, p = .613$). Similarly, in the intragroup conflict condition, collective psychological ownership did not significantly influence zero-sum beliefs, $F(1, 160) = 0.28, p = .595$. To test Hypothesis 2b, which proposed no difference in zero-sum beliefs between high and low collective psychological ownership in the intragroup conflict condition, a Bayesian independent samples t-test was conducted. The analysis yielded a Bayes factor of $BF_{10} = 0.27$. According to established guidelines this provides moderate evidence for the absence of an effect, therefore supporting Hypothesis 2b (Van

Doorn et al., 2021). Descriptive statistics show that participants reported relatively low zero-sum appraisals of the conflict across all four conditions (see Table 4).

Table 4

Means and standard deviation of zero-sum beliefs by collective psychological ownership and conflict context

Collective psychological ownership	Conflict context	<i>N</i>	<i>M</i>	<i>SD</i>
High	Intergroup	42	2.752	0.994
	Intragroup	41	2.666	1.078
Low	Intergroup	43	2.635	1.172
	Intragroup	38	2.538	0.999

Note. *M* = mean; *SD* = standard deviation. Items were answered on a 7-point Likert scale. No significant differences were found between conditions.

Non-Zero-Sum Beliefs

I further hypothesized that high collective psychological ownership would lead to higher non-zero-sum beliefs in the intragroup conflict condition (H3a), but not in the intergroup conflict condition (H3b). However, a second 2×2 ANOVA examining non-zero-sum beliefs as the dependent variable revealed neither a significant main effect of collective psychological ownership ($F(1, 160) = 0.04, p = .836, \eta_p^2 < .001$) nor a significant main effect of conflict context ($F(1, 160) = 0.32, p = .573, \eta_p^2 = .002$). The proposed interaction between collective psychological ownership and conflict context was also not significant, $F(1, 160) = 0.01, p = .928, \eta_p^2 < .001$. Planned simple effects analyses showed that contrary to expectations, collective psychological ownership did not significantly affect non-zero-sum beliefs in the intragroup conflict condition, $F(1, 160) = 0.04, p = .836$. Similarly, collective psychological ownership did not significantly influence non-zero-sum beliefs in the intergroup conflict condition, $F(1, 160) = 0.01, p = .932$. To test Hypothesis 3b, which proposed no difference in non-zero-sum beliefs between high and low collective

psychological ownership in the intergroup conflict condition, a Bayesian independent samples t-test was conducted. The analysis yielded a Bayes factor of $BF_{10} = 0.23$. According to established guidelines this provides moderate evidence for the absence of an effect, therefore supporting Hypothesis 3b (Van Doorn et al., 2021). Descriptive statistics show that participants reported rather high non-zero-sum beliefs across all conditions (see Table 5).

Table 5

Means and standard deviation of non-zero-sum beliefs by collective psychological ownership and conflict context

Collective psychological ownership	Conflict context	<i>N</i>	<i>M</i>	<i>SD</i>
High	Intergroup	42	5.756	0.973
	Intragroup	41	5.854	0.860
Low	Intergroup	43	5.738	1.047
	Intragroup	38	5.809	0.918

Note. *M* = mean; *SD* = standard deviation. Items were answered on a 7-point Likert scale. No significant differences were found between conditions.

Exploratory Analyses

Given that the present thesis proposed that zero-sum and non-zero-sum beliefs may explain divergent behavioural outcomes of collective psychological ownership in different social contexts, stewardship behaviour was examined as an exploratory behavioural outcome in the present study (Nijs et al., 2024). As reported in the preliminary analyses, collective psychological ownership showed a positive correlation with stewardship behaviour ($r = .20, p = .012$), suggesting that a stronger sense of collective psychological ownership was associated with greater willingness to engage in stewardship behaviour. Zero-sum beliefs were negatively correlated with stewardship behaviour ($r = -.18, p = .023$), indicating that stronger zero-sum perceptions were linked to lower willingness to engage in stewardship behaviour. In contrast, non-zero-sum beliefs were positively correlated with it ($r = .23, p =$

.004), suggesting that stronger non-zero-sum beliefs were associated with a higher willingness to engage in stewardship behaviour.

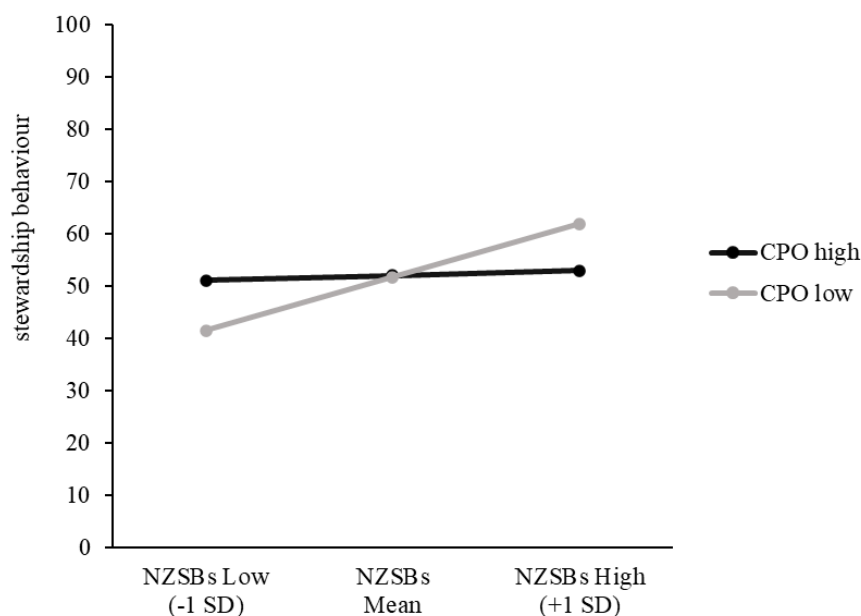
For exploratory purposes, a 2×2 factorial ANOVA was conducted with collective psychological ownership (high vs. low) and conflict context (intergroup vs. intragroup) as between-subjects factors and stewardship behaviour as the dependent variable. The analysis revealed no significant main effect of conflict context, $F(1, 160) = 1.59, p = .209, \eta^2_p = .010$, indicating that stewardship behaviour did not differ significantly between intergroup and intragroup conflict contexts. Furthermore, there was no significant main effect of collective psychological ownership, $F(1, 160) = 0.01, p = .934, \eta^2_p < .001$, suggesting that participants in the high and low ownership conditions did not differ in their reported stewardship behaviour. The interaction between collective psychological ownership and conflict context was also not significant, $F(1, 160) = 0.19, p = .662, \eta^2_p = .001$.

It was further investigated whether the effect of collective psychological ownership on stewardship behaviour is moderated by participants' non-zero-sum beliefs. For this purpose, a moderation analysis was conducted using classical process model 1 in JASP. Collective psychological ownership was coded as a categorical predictor (high = 1, low = 0) and entered as the independent variable. Stewardship behaviour was entered as the dependent variable and non-zero-sum beliefs as the continuous moderator. There was no significant main effect of collective psychological ownership on stewardship behaviour, $b = 0.33, SE = 3.85, p = .931$, but a significant main effect of non-zero-sum beliefs on stewardship behaviour, $b = 10.78, SE = 2.80, p < .001$. Importantly, the interaction between collective psychological ownership and non-zero-sum beliefs was significant, $b = -9.80, SE = 4.09, p = .017$, suggesting that the effect of collective psychological ownership on stewardship behaviour varied as a function of participants' non-zero-sum beliefs. As illustrated in Figure 1, the interaction followed a crossover pattern, such that collective psychological ownership was

positively associated with stewardship behaviour at low levels of non-zero-sum beliefs but negatively at high levels. Specifically, participants high in collective psychological ownership showed relatively stable stewardship behaviour across all levels of non-zero-sum beliefs, whereas stewardship behaviour among participants low in collective psychological ownership increased with higher non-zero-sum beliefs. Accordingly, simple effects analyses showed that at low levels of non-zero-sum beliefs, collective psychological ownership showed a positive, but non-significant effect on stewardship behaviour, $b = 9.28$, $SE = 5.37$, $p = .084$. At average levels of non-zero-sum beliefs, the effect was also not significant, $b = -0.52$, $SE = 3.87$, $p = .893$. At high levels of non-zero-sum beliefs, the effect of collective psychological ownership on stewardship behaviour tends to be negative but did not reach statistical significance, $b = -10.35$, $SE = 5.89$, $p = .079$.

Figure 1

Moderation of the effect of collective psychological ownership on stewardship behaviour by non-zero-sum beliefs



Note. Stewardship behaviour was measured on a scale from 0 % to 100 %. Predicted values were derived from the moderation analysis using unstandardized regression coefficients. CPO = collective psychological ownership; NZSBs = non-zero-sum beliefs. Non-zero-sum beliefs are displayed at three levels: $-1\ SD$, mean and $+1\ SD$.

Discussion

Prior research has shown that feelings of collective psychological ownership can be a source of exclusionary attitudes, intergroup tensions and territorial conflicts, while at the same time fostering intragroup cooperation and stewardship behaviour (Martinović & Verkuyten, 2024; Nijs et al., 2024). The goal of the present study was to examine whether collective psychological ownership shapes zero-sum and non-zero-sum beliefs in intergroup and intragroup conflicts, thereby exploring a potential cognitive mechanism underlying the previously observed differences in behavioural outcomes of collective psychological ownership. It was hypothesized that high collective psychological ownership would have a context-dependent effect on conflict appraisal as zero-sum or non-zero-sum. In particular, it was proposed that high collective psychological ownership would lead to higher zero-sum beliefs in intergroup conflict, because it goes together with exclusive determination rights and emphasizes an "us versus them" perspective that frames conflicts with outgroup members over collectively owned targets as contests over limited and non-shareable entitlements (Davidai & Tepper, 2023; Verkuyten, 2025; Verkuyten & Martinovic, 2017). In intragroup conflict, however, high collective psychological ownership was expected to lead to higher non-zero-sum beliefs, since the shared sense of responsibility toward the owned target and the motivation to maintain a positive social identity and reach consensus among ingroup members should make cooperative interpretations of conflict more likely (Davidai & Tepper, 2023; Martinović & Verkuyten, 2024; Tajfel & Turner, 1979; Turner et al., 1987).

Interpretation of results

Contrary to expectations, the present findings suggest that collective psychological ownership does not systematically influence how conflicts are cognitively appraised in terms of zero-sum versus non-zero-sum beliefs. The predicted context-dependent effect did not emerge. High collective psychological ownership did not lead to higher zero-sum beliefs in

the intergroup condition or to higher non-zero-sum beliefs in the intragroup condition. Instead, participants reported relatively low zero-sum beliefs and higher non-zero-sum beliefs across all four conditions, indicating that they were generally more inclined to perceive the conflict in a non-zero-sum way (see Table 4 and 5). Taken together, these results indicate that neither the manipulation of collective psychological ownership nor the conflict context seemed to have significantly influenced zero-sum and non-zero-sum beliefs.

One possible explanation for these null effects might be that the experimental manipulation of collective psychological ownership via the park scenario was not strong enough to influence cognitive appraisals such as zero-sum beliefs, which may require more direct cues related to competition or resource scarcity. Zero-sum beliefs are particularly likely under conditions of resource scarcity and perceived threat (Davidai & Tepper, 2023; Esses et al., 1998). The conflict scenario regarding the park usage for sports or relaxation may not have been perceived as a high-stakes or threatening situation involving competition over scarce resources. Additionally, group boundaries may not have been emphasised enough in the intergroup condition. When collective ownership beliefs are strongly tied to group identity and group boundaries are prominent, challenges to ownership claims can be perceived not only as disputes over control rights but also as threats to the group's status and identity, intensifying intergroup competition. In the present study however, the intergroup conflict condition may not have activated such identity-relevant threat perceptions (Verkuyten, 2025; Verkuyten & Martinovic, 2017). As a result, participants may have overall regarded the conflict as a collective decision-making process, especially since both arguments (more space to relax and more fitness equipment) could have been perceived as improvements to the shared community space. This would fit the generally higher endorsement of non-zero-sum beliefs across all conditions.

These findings also support the assumption that both zero-sum and non-zero-sum beliefs are relatively stable beliefs that are not that easily influenced by short-term experimental manipulations. Although the manipulation check confirmed that participants in the high collective ownership condition perceived stronger ownership of the park, this may have been insufficient to shift individuals' underlying assumptions about whether social interactions are rather zero-sum or non-zero sum, resulting in the observed stable beliefs across all conditions (Andrews Fearon & Götz, 2024). Prior research has distinguished between two operationalizations of zero-sum beliefs. On the one hand, they can be understood as domain-specific judgements that are sensitive to different contexts. On the other hand, they have been conceptualized as relatively stable, broader mindsets about social relations (Andrews Fearon & Götz, 2024; Davidai & Tepper, 2023). Supporting the point of view of a broader mindset, prior research has shown that viewing life as zero-sum predicts attitudes toward societal issues such as immigration and economic redistribution beyond individuals' political ideology (Davidai & Ongis, 2019). Moreover, Różycka-Tran et al. (2015) conceptualized belief in a zero-sum game as a generalized belief system within the framework of social axioms, which are associated with social behaviour across various contexts. Andrews Fearon and Götz (2024) further situate the zero-sum mindset within the broader domain of personality, emphasizing its cross-situational nature. Non-zero-sum beliefs have likewise been linked to the wider ecosystem perspective, which refers to viewing social relationships on different levels as interconnected systems enabling mutual gains through cooperation (Burgstaller & Florack, 2025; Crocker et al., 2017; Crocker & Canevello, 2015). The present findings, showing that zero-sum and non-zero-sum beliefs remained largely unaffected by both the ownership and conflict context manipulation, may also support the view of zero-sum or non-zero-sum as rather stable beliefs across different contexts.

Although the primary analyses yielded null results, the exploratory analyses regarding stewardship behaviour revealed several additional insights. While collective psychological ownership was not related to zero-sum or non-zero-sum beliefs, it was positively associated with stewardship behaviour, in line with prior study results that feelings of collective ownership are associated with group members' willingness to maintain and care for shared resources (Nijs et al., 2024). Moreover, zero-sum and non-zero-sum beliefs showed significant correlations with stewardship behaviour. Individuals who perceived the conflict as rather zero-sum reported lower willingness to engage in stewardship behaviour, whereas those who perceived the conflict as non-zero-sum reported greater willingness to do so. This pattern supports the assumption that perceiving conflicts as non-zero-sum is related to more prosocial and cooperative behaviour (Burgstaller & Florack, 2025; Davidai & Tepper, 2023).

Additionally, exploratory moderation analysis indicated that the effect of collective psychological ownership on stewardship behaviour may be moderated by non-zero-sum beliefs. For participants low in non-zero-sum beliefs, collective ownership tended to be associated with higher stewardship behaviour, whereas at high non-zero-sum levels this relationship weakened or even showed a negative trend. One possible interpretation of this pattern could be that collective psychological ownership may be more relevant for motivating stewardship behaviour when individuals do not already hold strong non-zero-sum beliefs. When non-zero-sum beliefs are already high, additional ownership cues may play a less important role. However, given the exploratory nature of this analysis and the lack of significance, these interpretations remain speculative and should be examined in future research.

Limitations and future research

Several limitations must be considered when interpreting the findings of this study. First of all, the scenario-based manipulation of collective psychological ownership in an

online questionnaire may have been too weak to influence participants' conflict appraisals. Although attention checks were included, it cannot be fully ensured that participants engaged deeply with the presented scenarios. In addition, as described above, the scenarios might have lacked more salient cues regarding resource scarcity and clearly opposing interests with personally relevant consequences. This would have been especially relevant for the emergence of zero-sum beliefs, which are more likely under conditions of perceived resource scarcity and threat (Davidai & Tepper, 2023; Esses et al., 1998). Future research could therefore employ conflict scenarios with more tangible or consequential outcomes.

Moreover, the present design did not include a manipulation check for the conflict context. A measure of perceived collective ownership threat could theoretically be an important mechanism linking collective psychological ownership to zero-sum conflict appraisals in intergroup contexts (Nijs et al., 2022). Without ownership threat being activated, for example by framing the conflict as a more direct challenge to the group's exclusive rights over the park, the effect from collective psychological ownership on zero-sum appraisals may simply not have been triggered. Future research could therefore include a measure of perceived collective ownership threat and test whether it mediates the relationship between collective psychological ownership and zero-sum conflict appraisals in intergroup settings. In addition, prior research suggests that collective psychological ownership is closely linked to group identity and that its implications for intergroup relations become particularly relevant when group identity and group-based threat are salient (Verkuyten, 2025). Future studies could therefore examine group identification as a moderator of the relationship between collective psychological ownership and zero-sum beliefs in intergroup contexts.

At the same time, it is important to note that the study design required that the experimental conditions remained structurally comparable, meaning that the conflict scenario had to be equivalent for the inter- and intragroup condition. This limited the extent to which

strong group boundaries or explicit ownership threat and competition over scarce resources could be introduced without creating fundamentally different scenarios across conditions. In the intragroup condition, introducing highly salient subgroup distinctions could have unintentionally created intergroup dynamics, undermining the intended comparison between intergroup and intragroup conflicts. This trade-off may have reduced the overall strength of the manipulation. Future research could address this by examining intergroup and intragroup contexts in separate studies and by using designs that allow for stronger and more context-specific manipulations.

Furthermore, future research could build on the exploratory findings of the present study and examine the relationship between collective psychological ownership, zero-sum beliefs, non-zero-sum beliefs and stewardship behaviour in more detail.

Finally, sample characteristics have to be taken into account. The sample was convenience-based, predominantly young, highly educated and relatively homogenous regarding socioeconomic status, which limits the generalizability of the findings. Future studies should therefore aim to recruit a more diverse sample regarding age, education and socioeconomic status. Social desirability concerns might also have influenced participants' responses, leading to a tendency to report more non-zero-sum than zero-sum beliefs. Although the items were adapted to the presented conflict (e.g., "In this conflict..."), they remained somewhat abstract and may have been interpreted as referring to more general beliefs about conflicts rather than a situation-specific appraisal. Future research could address this by formulating zero-sum and non-zero-sum items even more concretely in relation to the specific conflict scenario and its consequences, reducing the risk to answer in a socially accepted way.

Implications and relevance of the study

Building on previous research showing that collective psychological ownership can simultaneously foster intergroup conflict and intragroup cooperation, the present study took a step back and examined whether these divergent behavioural outcomes can be explained by differences in how conflicts are cognitively appraised (Martinović & Verkuyten, 2024; Nijs et al., 2024). To my knowledge, the present study is the first to directly and experimentally test if collective psychological ownership promotes zero-sum appraisals in intergroup conflicts and non-zero-sum appraisals in intragroup conflicts. Although none of the hypotheses were supported, the study contributes to the literature and research on collective psychological ownership as well as zero-sum and non-zero-sum beliefs in several ways. The findings suggest that collective psychological ownership does not necessarily translate into zero-sum or non-zero-sum conflict appraisals, at least not under the conditions examined in this study. Accordingly, the pathway through which collective psychological ownership leads to divergent behavioural outcomes may not primarily operate via these cognitive appraisals. This points future research toward examining other potential cognitive or affective mechanisms that might explain why collective psychological ownership leads to such different behavioural outcomes depending on the social context (Martinović & Verkuyten, 2024; Nijs et al., 2024)

Additionally, the results contribute to the question whether zero-sum and non-zero-sum beliefs are primarily context-dependent appraisals or rather reflect more stable beliefs. The absence of effects across conditions may indicate that zero-sum and non-zero-sum beliefs are relatively stable and not easily influenced by short-term experimental manipulations, consistent with work conceptualizing zero-sum thinking as a broader mindset (Andrews Fearon & Götz, 2024; Davidai & Tepper, 2023).

The exploratory findings regarding stewardship behaviour carry additional theoretical and practical relevance. Zero-sum beliefs were negatively associated with stewardship behaviour, whereas non-zero-sum beliefs were positively associated with it. In addition, exploratory moderation results indicate that the relationship between collective psychological ownership and stewardship behaviour may depend on individuals' non-zero-sum beliefs. Although these results should be interpreted with caution, they suggest that how conflicts over collectively owned targets are perceived is related to whether individuals remain willing to engage in stewardship behaviour, maintaining and protecting the collectively owned target. When conflicts are framed and understood as rather zero-sum, that might be associated with less engagement in stewardship, whereas non-zero-sum interpretations appear to be associated with more stewardship behaviour (Davidai & Tepper, 2023; Nijs et al., 2024). This could be relevant for a variety of contexts in which groups negotiate the use and maintenance of public spaces, infrastructure, or resources. In such settings, conflicts often arise over who is entitled to use, control, or take responsibility for shared targets of ownership (Martinović & Verkuyten, 2024). The present findings suggest that whether these conflicts are understood as zero-sum or non-zero-sum may be related to the degree to which individuals remain willing to contribute to collective outcomes.

Overall, the present study underscores the relevance of collective psychological ownership as a central social psychological topic (Martinović & Verkuyten, 2024). While the proposed influence on zero-sum and non-zero-sum conflict appraisals was not supported, the findings contribute to the understanding of these beliefs as potentially stable mindsets that are not easily shifted by situational cues. Moreover, the exploratory findings suggest that collective psychological ownership, together with how conflicts are appraised, nonetheless matters for whether individuals remain willing to maintain and protect shared resources.

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Appendix A – Online Study

Fragebogen

1 Informed Consent Deutsch

Liebe Teilnehmerin, lieber Teilnehmer,

herzlichen Dank für Ihre Bereitschaft, an dieser Studie des Instituts für Arbeits-, Wirtschafts- und Sozialpsychologie der Universität Wien teilzunehmen.

Im Rahmen dieser Studie untersuchen wir, wie Menschen Situationen im Zusammenhang mit gemeinschaftlich genutzten Orten wahrnehmen und bewerten. Ihre Aufgabe wird es sein, kurze Texte zu lesen, sich die darin beschriebenen Situationen so gut wie möglich vorzustellen und anschließend Fragen dazu zu beantworten.

Die Studie wird ca. 10 Minuten dauern.

Bei Fragen wenden Sie sich bitte an: a12034505@unet.univie.ac.at

Die Studie dient ausschließlich wissenschaftlichen Zwecken. Die Befragung wird vom Institut für Arbeits-, Wirtschafts- und Sozialpsychologie der Universität Wien durchgeführt. Ihre Studienergebnisse werden streng vertraulich behandelt. Die Ergebnisse und Daten dieser Studie werden unter Umständen veröffentlicht. Dies geschieht in anonymisierter Form, d.h., ohne, dass die Daten einer spezifischen Person zugeordnet werden können. Anonyme und anonymisierte Daten unterliegen nicht dem Datenschutz.

Die Teilnahme an der Studie ist freiwillig und mit keinen bekannten Risiken verbunden. Sie können die Teilnahme an dieser Untersuchung zu jedem Zeitpunkt ohne Angaben von Gründen abbrechen. Eine Löschung Ihrer Antworten zu einem späteren Zeitpunkt ist nicht möglich.

Ich habe die oben genannten Informationen gelesen und verstanden und erkläre mich mit den Teilnahmebedingungen einverstanden.

☐ Ja

☐ Nein

2.1 ScreenOut-Consent

Vielen Dank für Ihr Interesse an dieser Umfrage. Leider können Sie nicht teilnehmen, da Sie dem Einverständnisformular nicht zugestimmt haben. Ihre Zustimmung ist erforderlich, um mit der Befragung fortzufahren. Falls Sie es sich anders überlegen, können Sie die Umfrage erneut starten und Ihr Einverständnis geben.

Bei Fragen oder Unklarheiten wenden Sie sich bitte an a12034505@unet.univie.ac.at

3 Demographie (kurz)

Wir werden Ihnen nun noch einige Fragen zu Ihrer Person stellen.

3.1 Demographie

Welchem Geschlecht fühlen Sie sich zugehörig?

- ☐ weiblich
- ☒ männlich
- ☐ divers
- ☐ keine Angabe

Wie alt sind Sie?

Bitte geben Sie das Alter in Jahren an (z.B. 45).

Alter

Welchen höchsten allgemeinbildenden Schulabschluss haben Sie?

- ☐ Ich bin ohne Abschluss von der Schule abgegangen
- ☒ Ich habe einen Abschluss einer Pflichtschule (z.B. Hauptschule oder entsprechende Stufe einer anderen Schulform)
- ☐ Ich habe einen Realschulabschluss oder einen vergleichbaren Abschluss
- ☒ Ich habe einen Abschluss einer Fachschule oder berufsbildenden Schule
- ☐ Ich habe die allgemeine oder fachgebundene Hochschulreife / Abitur / Matura oder die Fachhochschulreife
- ☒ Ich habe einen Universitäts- oder Fachhochschulabschluss (Bachelor, Master, Diplom, Magister, Lizentiat, Staatsexamen, Promotion, Habilitation oder andere)
- ☐ Ich habe einen anderen Schulabschluss und zwar

4.1 Filter_Alter

Vielen Dank für Ihr Interesse an dieser Umfrage. Leider können Sie nicht teilnehmen, da Sie nicht volljährig sind.

Bei Fragen oder Unklarheiten wenden Sie sich bitte an a12034505@unet.univie.ac.at

5 Subjective Socioeconomic Status Ladder (DE)

Unten sehen Sie eine Leiter mit Nummern neben jeder Sprosse. Stellen Sie sich vor, diese Leiter zeigt an, wo **Menschen in Ihrem Land** stehen. An der Spitze der Leiter sind Menschen, die am besten gestellt sind – die am meisten Geld besitzen, die höchste Bildung und die angesehensten Berufe haben. Am unteren Ende der Leiter sind Menschen, die am schlechtesten gestellt sind – die am wenigsten Geld besitzen, über die geringste Bildung verfügen und die am wenigsten angesehen sind oder keine Berufe haben.

Je höher Sie auf der Leiter stehen, desto ähnlicher sind Sie den Menschen am oberen Ende der Leiter. Je niedriger Sie auf der Leiter stehen, desto ähnlicher sind Sie den Menschen am unteren Ende. Bitte geben Sie an, auf welcher Leitersprosse Sie zum gegenwärtigen Zeitpunkt im Vergleich zu anderen **Menschen in Ihrem Land** stehen.



Wo würden Sie sich auf der Leiter platzieren?

Bitte wählen Sie die Nummer aus der drop-down Liste unten aus.

6 Einleitung CPO

Auf der nächsten Seite sehen Sie einen kurzen Text. Wir bitten Sie, sich diesen aufmerksam durchzulesen und sich die darin beschriebene Situation vorzustellen. Es kann sein, dass diese Situation nicht genau auf Sie und Ihr echtes Leben zutrifft. Versuchen Sie dennoch, sich die Situation so gut wie möglich vorzustellen.

Nehmen Sie sich dafür etwas Zeit.

Nach 15 Sekunden können Sie mit den Fragen fortfahren.

7.1 CPO Manipulation (high)

Stellen Sie sich vor, es gibt einen kleinen Park in Ihrer Straße. Früher war dies lediglich eine ungenutzte Fläche, auf der nichts Besonderes stattfand. Dann hat die Gemeinde den Park Ihrer Nachbarschaft zur Verfügung gestellt und Sie haben ihn gemeinsam mit Ihren Nachbar:innen aufgeräumt und einen Picknicktisch aufgestellt (siehe Foto).

Sie als Nachbarschaft verbringen seit mehreren Jahren viel Zeit dort und nutzen den Park beispielsweise für Treffen, zur Erholung oder für sportliche Aktivitäten. Sie haben wirklich das Gefühl, dass es „Ihr Park“ ist und haben ihm sogar den Namen „Unser grüner Park“ gegeben.



7.2 Attention Check CPO

Beschreiben Sie kurz Ihren Park, den Sie sich auf der vorherigen Seite vorstellen sollten. Was könnten Sie und Ihre Nachbarschaft dort tun?

7.3 Manipulation Check CPO

Wenn Sie sich die Situation wirklich vorstellen, inwieweit stimmen Sie den folgenden Aussagen zu oder nicht zu?

[illegible]

7.4 Einleitung Konfliktszenario

Auf der nächsten Seite sehen Sie erneut einen kurzen Text. Wir bitten Sie wieder darum, sich diesen aufmerksam durchzulesen und sich die darin beschriebene Situation so gut wie möglich vorzustellen. Nehmen Sie sich dafür etwas Zeit.
Nach 15 Sekunden können Sie mit den Fragen fortfahren.

7.5 Konfliktszenario (Inter)

In den letzten Wochen verbringen Anwohner:innen aus einer anderen Nachbarschaft sehr viel Zeit im Park. Sie vertreten andere Vorstellungen zur zukünftigen Nutzung des Parks als die Mitglieder Ihrer Nachbarschaft.

Es entsteht ein Interessenskonflikt. Die Anwohner:innen der anderen Nachbarschaft schlagen immer wieder vor, mehr Sitzgelegenheiten zu schaffen und den Park als Ort zum Ausruhen zu nutzen, während Ihre Nachbarschaft sich dafür ausspricht, mehr Platz für sportliche Aktivitäten und Fitnessgeräte zu schaffen.

7.6 Attention Check Konflikt

Beschreiben Sie kurz, zwischen wem der Konflikt stattfindet und worum es geht. Was könnten mögliche Argumente sein und was könnten Sie in dieser Situation tun?



7.7 Zero-Sum Beliefs

[illegible]

Bitte geben Sie an, inwiefern Sie den folgenden Aussagen in Bezug auf die zuvor beschriebene Konfliktsituation zustimmen.

[illegible]

8.1 CPO Manipulation (low)

Stellen Sie sich vor, es gibt einen kleinen Park in Ihrer Straße. Früher war dies lediglich eine ungenutzte Fläche, auf der nichts Besonderes stattfand. Dann hat die Gemeinde dort aufgeräumt und einen Picknicktisch aufgestellt (siehe Foto).



8.2 Attention Check CPO

Beschreiben Sie kurz den Park, den Sie sich auf der vorherigen Seite vorstellen sollten. Was könnten Sie dort tun?

8.3 Manipulation Check CPO

Wenn Sie sich die Situation wirklich vorstellen, inwieweit stimmen Sie den folgenden Aussagen zu oder nicht zu?

[illegible]

8.4 Einleitung Konfliktszenario

Auf der nächsten Seite sehen Sie erneut einen kurzen Text. Wir bitten Sie wieder darum, sich diesen aufmerksam durchzulesen und sich die darin beschriebene Situation so gut wie möglich vorzustellen. Nehmen Sie sich dafür etwas Zeit.
Nach 15 Sekunden können Sie mit den Fragen fortfahren.

8.5 Konfliktszenario (Inter)

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8.6 Attention Check Konflikt

Beschreiben Sie kurz, zwischen wem der Konflikt stattfindet und worum es geht. Was könnten mögliche Argumente sein und was könnten Sie in dieser Situation tun?



8.7 Zero-Sum Beliefs

[illegible]

Bitte geben Sie an, inwiefern Sie den folgenden Aussagen in Bezug auf die zuvor beschriebene Konfliktsituation zustimmen.

[illegible]

9.1 CPO Manipulation (high)

Stellen Sie sich vor, es gibt einen kleinen Park in Ihrer Straße. Früher war dies lediglich eine ungenutzte Fläche, auf der nichts Besonderes stattfand. Dann hat die Gemeinde den Park Ihrer Nachbarschaft zur Verfügung gestellt und Sie haben ihn gemeinsam mit Ihren Nachbar:innen aufgeräumt und einen Picknicktisch aufgestellt (siehe Foto).

Sie als Nachbarschaft verbringen seit mehreren Jahren viel Zeit dort und nutzen den Park beispielsweise für Treffen, zur Erholung oder für sportliche Aktivitäten. Sie haben wirklich das Gefühl, dass es „Ihr Park“ ist und haben ihm sogar den Namen „Unser grüner Park“ gegeben.



9.2 Attention Check CPO

Beschreiben Sie kurz Ihren Park, den Sie sich auf der vorherigen Seite vorstellen sollten. Was könnten Sie und Ihre Nachbarschaft dort tun?

9.3 Manipulation Check CPO

Wenn Sie sich die Situation wirklich vorstellen, inwieweit stimmen Sie den folgenden Aussagen zu oder nicht zu?

	stimme überhaupt nicht zu	stimme größtenteils nicht zu	stimme eher nicht zu	teils-teils	stimme eher zu	stimme größtenteils zu	stimme voll und ganz zu
Wenn ich an den Park denke, habe ich wirklich das Gefühl, dass er uns Nachbar:innen gehört.	☐	☐	☐	☐	☐	☐	☐
Ich habe das starke Gefühl, dass dieser Park uns Nachbar:innen gehört.	☐	☐	☐	☐	☐	☐	☐

9.4 Einleitung Konfliktszenario

Auf der nächsten Seite sehen Sie erneut einen kurzen Text. Wir bitten Sie wieder darum, sich diesen aufmerksam durchzulesen und sich die darin beschriebene Situation so gut wie möglich vorzustellen. Nehmen Sie sich dafür etwas Zeit.

Nach 15 Sekunden können Sie mit den Fragen fortfahren.

9.5 Konfliktszenario (Intra)

In Ihrer Nachbarschaft gibt es unterschiedliche Vorstellungen darüber, wie der Park zukünftig gestaltet werden soll.

Es entsteht ein Interessenskonflikt. Während einige Nachbar:innen vorschlagen, mehr Sitzgelegenheiten zu schaffen und den Park als Ort zum Ausruhen zu nutzen, sprechen Sie und weitere Nachbar:innen sich dafür aus, mehr Platz für sportliche Aktivitäten und Fitnessgeräte zu schaffen.

9.6 Attention Check Konflikt

Beschreiben Sie kurz, zwischen wem der Konflikt stattfindet und worum es geht. Was könnten mögliche Argumente sein und was könnten Sie in dieser Situation tun?

9.7 Zero-Sum Beliefs

[illegible][illegible]

10.1 CPO Manipulation (low)

Stellen Sie sich vor, es gibt einen kleinen Park in Ihrer Straße. Früher war dies lediglich eine ungenutzte Fläche, auf der nichts Besonderes stattfand. Dann hat die Gemeinde dort aufgeräumt und einen Picknicktisch aufgestellt (siehe Foto).



10.2 Attention Check CPO

Beschreiben Sie kurz den Park, den Sie sich auf der vorherigen Seite vorstellen sollten. Was könnten Sie dort tun?

10.3 Manipulation Check CPO

Wenn Sie sich die Situation wirklich vorstellen, inwieweit stimmen Sie den folgenden Aussagen zu oder nicht zu?

[illegible]

10.4 Einleitung Konfliktszenario

Auf der nächsten Seite sehen Sie erneut einen kurzen Text. Wir bitten Sie wieder darum, sich diesen aufmerksam durchzulesen und sich die darin beschriebene Situation so gut wie möglich vorzustellen. Nehmen Sie sich dafür etwas Zeit.
Nach 15 Sekunden können Sie mit den Fragen fortfahren.

10.5 Konfliktszenario (Intra)

In Ihrer Nachbarschaft gibt es unterschiedliche Vorstellungen darüber, wie der Park zukünftig gestaltet werden soll.

Es entsteht ein Interessenskonflikt. Während einige Nachbar:innen vorschlagen, mehr Sitzgelegenheiten zu schaffen und den Park als Ort zum Ausruhen zu nutzen, sprechen Sie und weitere Nachbar:innen sich dafür aus, mehr Platz für sportliche Aktivitäten und Fitnessgeräte zu schaffen.

10.6 Attention Check Konflikt

Beschreiben Sie kurz, zwischen wem der Konflikt stattfindet und worum es geht. Was könnten mögliche Argumente sein und was könnten Sie in dieser Situation tun?



10.7 Zero-Sum Beliefs

[illegible][illegible]

11 stewardship behaviour

Bitte stellen Sie sich vor, dass sich Ihre Position in dem zuvor beschriebenen Konflikt **nicht** durchgesetzt hat. Anstatt mehr Platz für sportliche Aktivitäten und Fitnessgeräte zu schaffen, werden nun neue Sitzgelegenheiten im Park geplant.

Wie wahrscheinlich ist es auf einer Skala von 0 % (auf keinen Fall) bis 100 % (auf jeden Fall), dass Sie als Nachbarschaft gemeinsam...

...den Park weiterhin instand halten.

...Müll im Park aufsammeln.

...Geld für einen neuen Picknicktisch beisteuern, falls der alte kaputt ist.

12 End

Die Studie ist nun beendet. Vielen Dank für Ihre Teilnahme!

Ziel dieser Studie ist es zu untersuchen, wie Menschen Konfliktsituationen wahrnehmen und bewerten, wenn sie das Gefühl haben, dass ein Ort oder eine Ressource (zum Beispiel ein gemeinschaftlich genutzter Park) „ihrer“ Gruppe (etwa der eigenen Nachbarschaft) gehört.

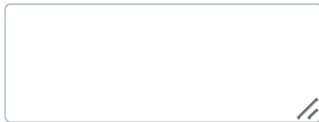
Verschiedene frühere Studien zeigen, dass ein solches Gefühl gemeinsamen Eigentums das Verhalten von Menschen beeinflussen kann. Es kann dazu führen, dass Gruppen sich stärker für den Erhalt und die Gestaltung dessen einsetzen, was sie als „ihr“ Eigentum wahrnehmen und sich dafür verantwortlich fühlen, aber auch zum Ausschluss von Außenstehenden, die möglicherweise ebenfalls Anspruch darauf erheben oder mitentscheiden möchten.

Unsere Annahme ist, dass diese unterschiedlichen Reaktionen dadurch erklärt werden können, wie Menschen Konfliktsituationen wahrnehmen. Das Gefühl von gemeinsamem Eigentum kann dazu führen, dass Konflikte mit anderen Gruppen eher als Konkurrenzsituationen wahrgenommen werden, während Konflikte innerhalb der eigenen Gruppe eher als gemeinsam lösbar und als Möglichkeit zur Kooperation eingeschätzt werden.

Falls Sie weitere Fragen haben oder sich für die Studienergebnisse interessieren, wenden Sie sich bitte an: Maxi Katharina Richter (a12034505@unet.univie.ac.at)

Möchten Sie uns noch etwas mitteilen?

Hier können Sie Ihre Gedanken und Eindrücke über die Studie notieren und/oder Feedback zum Fragebogen geben.



13 Endseite

Ihre Antworten wurden gespeichert. Sie können den Browser schließen. Vielen Dank!

Appendix B – Use of AI

Hereby, I declare that I have used the following AI tools for the creation of my Master's Thesis titled "Collective Psychological Ownership as a Driver of Zero-Sum and Non-Zero-Sum Beliefs in Inter- and Intragroup Conflicts". I confirm that the identification of the AI tools used is complete, including the purpose of use, product name, and, if applicable, the prompts and outputs of the AI tool. I take full responsibility for the selection and incorporation of all results from the AI tools I have used.

Purpose of use*	Product name of the AI tool	If applicable, prompt (input) and output of the AI tool
Literature research	Consensus	
Translation aid, improvement of academic English writing	ChatGPT, Perplexity	
Adapting Item Scales and scenarios	ChatGPT, Perplexity	
Assistance with statistical analysis and interpretation of results	ChatGPT, Claude	

*Tools used for grammar and spell-checking or the automated creation of bibliographies are excluded from this declaration.

Vienna, May 3, 2026