Instytut Psychologii
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# Znaczenie tożsamości społecznej w grupach opartych na wspólnych opiniach w kształtowaniu postaw i zachowań społecznych

[The role of social identity in opinion-based groups in shaping attitudes and social behavior]

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**Spis treści**

**Streszczenie**

W ostatnich latach tożsamość społeczna w grupach opartych na podzielanej opinii stała się jednym z konstruktów zgłębiających zachowania społeczne motywowane z poziomu indywidualnego (Thomas & McGarty, 2009). Poczucie przynależności do grupy zbudowanej na wspólnej opinii nie jest jedynie konsekwencją przypisania do określonej kategorii społeczno-demograficznej (np. narodowości czy płci), ale wiąże się z autentycznym zaangażowaniem, odzwierciedlającym rzeczywiste przekonania i postawy (Weinstein i Ryan, 2010).

W niniejszej rozprawie badałam, w jaki sposób tożsamość społeczna w grupach opartych na wspólnych opiniach koreluje z kształtowaniem postaw i zachowaniami społecznymi. Starałam się udzielić odpowiedzi na następujące pytania badawcze: (1) jakie są moderatory współwystępowania tożsamości społecznej w grupach bazujących na podzielanej opinii z angażowaniem się w różne przejawy współpracy wewnątrz/międzygrupowej?; (2) jaką funkcję pełni tożsamość społeczna w grupach bazujących na podzielanej opinii w działaniach kolektywnych w rzeczywistości wirtualnej?; (3) jaką rolę odgrywa tożsamość społeczna w grupach bazujących na podzielanej opinii w kształtowaniu postaw wobec sztucznej inteligencji (SI)? Powyższe hipotezy przetestowałam w serii sześciu badań tworzących spójny cykl trzech publikacji pierwszoautorskich.

W badaniu pierwszym (publikacja 1) wykazałam pozytywny związek średniej siły między tożsamością społeczną w grupach opartych o wspólne opinie a zjawiskami międzygrupowymi (działanie kolektywne, aktywizm online, redukcja uprzedzeń). Dodatkowo, zidentyfikowałam trzy istotne moderatory odpowiedzialne za całkowitą zmienność wielkości efektów: 1) operacjonalizacja zmiennej „tożsamość społeczna”; 2) typ działania grupowego; 3) rodzaj partycypacji w zjawisku społecznym (deklaracja/faktyczne zachowanie). W badaniu drugim (publikacja 2) zaobserwowałam, że tożsamość społeczna z grupą wspierającą walkę ze zmianami klimatycznymi jest predyktorem intencji uczestnictwa w kampanii crowdfundingowej skierowanej na ten cel. W badaniu trzecim (publikacja 2) zreplikowałam ten efekt w kontekście kampanii crowdfundingowej skierowanej do osób wspierającej różnorodność kulturową. W badaniu czwartym (publikacja 2), gdzie analizowano faktyczne zachowania, siła efektu była znacząco niższa. Badanie piąte (publikacja 3) wykazało, że silniejsze poczucie tożsamości z grupą zwolenników rozwoju SI współwystępowało z bardziej akceptującą postawą wobec aplikacji wzorowanej na chacieGPT. Dodatkowo, model wyjaśniający postawę wobec SI, który uwzględnia czynniki grupowe istotnie poprawił dopasowanie w porównaniu z modelem

opartym na komponentach indywidualnych. W badaniu szóstym (publikacja 3) zaobserwowałam, że spostrzegana kontrolowalność stanów mentalnych SI jest moderatorem relacji między tożsamością grupową a postawą wobec SI.

Podsumowując, poprzez serię badań o różnej metodologii (od metaanalizy przez przegląd narracyjny, po badania korelacyjne oraz quasi-eksperymentalne) potwierdziłam, że podzielane opinie mogą stanowić solidną podstawę do ukształtowania identyfikacji grupowej, która to przekłada się na różne przejawy dynamiki międzygrupowej, ze szczególnym uwzględnieniem relatywnie nowych zjawisk społecznych tj. udziału w kampaniach crowdfundingowych czy interakcji ze sztuczną inteligencją.

***Słowa kluczowe:*** tożsamość grupowa, tożsamość społeczna, grupy oparte na wspólnej opinii, działania kolektywne, crowdfunding, sztuczna inteligencja, kontrolowalność stanów mentalnych, postawy wobec SI

**Abstract**

In recent years, social identity within opinion-based groups has emerged as a key construct in understanding social behaviors motivated at the individual level (Thomas & McGarty, 2009). A sense of belonging to a group formed around shared opinions is not merely a consequence of being assigned to a specific socio-demographic category (e.g., nationality or gender) but is associated with authentic engagement, reflecting individuals' genuine beliefs and attitudes (Weinstein & Ryan, 2010).

In this dissertation, I examined how social identity in opinion-based groups correlates with attitude formation and social behavior. I aimed to answer the following research questions: (1) what factors moderate the relationship between social identity in opinion-based groups and engagement in various forms of intra- and intergroup cooperation?; (2) what function does social identity serve in opinion-based groups in the context of collective actions in virtual environments?; (3) what role does social identity in opinion-based groups play in shaping attitudes toward artificial intelligence (AI)?

These hypotheses were tested in a series of six studies, forming a cohesive cycle of three first-author publications. The first study (Publication 1) demonstrated a positive association between social identity in opinion-based groups and intergroup phenomena such as collective action, online activism, and prejudice reduction. Additionally, three significant moderators were identified as responsible for the overall variability in effect sizes:(1) the operationalization of the social identity variable, (2) the type of group action, and (3) the form of participation (declarative vs. actual behavior). The second study (Publication 2) focused on the role of social identity in engagement with crowdfunding campaigns. It was found that stronger identification with a group supporting climate change mitigation predicted a higher intention to participate in crowdfunding campaigns related to this cause. This effect was replicated in the third study within the context of a campaign promoting cultural diversity. However, in the fourth study examining actual financial contributions, the effect size was significantly lower, suggesting a discrepancy between declared intentions and real-world behaviors. The fifth study (Publication 3) investigated the role of social identity in shaping attitudes toward artificial intelligence. The findings revealed that individuals identifying as AI development supporters exhibited more accepting attitudes toward an AI-based application modeled after ChatGPT. Furthermore, an analysis of predictors of AI acceptance showed that incorporating group-based factors (e.g.,

identification with AI supporters) significantly improved the explanatory power of the model compared to an individual-level approach. In a subsequent study, perceived controllability of AI's mental states was found to moderate the relationship between social identity and attitudes toward AI—participants demonstrated greater acceptance of AI when it was portrayed as having predictable and controllable intentions.

In conclusion, this research series, employing a diverse methodological approach—including meta-analysis, narrative review, correlational studies, and quasi-experimental designs—provided evidence that shared opinions can serve as a robust foundation for the formation of group identity. Social identity in opinion-based groups shapes various aspects of intergroup dynamics, particularly in the context of emerging social phenomena such as engagement in crowdfunding campaigns and interactions with artificial intelligence.

***Keywords:*** group identity, social identity, opinion-based groups, collective action, crowdfunding, artificial intelligence, controlabillity of mental states, attitudes towards artifical intelligence

# Wstęp

## Tożsamość społeczna jako efekt kategoryzacji grupowej

Instynkt społeczny jest jednym z głównych przymiotów każdego człowieka (Darwin, 1871). Wiele z adaptacji ewolucyjnych naszego gatunku zostało podporządkowanych skuteczniejszemu rozwiązywaniu dylematu hiperuspołecznienia i aktywnego zarządzania życiem w grupach (Cacioppo i Hawkley, 2009). Potrzebujemy afiliacji – poczucia akceptacji w grupie rodzinnej, paczce przyjaciół, grupach rówieśniczych czy społecznościach o wspólnych wartościach i przekonaniach (Baumeister i Leary, 1995). Wiele działań nie osiągnęłoby zamierzonych efektów, gdyby realizowano je wyłącznie na poziomie jednostkowym – przykładem mogą być takie aktywności jak polowanie, płacenie podatków czy proces szczepień (Davisson i Hoyle, 2023; Su i in., 2023). Dlatego też ludzie organizują się w różnorodne grupy, często oparte na wspólnych przekonaniach i wartościach (McGarty i in., 2009), takich jak postawy wobec kwestii ekologicznych, pluralizm kulturowy czy sceptycyzm względem rozwoju sztucznej inteligencji (SI). Wyobraźmy sobie sytuację, w której uczestniczymy w żywej dyskusji na temat aktualnych wydarzeń społecznych. Nagle uświadamiamy sobie, że nasze stanowisko ma zaskakująco wiele punktów wspólnych z opiniami innych uczestników. Tego rodzaju poczucie wspólnoty bazującej na podobnych przekonaniach sprawia, że nie tylko doświadczamy większego poczucia komfortu sprzyjającego wyrażaniu naszych opinii, lecz także oddziałuje na nasze emocje, sposób myślenia, a nawet zachowanie (Bliuc i in., 2007; Musgrove i McGarty, 2008). Dlaczego tak się dzieje? Jak przynależność do grup opartych na wspólnych opiniach kształtuje nasze postawy i reakcje społeczne? Celem niniejszej rozprawy jest zbadanie, czy podzielane opinie mogą stanowić solidną podstawę do ukształtowania tożsamości grupowej, która to przekłada się na różne przejawy dynamiki międzygrupowej (np. działania kolektywne, redukcja uprzedzeń, aktywizm online), ze szczególnym uwzględnieniem relatywnie nowych zjawisk społecznych tj. crowdfundingu czy obcowania ze sztuczną inteligencją.

Fundamentem tożsamości jest spójność i stałość określonego zestawu najważniejszych cech w czasie, które to dany obiekt czynią unikalny tj. wyjątkowy i inny niż pozostali (Baumeister i Muraven, 1996). Tożsamość określa się mianem nadrzędnego katalizatora psychospołecznego funkcjonowania jednostki, który odnosi się do relacji człowieka z samym sobą i z innymi ludźmi (Pilarska, 2012). Każda zdrowa psychicznie osoba może posiadać nie tylko tożsamość osobistą, lecz także zdolność przynależności do

wielu grup, co pozwala jej na dostęp do różnorodnego zestawu tożsamości społecznych (Thomas i in., 2017). Tożsamość osobistą definiuje się jako „subsystem samowiedzy, na który składają się cechy spostrzegane przez podmiot jako dla własnej osoby najbardziej charakterystyczne i zarazem najbardziej specyficzne, to jest najwyraźniej odróżniające własną osobę od innych ludzi" (Jarymowicz, 2000, s. 125). Ten aspekt Ja jest wyróżnikiem spośród innych członków grupy własnej. Natomiast identyfikacja z określoną grupą to „ta część obrazu siebie jednostki, która wynika z wiedzy o jej przynależności do grupy społecznej wraz z wartością i emocjonalnym znaczeniem przywiązanym do tej przynależności" (Tajfel, 1978, s. 63). Ten aspekt "Ja" odróżnia osobę jako członka grupy własnej od reprezentantów grupy obcej. Zatem tożsamość osobista, związana z unikalnymi cechami jednostki, pozwala na formowanie poczucia odrębności, natomiast tożsamość społeczna, wynikająca z identyfikacji z grupą, umożliwia budowanie relacji społecznych oraz poczucia przynależności.

Aktywizacja tożsamości osobistej lub społecznej to dynamiczny proces, który jest nieustannie modyfikowany przez znaczenie kontekstu społecznego (Turner i in., 1987). Jednostki stale balansują między chęcią podkreślania własnej niezależności a potrzebą adaptacji do otoczenia społecznego (Horsney i Jetten, 2004; Jarymowicz, 1984). Sposób, w jaki nawigujemy między przynależnością do grupy i naszym poczuciem kolektywności np. podczas koncertów czy demonstracji, a poczuciem odrębności, oddziałuje na interpretację relacji z innymi (Oakes, 1987; Turner i Oakes, 1989). Tożsamość społeczna ukierunkowuje na działanie na rzecz grupy, podczas gdy tożsamość osobista zwraca nas ku samorealizacji i wyrażaniu indywidualnych przekonań (zob. Goldman i in., 2002; Oyserman, 2009). Identyfikacja z grupą nie jest więc jedynie mechanizmem poznawczym, lecz może również modyfikować procesy emocjonalne, a także zachowanie. Podsumowując, trzeba zauważyć, że subiektywne postrzeganie przynależności do grupy może wpływać na nasze postawy, relacje społeczne oraz sposób, w jaki manifestujemy swoje indywidualne cele w kontekście społecznym.

Poczucie przynależności do grupy jest efektem kategoryzacji, która pozwala na uporządkowanie i zrozumienie świata społecznego. Kategoria, tj. zbiór obiektów lub osób o spójnych cechach, umożliwiają organizowanie informacji w sposób ułatwiający ich przetwarzanie (Rosch, 1978). W toku rozwoju poznawczego i społecznego kategorie stają się coraz bardziej różnorodne i abstrakcyjne (Piaget, 1952). Finalnie, są podstawowym

punktem odniesienia wykorzystywanym w procesach podejmowania decyzji czy wchodzenia w interakcje z otoczeniem. Zgodnie z teorią tożsamości społecznej (Tajfel, 1978) mamy naturalną tendencję do kategoryzowania siebie i innych przez pryzmat grupowy, co prowadzi do istotnych konsekwencji. Wyróżniono tu trzy podstawowe fazy: (1) proces kategoryzacji społecznej uruchamia (2) mechanizm porównań międzygrupowych, czego efektem jest (3) ukształtowanie się tożsamości grupowej.

W ramach procesu kategoryzacji ludzie postrzegają zarówno samych siebie, jak i inne jednostki jako reprezentantów poszczególnych grup, co skutkuje odmienną percepcją społeczną. Kategoria grupy własnej („my") przeciwstawiana jest kategorii grupy obcej („oni"). Prowadzi to do porównań społecznych, których naczelnym motywem staje się podtrzymanie pozytywnej reputacji grupy własnej. Mamy wówczas do czynienia ze zjawiskiem faworyzacji grupy własnej oznaczającym, że jej członkowie budzą szczególnie pozytywne odczucia, są przychylniej oceniani i traktowani w uprzywilejowany sposób. Ludzie angażują więc swoje zasoby poznawcze, aby grupa, z którą się aktualnie identyfikują, jawiła się jako nadrzędna wobec pozostałych (Tajfel, 1978; Tajfel i Turner, 1986). Innymi słowy, dochodzi do zmiany postrzegania rzeczywistości społecznej, w taki sposób, by grupa własna była walidowana lepiej od pozostałych, cechowała się większym prestiżem i wysokim statusem. Poprzez uformowaną w tym procesie tożsamość grupową ludzie zaspokajają swoje podstawowe potrzeby społeczne i indywidualne, tj. poczucie przynależności, zrozumienia, bycia ważnym dla innych. Ponadto, według Tajfela (1982) tożsamość grupowa jest przedłużeniem tożsamości osobistej, która ma za zadanie służyć wzmocnieniu pozytywnej samooceny jednostki. W rezultacie poprzez identyfikację z pozytywnie ocenianą grupą następuje podniesienie poczucia własnej wartości.

Warto nadmienić, że proces identyfikacji z grupą własną jest również powiązany ze sposobem spostrzegania i zachowania wobec grupy obcej. Na skutek porównań społecznych, obok faworyzacji grupy własnej, zachodzi zjawisko deprecjacji grupy obcej (Tajfel, 1978; Tajfel i Turner, 1986). Mianowicie, jej członkowie automatycznie wywołują negatywne emocje i niechęć, co ma na celu wzmocnienie poczucia wyższości i korzystnej pozycji grupy własnej (Figueiredo i Elkins, 2003; Meeus i in., 2010). Co więcej, członkowie grupy własnej odbierani są jako bardziej zróżnicowani, wręcz wyjątkowi, podczas gdy grupa obca jest tworem jednorodnym, spajającym niemalże takie same osoby. Klasyczne badania nad paradygmatem grup minimalnych wskazują, że kategoryzacja i jej następstwa w postaci

faworyzacji grupy własnej i deprecjacji grupy obcej występują nawet przy arbitralnym podziale na grupy według mało znaczącej cechy (Tajfel in., 1971). Jak widać, postrzeganie innych z perspektywy grupowej jest podstawą kształtowania określonych postaw wobec członków owych grup.

Rozwinięcie teorii tożsamości społecznej stanowi teoria autokategoryzacji (Turner i in., 1987). Jej głównym zagadnieniem jest sam proces klasyfikowania jednostki jako członka danej grupy, tj. jako reprezentacji poznawczej określonej kategorii społecznej. Wyróżniono tu trzy możliwie poziomy kategoryzacji: ludzki (w rozumieniu rodzaju ludzkiego), społeczny i osobisty, gdzie dwa ostatnie odnoszą się do tożsamości społecznej oraz indywidualnej. Poziomy te są aktywizowane w zależności od charakteru interakcji: w kontakcie interpersonalnym uruchamia się poziom osobisty, w interakcji międzygrupowej zaś – poziom społeczny. Proces wyboru kategorii rządzi się zasadą metakontrastu, która postuluje maksymalne zredukowanie różnic między obiektami przypisanymi do tej samej kategorii przy równoczesnym uwypukleniu różnic między obiektami zaliczonymi do kategorii odrębnych. W efekcie, tak uproszczona procedura percepcyjna pozwala na stworzenie i zastosowanie schematów poznawczych, które stanowią podstawę wnioskowania o cechach jednostki na bazie samej przynależności kategorialnej. Podkreśla się tu także dążenie ludzi do kategoryzacji pozytywnych, czyli dodatniej walidacji tych zbiorowości, do których należą, co łączy się z opisanym wcześniej motywem wzmacniania samooceny.

Zgodne z teorią Turnera i współpracowników (1987), ze względu na ograniczone zasoby poznawcze w danym momencie kategoryzacja na poziomie społecznym hamuje aktywizację poziomu osobistego i odwrotnie. W konsekwencji, inicjowany jest proces depersonalizacji, określany jako „(...) podstawowy proces leżący u podstaw zjawisk grupowych (stereotypizacja społeczna, spójność grupy, etnocentryzm, współpraca i altruizm, zarażanie emocjonalne i empatia, działania zbiorowe, wspólne normy oraz procesy wpływu społecznego itp.)” (Turner i in., 1987, s. 50). W jego ramach jednostki dokonują autostereotypizacji zgodnie z definicją danej kategorii społecznej i postrzegają siebie jako w pełni zastępowane innymi członkami tej kategorii społecznej. Jednocześnie, przedstawiciele grupy obcej są postrzegani jako identyczni i wymienni, stając się obiektami stereotypizacji. W ten sposób następuje przesunięcie z ich osobistej tożsamości na tożsamość członka określonej grupy społecznej. Depersonalizacja jest więc podstawowym

warunkiem konsolidacji grupy społecznej i wykształcenia poczucia przynależności do danej kategorii społecznej.

Teoria autokategoryzacji stawia sobie zatem za cel wyjaśnienie, w jaki sposób jednostki mogą łączyć się w grupy, mimo braku wcześniejszych relacji czy interakcji interpersonalnych. Teoria tożsamości społecznej traktuje o tym, jakie są możliwe dalsze konsekwencje identyfikacji z daną kategorią społeczną. Jak widać, autopercepcja na poziomie społecznym skutkuje formowaniem się poczucia przynależności do grupy, które to ma znaczące implikacje dla sposobu funkcjonowania w społeczeństwie. Mianowicie wpływa na skłonność do współdziałania z grupą własną (Kunst i in., 2015), wzmacnia lojalność wobec niej (Van Vugt i Hart, 2004), sprzyja przestrzeganiu normy społecznych respektowanych w grupie (Liu i in., 2019), lecz może też nasilać konflikt (Livingstone i Haslam, 2008) lub dyskryminację grupy obcej (Figueiredo i Elkins, 2003).

**Wspólna opinia jako podstawa grupy**

Pojęcie tożsamości grupowej ewoluowało wraz ze zmieniającą się rzeczywistością społeczną. Klasyczne badania wyjaśniające przebieg kształtowania się i następstwa identyfikacji z daną kategorią społeczną, skupiały się na podziałach bazujących na obiektywnych kryteriach socjo-demograficznych, takich jak etniczność, płeć, religia, narodowość czy afiliacja z instytucjami lub partiami politycznymi (de Weerd i Klandermans, 1999; van Zomeren i in., 2008). Przyjmowano zatem, że z góry narzucone cechy, będące w naturalny sposób osią podziału między jednostkami, stanowią podstawowy budulec dla przynależności grupowej. Badacze koncentrowali się głównie na tożsamości społecznej w grupach uprzywilejowanych *(advantaged groups*) i nieuprzywilejowanych *(disadvantaged groups)* czy upolitycznej tożsamości kolektywnej (*politicized collective identity*). Choć członkostwo w tego rodzaju grupach jest istotne, zazwyczaj stanowiło stosunkowo słaby predyktor zaangażowania w działania na rzecz zbiorowości (de Weerd i Klandermans, 1999). Warto zaznaczyć, że wymienione pojęcia są głównym przedmiotem wnikliwych analiz psychologii politycznej (zob. Klandermans, 2014; van Zomeren, 2016). Natomiast ujęciem, które pojawiło się w odpowiedzi na potrzebę trafniejszego wyjaśnienia współczesnych wyzwań społecznych, wykraczających poza ramy polityczne, są grupy oparte na podzielnych opiniach *(opinion-based groups;* McGarty i in., 2009).

Grupa oparta na wspólnej opinii kształtuje się, gdy stanowisko w odniesieniu do określonej kwestii społecznej postrzegane jest jako podstawa do wykształcenia się odrębnej tożsamości społecznej (McGarty i in., 2009). Podczas gdy opinie tradycyjnie traktowane były jako indywidualne konstrukty poznawcze, perspektywa tożsamości społecznej uznaje opinię za „okno na tożsamość" (Hogg i Smith, 2007). Gdy ktoś wyraża jakąś opinię, mamy wrażenie, że dowiedzieliśmy się czegoś o tym, kim ta osoba jest, zaś gdy werbalizujemy własne opinie, czujemy, że komunikujemy coś o sobie. Co więcej, gdy ktoś wyraża określoną opinię, mamy tendencję do wyciągania wniosków na temat innych poglądów, jakie ta osoba może wyznawać.

Istotnym elementem procesu formowania grupy jest właśnie etap komunikowania i krystalizacji podzielanych opinii w ramach interakcji potencjalnych członków społeczności. Wyrażenie i potwierdzane wspólnego stanowiska wzmacnia tworzenie się więzi i norm grupowych (O'Reilly i in., 2022). Różnica między jedynie posiadaniem opinii a identyfikowaniem się z grupą opartą na tej opinii polega na tym, że w drugim przypadku jednostki dzielące tę samą opinię kategoryzowane są jako część tej samej społeczności. Innymi słowy, ludzie uznają wspólną opinię za krytyczną podstawę rozpoznania przynależności grupowej, a w konsekwencji do wykształcenia zbiorowej tożsamości jej członków. Ogólnie rzecz biorąc, tożsamość społeczna umożliwia nawiązywanie więzi z osobami o podobnych opiniach, podtrzymując poczucie jedności i wspólnego celu.

Mimo pewnej płynności i elastyczności podzielane przekonania stanowią wystarczającą podstawę do uruchomienia procesu autokategoryzacji jednostki jako członka grupy zbudowanej na wspólnej opinii. Opinia taka może być zupełnie oderwana od treści spójnych z wcześniej istniejącymi ramami grupowymi (Lüders i in., 2024; O'Reilly i in., 2024). Tak więc, opinia w danej kwestii społecznej prowadzi do wykształcenia się nowego poczucia tożsamości grupowej, która może w żaden sposób nie pokrywać się z istniejącymi wcześniej kategoriami. Oznacza to, że oddolnie konstruowana grupowość jest zjawiskiem dynamicznym i subiektywnym, warunkowanym przez istotny kontekst społeczny. Zgodność opinii wśród kilku osób to czynnik wyzwalający formowanie grupy, niezależnie od innych czynników, szczególnie wtedy, gdy dane przekonanie jest wyrażane i potwierdzane przez członków danej społeczności (Dinkelberg i in., 2023). W konsekwencji tak uformowana grupa wykazuje silniejsze intencje działań grupowych zgodnych z postulatami danej opinii niż grupa składającą się z osób indywidualnie podzielających daną opinię, ale pozostających

samotnie i nieświadomych istnienia zgodności opinii wśród innych (Gee i in., 2007; Thomas i McGarty, 2009; Thomas i in., 2019). Co ważne, do wykształcenia się tożsamości grupowej nie jest niezbędna bezpośrednia dyskusja na temat danej kwestii społecznej, a wystarczy już sama świadomość, że inne osoby podzielają naszą opinię (O'Reilly i in., 2024).

Jednym z atutów grup opartych na opiniach jest zdolność do przekraczania tradycyjnych kategorii społecznych (takich jak narodowość czy płeć), umożliwiająca zarówno grupom uprzywilejowanym, jak i nieuprzywilejowanym łączenie się poprzez wspólne przekonanie o tym, „jak powinien wyglądać świat" (McGarty i in., 2014). Mimo że przynależność do określonej obiektywnie kategorii społecznej może być wysoce istotna dla konkretnego problemu (np. protestowanie przeciwko regulacjom dotyczącym równości płci czy wieku emerytalnego), koncentrowanie się wyłącznie na tej kategorii może prowadzić do zaniedbania kontekstowej istotności takiej przynależności (szerszy kontekst, np. kryzys klimatyczny, dotyka ludzi niezależnie od ich płci czy wieku). To podejście może pomijać główne moderatory zależności (grupowe normy działania czy kolektywne reakcje emocjonalne; Musgrove i McGarty, 2008) i nie uchwycić elementów o największym psychologiczne znaczeniu dla członków grupy w danym momencie (subiektywne poczucie przynależności do grupy; McGarty i in., 2009). Zastany podział strukturalny (grupy uprzywilejowane i nieuprzywilejowane) staje się słabszym predyktorem działań grupowych (np. aktywizm online czy działania kolektywne), gdyż to właśnie treść podzielanych opinii wydaje się mieć coraz większe znaczenie dla trafnego wyjaśniania owych działań (Hoskin i in., 2019).

Grupy oparte na wspólnych opiniach charakteryzują się wysoką inkluzywnością, a ich działania często mogą być postrzegane jako gest solidarności z innymi grupami (McGarty i in., 2009). Jest to widoczne w przypadkach, gdy potencjalni beneficjenci zmiany społecznej niekoniecznie odzwierciedlają demografię uczestników ruchu (Becker & Tausch, 2015). Ponadto, grupy oparte na podzielanych opiniach mogą angażować osoby, które nie identyfikują się z formalnymi organizacjami ani nie uważają się za aktywistów z ukształtowaną upolitycznioną tożsamością społeczną (Bliuc i in., 2007). Chociaż tak formowane wspólnoty mogą być uznawane za zbyt niestałe, wypełniają one istotną lukę w wachlarzu alternatywnych sposobów tworzenia się poczucia przynależności grupowej (Wright, 2009). Innymi słowy, grupy oparte na obiektywnych kategoriach społecznych są

zazwyczaj stałe i łatwiejsze do zdefiniowania, ale przynależność do nich może stanowić słabszy predyktor zachowań kolektywnych, podczas gdy grupy oparte na opiniach charakteryzują się większą płynnością, są silniej powiązane z danym kontekstem, a przynależność do nich, poprzez spójniejsze normy grupowe, trafnej przewiduje zbiorowe działania. Ogólnie rzecz biorąc, perspektywa tożsamości społecznej w grupach opartych na podzielanych opiniach wydaje się adekwatna do analizy współczesnych wyzwań globalnych, ponieważ trudności te często wykraczają poza obiektywne podziały międzygrupowe.

**Rola tożsamości społecznej w grupach opartych na wspólnych opiniach**

Miarą oddziaływania tożsamości społecznej na jednostki mogą być zmiany w szeroko rozumianych postawach indywidualnych. Postawa jest względnie trwałą tendencją do pozytywnego lub negatywnego wartościowania obiektu, która wpływa na percepcję, przetwarzanie informacji i zachowanie (Fazio, 1989). Zgodnie z teoriami Ajzena (1989) oraz Olsona i Zanna (1993), komponent behawioralny postawy przejawia się w intencji, gotowości lub faktycznym zachowaniu wobec obiektu w danej sytuacji. Postawy nie tylko regulują zachowania własne, lecz mogą także wpływać na postawy i działania innych osób. Zimbardo i Leippe (2004), twierdzą, że pełnią one funkcję organizującą i porządkującą złożone otoczenie, służąc za punkt odniesienia w kształtowaniu decyzji i działań. Tym samym zachowanie może być uznane za odzwierciedlenie postawy, a wyrażanie postaw pozwala na manifestację wartości, przekonań i tożsamości indywidualnej oraz społecznej. W tym miejscu warto rozróżnić pojęcia opinii i postawy, gdyż choć są to powiązane konstrukty, to różnią się pod względem zakresu, trwałości oraz funkcji. Opinia jest specyficzną strukturą poznawczą, która odnosi się do sądu lub przekonania na temat konkretnego zagadnienia, zaś jej charakter jest stosunkowo zmienny (Eagly i Chaiken, 1993). Postawa natomiast jest konstruktem oceniającym, obejmującym szerszy zakres treściowy i bardziej trwałym niż opinia, choć także może ulegać zmianom pod wpływem doświadczeń i interakcji społecznych (Fazio, 1989).

Jak wspomniałam, tożsamość społeczna powoduje istotne implikacje dla funkcjonowania jednostki w społeczeństwie (Turner i in., 1987). W rezultacie wykształcenia poczucia przynależności grupowej ludzie faworyzują grupę własną, przestrzegają norm grupowych oraz podejmują działania mające na celu podtrzymanie jej pozytywnej reputacji. Równocześnie prezentują negatywne postawy wobec członków grupy obcej. Samo

spostrzeżenie obecności grupy obcej wystarcza, by wzmocnić poczucie zagrożenia dla odrębności grupy własnej oraz intensyfikuje identyfikację z nią (Roccas & Schwartz, 1993). Badania dowodzą, że tożsamość grupowa może wpływać na proces podejmowania decyzji (Benjamin i in., 2010), kształtować percepcję otaczającego świata (Hackel i in., 2018) oraz determinować wzorce interakcji z innymi (Chakravarty & Fonseca, 2017).

Mając na uwadze fakt, że najsilniejszym przejawem modyfikacji postawy jest zmiana w wymiarze behawioralnym, analizowałam, jak identyfikacja z grupą przekłada się na zachowania społeczne. W tym zakresie tożsamości społecznej przypisuje się centralną rolę czynnika wyzwalającego działania kolektywne tj. wspólny wysiłek mający na celu poprawę statusu grupy własnej, gdy znajduje się ona w mniej korzystnej pozycji niż grupa obca (Wright, 2009). Działania te przejawiają się głównie w formie uczestnictwa w protestach i masowych demonstracjach, podpisywania petycji, przekazywania środków finansowych organizacjom non-profit, angażowania się w aktywność polityczną (tj. kampanie na rzecz partii politycznych; Teorell i in., 2007) lub konsumpcji politycznej (np. bojkotowanie określonych produktów z powodów etycznych; Stolle i in., 2005).

Związek między tożsamością społeczną a działaniami zbiorowymi został wykazany w licznych modelach teoretycznych, które podkreślają poczucie przynależności jako kluczowy czynnik mobilizacji grupowej. Zgodnie z modelem SIMCA (*Social Identity Model of Collective Action;* van Zomeren i in., 2008), ludzie podejmują działania zbiorowe, gdy doświadczają mocnych afektywnych reakcji na niesprawiedliwość, wierzą w skuteczność działań swojej grupy oraz silnie się z nią identyfikują. Natomiast zgodnie z modelem EMSICA (*Encapsulated Model of Social Identity in Collective Action;* Thomas i in., 2012), im silniejsze jest poczucie niesprawiedliwości i przekonanie o skuteczności działań grupy, tym silniejsza identyfikacja z grupą, przekładająca się na skłonność do uczestnictwa w działaniach zbiorowych. Z kolei nowszy model MOBILISE (*Model of Belonging, Individual Differences, Life Experience and Interaction Sustaining Engagement;* Thomas i in., 2022) sugeruje, że uczestnictwo w działaniach zbiorowych kształtuje się na wielu poziomach: różnice indywidualne oraz doświadczenia życiowe prowadzą do formowania identyfikacji grupowej, która z kolei jest najbliższym predyktorem działań zbiorowych. Zatem niezależnie od przyjętych ram teoretycznych, identyfikacja z grupą jest osadzana w roli bezpośredniej lub pośredniej przyczyny zaangażowania jednostek w wysiłek grupowy.

Współcześnie działania zbiorowe są podejmowanie nie tylko przez społeczności skupione wokół tradycyjnej struktury społecznej, lecz także z uwagi na podzielane opinie. Badania wykazały, że tożsamość grupowa oparta na wspólnej opinii determinuje działania zbiorowe m.in. przeciwko globalnemu ubóstwu (Thomas i in., 2010), wsparcie dla migrantów (Thomas i in., 2020), aktywność na rzecz walki ze zmianami klimatycznymi (Bliuc i in., 2015), a także wsparcie dla osób LGBT (Górska i in., 2017). Jest to potwierdzenie faktu, że ludzie skupieni wokół palących kwestii społecznych formułują i internalizują poczucie identyfikacji z grupą, w ramach której podejmują następnie wspólny wysiłek na rzecz osiągnięcia konkretnych celów, polepszających położenie jej członków.

Większość obecnej wiedzy na temat procesów grupowych jest kształtowana poprzez wgląd w mechanizmy właściwe dla funkcjonowania grup bazujących na obiektywnych kryteriach (np. płeć, narodowość). Wedle mojej najlepszej wiedzy dotychczasowe przeglądy systematyczne nie obejmowały w sposób kompleksowy grup zogniskowanych wokół wspólnych opinii. Zrozumienie, w jaki sposób formowany i utrzymywany jest ten specyficzny tożsamości społecznej, może pomóc przewidzieć, jak i dlaczego w ten właśnie sposób jednostki zachowują się w większych grupach (Agostini i van Zomeren, 2021; Akfirat i in., 2021). Dodatkowo, wcześniejsze badania nie eksplorowały wprost zagadnienia, czy i w jakim stopniu trafne jest zastosowanie konstruktu do interpretacji zachowań grupowych względem nowszych wyzwań społecznych. Innymi słowy, brakuje bezpośredniego potwierdzenia, czy tożsamość społeczna w grupach opartych na wspólnej opinii jest istotnym predyktorem zaangażowania w nowe formy działań w przestrzeni społecznej (np. crowdfunding) i przy udziale nowych aktorów (np. sztuczna inteligencja).

## Cel naukowy rozprawy

Celem niniejszej rozprawy była eksploracja ról, jakie może odgrywać tożsamość społeczna w grupach opartych na wspólnych opiniach dla kształtowania postaw i zachowań społecznych. W oparciu o dotychczasowe wyniki badań wspomniane powyżej postawiłam następujące szczegółowe pytania badawcze:

**Pytanie badawcze 1:** Jakie są moderatory współwystępowania tożsamości społecznej w grupach bazujących na podzielanej opinii z angażowaniem się w różne przejawy współpracy wewnątrz/międzygrupowej (działanie kolektywne, aktywizm online, redukcja uprzedzeń)? Założyłam, że istotnymi moderatorami mogą być następujące czynniki:

1) operacjonalizacja zmiennej tożsamość społeczna (zastosowane skale pomiaru) (**H1**); 2) typ zachowania międzygrupowego (np. działanie kolektywne/ uprzedzenia/ aktywizm online) (**H2**); 3) kwestia społeczna, wokół której zbudowania jest opinia będąca bazą dla tożsamości grupowej (walka z globalnym ubóstwem/ inne) (**H3**); 4) rodzaj partycypacji w zjawisku społecznym (deklaracja/faktyczne zachowanie) (**H4**).

**Pytanie badawcze 2:** Jaką funkcję pełni tożsamość społeczna w grupach bazujących na podzielanej opinii w działaniach kolektywnych w rzeczywistości wirtualnej? Posiłkując się wnioskami z powyższej metanalizy oraz wcześniejszymi badaniami (Rodriguez-Ricardo in., 2018; Wang i in., 2019), podjęłam próbę wykazania, iż crowdfunding stanowi jedną z form działania kolektywnego oraz potwierdzenia, czy tożsamość społeczna w grupach opartych na podzielanych opiniach jest istotnym czynnikiem psychospołecznym leżącym u podstaw uczestnictwa w kampaniach crowdfundingowych. Postawiłam następujące hipotezy: (**H5**) im silniejsza identyfikacja z grupą bazującą na wspólnej opinii wokół danej kwestii społecznej, tym silniejsza intencja uczestnictwa w prospołecznych kampaniach crowdfundingowych oraz (**H6**) zależność między tożsamością społeczną opartą na opiniach a udziałem w kampaniach crowdfundingowych różni się w zależności od typu uczestnictwa (deklaracja vs. faktyczne zaangażowanie w kampanię).

**Pytanie badawcze 3:** Jaką rolę odgrywa tożsamość społeczna w grupach bazujących na podzielanej opinii w kształtowaniu postaw wobec SI? W tym celu dokonałam analizy czynników psychospołecznych istotnych dla określenia granic akceptacji sztucznej inteligencji (SI) przez ludzi. Uwzględniłam także charakterystykę podmiotu SI, tj. kontrolowalność stanów mentalnych, które SI jest w stanie symulować, przewidując, że kontrolowalność stanów mentalnych może być skorelowana z nastawieniem wobec SI wśród zwolenników lub przeciwników rozwoju SI. Sformułowałam następujące hipotezy: (**H7**) postawa wobec SI (pozytywna lub negatywna) jest powiązana z siłą identyfikacji z grupą zwolenników lub przeciwników rozwoju SI (**H8**) ludzie wykazują bardziej negatywne postawy wobec SI, której stany mentalne są mniej kontrolowalne (płynniejsze i w większym stopniu zdolne do działania poza algorytmicznymi ograniczeniami); (**H9**) tożsamość społeczna w grupie opartej na wspólnej opinii (zwolennicy lub przeciwnicy rozwoju SI) współwystępuje w mniejszym lub większym nasileniu z postawami wobec SI w zależności od tego, jakie stany mentalne SI jest w stanie symulować.

Powyższe hipotezy przetestowałam w serii sześciu badań tworzących spójny cykl trzech publikacji pierwszoautorskich, których zawartość skrótowo omawiam poniżej.

## Metoda i wyniki badań

Szczegółowe omówienie metod, wyników oraz dyskusji zawarte jest w poszczególnych artykułach.

**Publikacja 1: Monik, A.**, & Parzuchowski, M. (2024a). How Do Opinions Power the Group Up? A Critical Review of Social Identity Concepts in Opinion-Based Groups. *Identity*, 1–23. https://doi.org/10.1080/15283488.2024.2389432

W ramach pierwszej publikacji przeprowadziłam metaanalizę oraz przegląd narracyjny tożsamości społecznej w grupach opartych na wspólnych opiniach i jej oddziaływania na relacje międzygrupowe. Poprzednie metaanalizy koncentrowały się na perspektywie identyfikacji grupowej w kontekście działań zbiorowych (zob. Agostini i van Zomeren, 2021; Akfirat et al., 2021), sugerując, że jest to adekwatny konstrukt do wyjaśniania współczesnych relacji międzygrupowych. Jednakże, dotychczasowe przeglądy nie zweryfikowały tego typu tożsamości grupowej w szerszym ujęciu niż działania kolektywne, ani też nie zgłębiały w sposób kompleksowy zależności z innymi czynnikami psychologicznymi.

**Metoda:** W ramach analizy wykorzystałam metodę ilościową (metaanaliza) i metodę jakościową (przegląd narracyjny). Selekcji artykułów dokonałam na podstawie następujących słów kluczowych: tożsamość społeczna (lub synonim) oraz grupa oparta na podzielanej opinii (lub synonim). W analizach uwzględniłam 32 artykuły opisujące wyniki 45 badań ze 124 niezależnymi efektami, obejmujące 300 063 obserwacje. Baza danych została udostępniona na platformie OSF pod linkiem https://osf.io/g6jf5/.

**Wyniki:** Metaanaliza wykazała pozytywny związek średniej siły między tożsamością społeczną a zjawiskami międzygrupowymi. Na jej podstawie zidentyfikowałam trzy istotne moderatory odpowiedzialne za całkowitą zmienność wielkości efektów: 1) operacjonalizacja zmiennej „tożsamość społeczna”; 2) typ działania grupowego; 3) rodzaj partycypacji w zjawisku społecznym (deklaracja/faktyczne zachowanie). Przegląd narracyjny dostarczył dowodów na to, że proces formowania się grup opartych na wspólnych opiniach badano głównie z perspektywy współpracy (działania zbiorowego), nie zaś pozytywnego kontaktu międzygrupowego (redukcji uprzedzeń). Dominujący kontekst, wokół którego koncentrowały się opinie grupowe, nabrał w ostatnich latach bardziej społecznego

charakteru (vs. politycznego), koncentrując się na transnarodowym aktywizmie oddolnym (np. protesty na rzecz ochrony klimatu, petycje na rzecz walki z globalnym ubóstwem). Badania w głównej mierze traktowały identyfikację społeczną jako predyktor zachowań grupowych, a nie ich efekt. Wykazałam także niejednoznaczność w operacjonalizacji samego konstruktu.

**Dyskusja:** Koncepcja tożsamości społecznej w grupach opartych na wspólnych opiniach jest istotnym czynnikiem wyjaśniającym mechanizmy relacji międzygrupowych. Należy podkreślić, że pozwala na wgląd w procesy zachodzące w kontekście kluczowych wyzwań globalnych, z jakimi mierzą się współczesne społeczeństwa. Wedle mojej wiedzy, była to pierwsza metaanaliza oraz przegląd narracyjny na tak szeroka skalę na temat identyfikacji z grupą osób o podobnych opiniach.

**Publikacja 2: Monik, A.**, & Parzuchowski, M. (2024b). Mind the Like-Minded. The Role of Social Identity in Prosocial Crowdfunding. *Social Science Computer Review, 42*(1), 103-121. https://wdoi.org/10.1177/08944393231173889

W drugim artykule starałam się poszerzyć wiedzę na temat mechanizmów działania tożsamości społecznej opartej na wspólnej opinii w Internecie. W tym celu wykorzystałam kontekst prospołecznych kampanii crowdfundingowych, skupionych wokół kwestii klimatycznych i inkluzywności kulturowej. Dotychczasowe badania (Rodriguez-Ricardo in., 2018; Wang i in., 2019), uwzględniały pomiar tożsamości społecznej w odniesieniu do intencji udziału w crowdfundingu, jednakże nie były skupione na grupach ukonstytuowanych wokół wspólnych opinii.

**Metoda:** Przeprowadziłam trzy pre-rejestrowane badania korelacyjne ($N$ = 823) za pomocą metody kwestionariuszowej (linki do pre-rejestracji: Badanie 1, Badanie 2, Badanie 3). Osoby uczestniczące w dwóch pierwszych badaniach zostały zrekrutowane za pośrednictwem platformy *Mechanical Turk*. Jedynym warunkiem uczestnictwa w badaniu było biegłe posługiwanie się językiem angielskim. Osoby uczestniczące otrzymały gratyfikację o wartości równej ok. 1 zł. Do pomiaru zmiennej „tożsamość społeczna" wykorzystałam zaadaptowaną do kontekstu pięcioitemową skalę autorstwa Bliuc i wsp. (2007; Badania 1 i 3) oraz 14-itemową skalę Leacha i wsp. (2008; Badanie 2). W Badaniach 1 i 2 zmienna zależna miała charakter deklaratywny, tj. mierzono intencję dokonania wpłaty w ramach fikcyjnych kampanii, natomiast w Badaniu 3 wzięli udział faktyczni użytkownicy platformy crowdfundingowej. Bazy danych zostały udostępnione na platformie OSF pod

linkiem https://osf.io/kab93/.

**Wyniki:** Analiza korelacji w Badaniu 1 wykazała, że im wyższy poziom tożsamości społecznej z grupą wspierającą walkę ze zmianami klimatycznymi, tym silniejsza intencja uczestnictwa w kampanii crowdfundingowej. Badanie 2 zreplikowało efekt w kontekście kampanii skierowanej do osób wspierającej różnorodność kulturową. W Badaniu 3, gdzie analizowano faktyczne wpłaty, korelacja była znacząco niższa.

**Dyskusja:** Wyniki badań wskazują, że intencja wsparcia kampanii crowdfundingowych jest powiązana z tożsamością grupową. Innymi słowy, członkowie grup opartych na wspólnej opinii rozwijają poczucie identyfikacji społecznej, co może skutkować udziałem w działaniu kolektywnym online na rzecz dobra grupy. Co istotne, relacja między tożsamością grupową a działaniem kolektywnym różniła się w zależności od rodzaju uczestnictwa: przewidywane zaangażowanie vs. rzeczywiste uczestnictwo w kampanii.

**Publikacja 3: Monik, A.**, & Parzuchowski, M. (2025). AI in the Eye of the Beholder: How Group Membership and AI Controllability Shapes User Acceptance. https://doi.org/10.5281/zenodo.14927492 (preprint)

W trzecim manuskrypcie analizowałam poziom akceptacji SI w zależności od warunków współpracy człowieka z maszyną oraz rodzaju modelu umysłu SI. Jako że mechanizmy kategoryzacji społecznej zostały zaobserwowane również w przypadku kategoryzacji obiektów sztucznych, tj. niebędących przedstawicielami gatunku ludzkiego (Bernotat i in., 2019; Eyssel i Kuchenbrandt, 2012; Vanman i Kappas, 2019), celem było zwalidowanie mechanizmów grupowych w kontakcie z SI. Sprawdziłam, czy interakcja z SI może wyzwolić poczucie przynależności do grupy opartej na wspólnych opiniach na temat jej rozwoju. Zbadałam także, jaka jest relacja między identyfikacją z taką grupą i postawami wobec SI oraz jakie znaczenie odgrywają w tej relacji cechy samej technologii.

**Metoda:** Przeprowadziłam pre-rejestrowane badanie korelacyjne ($N$ = 342) oraz quasi-eksperymentalne ($N$ = 405) metodą kwestionariuszową (linki do pre-rejestracji: Badanie 1, Badanie 2). W Badaniu 1 udział wzięli studenci za pośrednictwem platformy Sona, natomiast w Badaniu 2 osoby uczestniczące zostały zrekrutowane przez panel badawczy *Prolific*. Jedynym warunkiem uczestnictwa było biegłe posługiwanie się językiem angielskim. Osoby biorące udział w Badaniu 1 otrzymały gratyfikację w postaci wkładu do zaliczenia kursu studenckiego, a w Badaniu 2 wynagrodzenie pieniężne (ok. 4 zł).
W Badaniu 1 uczestnicy oceniali swoją postawę wobec aplikacji wzorowanej na Chat GPT,

która prezentowała zdolności do symulowania różnych stanów mentalnych. W Badaniu 2 również pytano o postawę względem aplikacji, jednak tym razem manipulowano stanami mentalnymi aplikacji, które wskazywały na mniejszą (symulującą posiadanie emocji) lub większość kontrolowalność (symulującą posiadanie intencji; Cusimano i Goodwin, 2019). Dodatkowo, w Badaniu 2 pojawiła się instrukcja aktywizująca poczucie tożsamości społecznej poprzez opis wspólnego zadania grupowego do wykonania we współpracy z aplikacją. Do pomiaru zmiennej „tożsamość społeczna" wykorzystałam zaadaptowaną do kontekstu pięcioitemową skalę autorstwa Bliuc i współpracowników (2007). Bazy danych zostały udostępnione na platformie OSF pod linkiem https://osf.io/b2kyc/.

**Wyniki:** Dane zebrane w Badaniu 1 wskazały, że silniejsze poczucie tożsamości z grupą zwolenników rozwoju SI współwystępuje z bardziej akceptującą postawą wobec aplikacji. Dodatkowo, przeprowadziłam analizę regresji wielokrotnej w celu zbadania predyktorów akceptacji SI, uwzględniając dane socjodemograficzne, zmienne psychologiczne i psychospołeczne. Model uwzględniający czynniki grupowe istotnie poprawił dopasowanie w porównaniu z modelem opartym na komponentach indywidualnych. W Badaniu 2 zreplikowałam te wyniki oraz zaobserwowałam, że spostrzegana kontrolowalność stanów mentalnych SI jest moderatorem relacji między tożsamością grupową a postawą wobec SI. Mianowicie, w grupie osób o wysokim poziomie identyfikacji ze zwolennikami SI postawy wobec SI były bardziej akceptujące w przypadku interakcji z aplikacją opisaną jako charakteryzująca się wysoką kontrolowalnością stanów umysłowych (symulującą posiadanie Intencji) niż w przypadku niższej kontrolowalności stanów umysłowych (symulująca posiadanie Emocji).

**Dyskusja:** Tożsamość społeczna w grupie zbudowanej na wspólnej opinii jest konstruktem, który może pomóc w zrozumieniu procesów grupowych, aktywowanych w interakcji człowieka ze sztuczną inteligencją. Kontakt z SI sprzyja autokategoryzacji przez pryzmat grupy zwolenników lub przeciwników rozwoju SI. W rezultacie, podobnie jak w relacjach międzyludzkich, poczucie wspólnoty z daną grupą może kształtować lub być kształtowane przez pozytywne lub negatywne postawy wobec SI. Specyfika tożsamości społecznej zbudowanej na wspólnej opinii wobec rozwoju SI adekwatnie wpisuje się w kontekst nowych wyzwań globalnych tj. coraz większej obecności podmiotów SI w naszym życiu codziennym. Co ważne, czynniki psychospołeczne (identyfikacja społeczna) pozostają istotnym predyktorem postaw wobec SI, nawet przy kontroli czynników indywidualnych (osobowości, samooceny, poczucia skuteczności, znajomość technologii).

## Dyskusja ogólna

W niniejszym autoreferacie zaprezentowałam syntetyczne omówienie cyklu trzech publikacji pierwszoautorskich, w których analizowałam rolę tożsamości społecznej w grupach opartych na wspólnych opiniach, w kontekście procesu kształtowania postaw oraz zachowań społecznych. Poprzez serię badań o różnej metodologii (od metaanalizy, przez przegląd narracyjny, po badania korelacyjne oraz quasi-eksperymentalne) potwierdziłam, że podzielane opinie mogą stanowić solidną podstawę do ukształtowania identyfikacji grupowej, która to przekłada się na różne przejawy dynamiki międzygrupowej, ze szczególnym uwzględnieniem relatywnie nowych zjawisk społecznych, tj. udziałem w kampaniach crowdfundingowych i interakcji ze sztuczną inteligencją.

Po pierwsze, przeprowadziłam metaanalizę i przegląd narracyjny (Publikacja 1) w celu zwalidowana ogólnej mocy predykcyjnej tożsamości społecznej w grupach bazujących na wspólnej opinii w odniesieniu do zjawisk społecznych. Wyniki wykazały, że silniejsza identyfikacja z tego rodzaju grupą będzie współwystępowała z większym nasileniem i częstotliwością zaangażowania w różne przejawy dynamiki grupowej. Zgodnie z postulatami teorii tożsamości społecznej i teorii autokategoryzacji wspólna opinia stanowiła kanwę podziału na grupę własną i obcą, przyczyniając się do preferencji grupy własnej i większej skłonności do podejmowania działań na jej rzecz. Działania te w dużej mierze odnosiły się do form aktywizmu społecznego wynikającego ze współczesnych zmian i wyzwań o charakterze transnarodowym. Te zaś wykraczają poza tradycyjne ramy rozumienia grup jako organizmów społecznych opartych na obiektywnych kryteriach socjo-demograficznych. Tożsamość grupowa osadzona w konkretnym kontekście społecznym adresuje procesy grupowe w przypadkach, w których nie występuje wspólne zagrożenie ani wcześniej istniejąca tożsamość społeczna (Thomas i in., 2015). Odwołanie do wspólnej opinii zamiast do tożsamości nadrzędnej lub narodowej może sprzyjać bardziej inkluzywnym relacjom (Smith i in., 2015), a tym samym tworzyć platformę do masowej mobilizacji i integracji.

Po drugie, poszerzyłam wiedzę o czynnikach pośredniczących we współwystępowaniu identyfikacji z grupą opartą na wspólnej opinii (Publikacja 1) i różnych formach dynamiki grupowej. Wyniki metaanalizy potwierdziły hipotezę (**H4**), zgodnie z którą rodzaj partycypacji w zachowaniu grupowym okazał się istotnym moderatorem wspomnianej zależności. Deklaracje udziału w aktywnościach grupowych wykazały

silniejszy efekt niż faktyczne zachowania, co sugeruje funkcjonowanie mechanizmów analogicznych jak w przypadku grup bazujących na podziale nominalnym (van Zomeren i in., 2008). Może to wynikać z obiektywnych barier uczestnictwa w konkretnych działaniach, potrzeby aprobaty społecznej lub różnic indywidualnych w poziomie motywacji i samoregulacji (Rhodes i Dickau, 2012). Ponadto, potwierdziłam hipotezę (**H1**) dotyczącą moderacyjnej roli stosowanych skal pomiaru tożsamości grupowej. Niehierarchiczna struktura konstruktu (wyróżniająca równorzędne komponenty) wykazała silniejszą relację z działaniami grupowymi niż hierarchiczna struktura (wyróżniająca dwa nadrzędne komponenty: *self-definition* i *self-investmen*t oraz pięć wymiarów podrzędnych), co stanowi ważny wkład w dyskusję wokół trafności narzędzia pomiaru identyfikacji grupowej analizowanego rodzaju. Wyniki te sugerują, że przyjęcie modeli niehierarchicznych może przyczynić się do lepszego zrozumienia zachowań grupowych. Warto również pochylić się nad formami działania grupowego, które zgodnie z przewidywaniem miały także stanowić istotny moderator analizowanej relacji (**H2**). Mimo, że silniejsze efekty otrzymano dla działań kolektywnych niż innych zachowań grupowych (np. redukcja uprzedzeń), należy podkreślić wartość eksplanacyjną tożsamości społecznej też w odniesieniu do innych form. Oznacza to, że ten rodzaj identyfikacji grupowej może istotne wzbogacać rozumienie zjawisk społecznych wykraczających poza standardowe ramy działań zbiorowych. Obszarem, który wydaje się prezentować największy potencjał w tym zakresie jest tematyka uprzedzeń i dyskryminacji, gdzie siła efektu była znacząca, zaś liczba przeprowadzonych dotychczas badań wyraźnie mniejsza. Nie potwierdziłam natomiast hipotezy (**H3**) mówiącej o moderacyjnej roli kwestii społecznej (walka z globalnym ubóstwem/ inne), wokół której zbudowana jest opinia będąca bazą dla tożsamości grupowej. To istotny wniosek, obrazujący, że niezależnie od treści samej opinii identyfikacja społeczna pozostaje niezmiennym czynnikiem modelującym procesy grupowe.

Analiza wykazała także istotne kierunki dla przyszłych badań. Dotychczasowe badania najczęściej przyjmują podejście statyczne, nie zagłębiając się w procesy poznawcze związane ze zmianami kategoryzacji siebie jako członka kilku społeczności jednocześnie. A to, biorąc pod uwagę polaryzację grup opartych na wspólnych opiniach, może być mechanizmem kluczowym (zob. Zinn i in., 2022) szczególnie w mediach społecznościowych (Maciuszek i in., 2021). Warto także wziąć pod uwagę konkretne znaczenie danej opinii dla jednostki tj. co dokładnie rozumie poprzez hasło różnorodność kulturowa czy zmiany klimatyczne (Bliuc i Chidley, 2022; Turner-Zwinkels i van Zomeren,

2021). W związku z tym należałoby zgłębić kwestię, w jaki sposób różnorodność treści kryjących się pod parasolem zbiorowej opinii wpływa na dynamikę grupy. Ponadto, warto pochylić się także nad rolą źródła samych opinii, wokół których konstytuują się grupy tj. nad wartościami czy podstawami moralnymi (Zaller, 1991). Mimo że stanowią one fundament opinii to kontekst społeczny, kultura czy środki przekazu mogą moderować ich oddziaływanie na opinie w ważnych kwestiach społecznych (zob. Nelson, 2004; Petersen i in. 2011).

Po trzecie, potwierdziłam, że konstrukt stanowi adekwatne narzędzie interpretacji indywidualnych motywów działań grupowych, stojących za mobilizacją społeczną, która ma źródło w nowych wyzwaniach społecznych (Publikacja 2). W serii badań przeanalizowałam zróżnicowany zakres tematyczny owych wyzwań (zmiana klimatu oraz inkluzywność kulturowa), w ramach których mobilizacja społeczna zachodziła w świecie wirtualnym. Identyfikacja z grupą osób o podobnej opinii była istotnym czynnikiem psychospołecznym leżącym u podstaw uczestnictwa w kampaniach crowdfundingowych (**H5**). Co więcej, efekt ten był silniejszy dla deklarowanego udziału niż faktycznego zaangażowania (**H6).** Wyniki te są zgodne z założeniami modeli działania kolektywnego, w których tożsamość społeczna odgrywa kluczową rolę (zob. np. Thomas i in., 2022). Dodatkowo, potwierdziłam wnioski z licznych badań, świadczących o tym, że identyfikacja z grupą jest predyktorem proekologicznych zachowań w gospodarstwach domowych (Fielding i Hornsey, 2016; Keshavarzi i in., 2021), gotowości obywateli do integracji z imigrantami (Pinto i in., 2020) czy poparcia dla równości rasowej (Selvanathan i in., 2018). Ponadto, otrzymane wyniki stanowią argument za zasadnością włączania koncepcji tożsamości grupowej opartej na opiniach w badania nad motywacjami aktywistów społecznych w przestrzeni internetowej. Podsumowując, warto zauważyć, że pomimo braku fizycznej bliskości osoby o podobnych opiniach, są w stanie zorganizować się i mobilizować innych na szeroką skalę (Spears i Postmes, 2015).

Po czwarte, wykazałam, że tożsamość społeczna w grupach bazujących na podzielanej opinii odgrywa istotną rolę wobec postaw względem odnoszących się do nowych uczestników życia społecznego w postaci podmiotów opartych na SI (Publikacja 3). Potwierdziłam założenie (**H7**), zgodnie z którym postawa wobec SI jest skorelowana z poziomem identyfikacji z grupą zwolenników i przeciwników rozwoju SI. Ponadto, zweryfikowałam fakt, że ludzie wykazują bardziej negatywne postawy wobec SI, której

stany mentalne są mniej kontrolowalne (bardziej płynne i zdolne do działania poza algorytmicznymi ograniczeniami) (**H8**). W konsekwencji zaprezentowałam efekt interakcji, jaki zachodzi po uwzględnieniu charakterystyki SI. Mianowicie, zgodnie z przewidywaniem (**H9**) tożsamość społeczna w grupie zwolenników SI współwystępuje w mniejszym lub większym nasileniu z postawami wobec SI w zależności od poziomu kontrolowalności stanów mentalnych, które symuluje SI. Wnioski sugerują, że grupa oparta na wspólnej opinii wydaje się główną kategorią inkluzywną, która pozycjonuje podmioty zasilane SI jako potencjalnych członków grupy własnej. W związku z tym, podczas interakcji z SI ludzie są w stanie aktywizować odmienną percepcję grupy własnej, co może prowadzić do głębszej integracji technologii ze społeczeństwem (Deligianis i in., 2017). Dodatkowo, podmioty SI o niższej kontrolowalności mogą być postrzegane przez osoby silnie identyfikujące się z grupą jako źródło potencjalnych barier w osiągnięciu celu i utrzymaniu spójności grupy. Uzyskane wyniki sugerują, że w interakcjach z SI odtwarzane są podobne mechanizmy psychospołeczne, jak w relacjach międzyludzkich (Reeves i Nass, 1996).

**Ograniczenia**

Przedstawiony tu cykl badań ma oczywiście szereg ograniczeń. Po pierwsze, w żadnym z badań nie kontrolowano roli tożsamości społecznych opartych na kategoriach obiektywnych (np. płeć lub narodowość). Jednakże, każdorazowo w ramach instrukcji dla osób uczestniczących czy prezentowanych treści aktywizowano identyfikację z grupą opartą na konkretnej opinii i w danym kontekście społecznym, co powinno zapewnić najsilniejsze wzbudzenie tego typu tożsamości. Co ważne, w artykułach włączonych do przeglądu ilościowego i jakościowego również przeważnie nie kontrolowano tego czynnika. Niemniej jednak w przyszłych badaniach warto uwzględnić ten wymiar, aby wykluczyć jego ewentualny wpływ na analizowane postawy. Inną zmienną, mogącą oddziaływać na kształtowanie się tożsamości społecznej jest orientacja polityczna. Należałoby wziąć pod uwagę jej ewentualny efekt, jednakże jest ona powiązana z szerszym zbiorem przekonań niż opinia w konkretnej kwestii społecznej.

Po drugie, w ramach żadnego z badań nie zwalidowano w sposób precyzyjny, jakie znaczenie i treści są przypisywane danej opinii przez osoby uczestniczące. Innymi słowy, posługując się kategorią ,,rozwoju SI" czy ,,zmian klimatycznych" założono pewną domniemaną zgodność przypisanych tym hasłom znaczeń. Biorąc pod uwagę stopień rozpowszechnienia wspomnianych zagadnień, przyjmuje się więc, że są one zrozumiałe

i wywołują skojarzenia z podobną ideą przewodnią. Jednak heterogeniczność lub homogeniczność owego zakresu znaczeniowego może stanowić kolejny czynnik różnicujący efekty związane z analizowanym konstruktem. Warto ten aspekt uwzględnić w kolejnych badaniach.

Ponadto, badania własne realizowane były przy użyciu form samoopisowych za pośrednictwem platform online. Realizm sytuacyjny byłby zapewne większy, gdyby procedura badania zakładała faktyczną obecność grupy innych osób. Symulacja perspektywy grupowej nadal wymagałaby jednak utrzymania warunków wirtualnych, co jest naturalnym otoczeniem zarówno w przypadku crowdfundingu, jak i stosowania narzędzi zasilanych przez SI. Dodatkowo, w przypadku Publikacji 3 opracowanie aplikacji i zaaranżowanie rzeczywistej interakcji z SI mogłoby zwiększyć trafność pomiaru. W przyszłych badaniach należałoby zaadresować tę kwestię i zapewnić dodatkowe elementy procedury badawczej, które miałyby na celu zintensyfikowanie aktywizacji grupowego wymiaru działania.

**Podsumowanie**

Omawiany cykl badań wzbogaca obszar psychologii społecznej o pogłębioną wiedzę z zakresu mechanizmów grupowych. W ramach trzech publikacji wykazałam, jaką rolę odgrywa tożsamość społeczna w poznaniu społecznym oraz w relacjach międzygrupowych. Wedle mojej wiedzy jest to pierwsza tak kompleksowa analiza identyfikacji z grupą opartą na wspólnej opinii, dowodząca jego znaczenia w kształtowaniu postaw i zachowań wobec współczesnych wyzwań społecznych. Poczucie przynależności do grupy osób o spójnej opinii w konkretnej kwestii jest katalizatorem nie tylko działań kolektywnych, lecz także szerszego wachlarza form dynamiki grupowej, jak chociażby redukcja uprzedzeń czy aktywność inspirowana wiarą w teorie konspiracyjne. Co ważne, ten relatywnie niedawno zdefiniowany typ tożsamości społecznej stanowi trafne narzędzie interpretacji nowych przejawów funkcjonowania grup w wymiarze wirtualnym. Wyjaśnia on motywy indywidualne stojące za udziałem w prospołecznych kampaniach crowdfundingowych, które wiążą się z wymiernym zaangażowaniem w postaci wpłaty konkretnych środków finansowych na wspólny cel. Identyfikacja z grupą ukonstytuowaną wokół podzielanej opinii pozwala również przewidywać możliwe kierunki działań i postaw społecznych wobec nieuchronnego rozwoju technologicznego. Dzięki inkluzywnej naturze grupa bazująca na wspólnej opinii stanowi jedną z niewielu kategorii opisu rzeczywistości społecznej, w której

interakcje odbywają się z grupą obiektów wykraczających poza rodzaj ludzki. Tożsamość społeczna w grupach opartych na wspólnej opinii jest zatem istotnym predyktorem zachowań międzygrupowych, mobilizującym do zaangażowania w działania zbiorowe, motywującym do prospołecznych inicjatyw w przestrzeni wirtualnej oraz wzmacniającym akceptację nowych technologii, takich jak sztuczna inteligencja. Zbieżność opinii może zatem wskazywać kierunki rozwoju relacji grupowych, będąc jedną z odpowiedzi na dylemat hiperuspołecznienia.

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## Załączniki

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# How Do Opinions Power the Group Up? A Critical Review of Social Identity Concepts in Opinion-Based Groups

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**ABSTRACT**

We conducted a meta-analysis and a narrative review of the concept of the social identity in opinion-based groups and its impact on intergroup relations. The following research questions were explored: what is the general predictive value of the construct in the realm of group dynamics? How does the process of identity shaping unfold? What determines the intensity of identification with like-minded people? What are the possible consequences of such identification? The quantitative results identified 45 studies with 124 independent effect sizes, representing 30063 observations. Analyses revealed a medium positive relationship between social identity and intergroup phenomena ($r = .46$) with a high degree of heterogeneity and identified three significant moderators responsible for the total observed variance in effect sizes. The narrative review showed that among main paths of forming intergroup connections, opinion-based groups were investigated mainly through cooperation (collective action) rather than positive intergroup contact (prejudice reduction). The dominant context shifted from political to social issues, focusing on transnational grassroots activism. Research predominantly explored social belonging as a predictor of ingroup intentions, neglecting the factors contributing to its development. We highlight vagueness in the operationalization of this phenomenon. Our analysis identifies significant gaps for future research.

**KEYWORDS**

Social identity; group identification; opinion-based groups; intergroup relations

## Introduction

Social psychology has offered various findings explaining when groups work together or oppose each other. Some people vote or choose not to vote, while others have strong opinions about vaccinations and either support or protest against them. People also form bonds with immigrants or avoid contact with them, and they may use LGBTQ+ inclusive language or boycott certain pronouns based on what they perceive others would think. This article examines how social identity in opinion-based groups impacts intergroup dynamics, providing a comprehensive and critical analysis of the current literature on this topic.

The sense of belonging to the group has meaningful implications for how one operates within society. The intergroup dynamics framework indicates that group affiliations can influence the pattern in which individuals think, experience emotions, and behave (Tajfel, 1978). While each psychologically healthy person may possess a unique and multifaceted personal identity, they also have the capacity to belong to multiple groups, allowing them to access a diverse set of social identities (Thomas et al., 2017). Identification with a particular group is "'*that part of an individual's self-concept which derives from his knowledge of his membership of a social group together with the value and emotional significance attached to that membership*'" (Tajfel, 1978, p. 63). Consequently, humans favor their own

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group, follow group rules, and engage in actions to uphold the group's reputation. Indeed, a prominent social identity can influence decision-making (Benjamin et al., 2010), structure the perception of the surrounding world (Hackel et al., 2018), or impact how one interacts with others, which is particularly dependent on whether they share the same group affiliation (Chakravarty & Fonseca, 2017).

There is no doubt about the core definition and relevance of social identity. However, there are several conceptualizations discussing its structure and basic components. Initially, attempts were made to capture the sense of group belonging as a one-dimensional construct. However, this excessive generalization has not gained empirical support (for reviews, see Ashmore et al., 2004). Latest research provides support to expect that it comprises several elements, however it has not definitively determined their exact quantity and characteristics. Most researchers have adopted three main components of in-group identification such as cognitive factor indicating self-perception as an in-group member (e.g. "self-categorization"/"centrality"), affective factor including positive feelings associated with membership (e.g. "in-group affect"/"evaluation/attraction"/"group self-esteem") and behavioral factor regarding group cohesion and commitment (e.g. "in-group ties"/"commitment") (see Cameron, 2004; Ellemers et al., 1999). Leach and colleagues (2008) demonstrated that the construct also has a more hierarchical structure, developing a number of components and combining them into two main dimensions. Specifically, self-definition as a group member involves sharing commonalities and similarities (i.e., individual self-stereotyping and in-group homogeneity) and self-investment in a favorably regarded group. This includes the salience of the group with which one has bonded, encompassing solidarity, satisfaction, and centrality. Alternatively, Roccas and colleagues (Roccas et al., 2008) integrated four modes of identification distinguishable for large social categories: (1) importance (self-categorization), (2) commitment (acting for the good of the group), (3) deference (subordination) and (4) superiority (exaggerated in-group favoritism). Despite the lack of consensus on the most accurate approach, researchers have been discussing not only the context, but also the specificity of the group. Considering the apparent role of group membership, we center our analysis on the social identity constituted on shared views.

In recent years, social identity based on a similar worldview has been accentuated as one of the concepts accounting for individual-level social behaviors (Louis et al., 2020). With a growing number of social interactions and enhancing opinion homogeneity over time (Flamino et al., 2021) it has become an integral part of the modern social world. A sense of belonging to a group built on shared opinions is not merely a consequence of objective assignment to a particular socio demographic category (e.g., nationality or gender) but is also linked with genuine commitment, reflecting actual beliefs and attitudes (see Weinstein & Ryan, 2010). For example, if two people are in agreement about climate change, they may form an alliance that will influence their environmental behavior. As such, understanding how these identities are formed and maintained could help us predict how individuals might act within larger groups. Hence, the property not only facilitates migration between different communities and broadens intergroup dynamics but can also play a crucial role in inspiring expressions of social activism. Previous meta-analyses have focused on the perspective of group identification through a collective action lens (see Agostini & van Zomeren, 2021; Akfırat et al., 2021), proving that it is an adequate tool for explaining current social challenges in intergroup relations.

However, recent reviews focusing solely on the predictive value did not delve into the social identity of like-minded people as an independent construct, nor did they fully explore the possible dimensions and pathways it may cross with other psychological factors. The above-mentioned associations of group belongingness have rarely been studied among groups of like-minded individuals, but almost exclusively among groups constituted on nominal and objective divides (men vs. women or immigrants vs. indigenous people). This means that most of the current knowledge about group processes is only shaped by expertise coming from nominal group functioning. We will address this issue in the current review.

In general, the goal of this article is to conduct a critical review of the current state of knowledge regarding the role of social identity in opinion-based groups in intergroup relations. We aim to

explore the following research questions: what is the general predictive value of the construct in the realm of group dynamics? How does the process of identity shaping unfold? What determines the intensity of identification with a like-minded group? What are the possible consequences of such identification? Importantly, we also diagnose meaningful gaps in the literature that need to be addressed by future research to craft effective responses to critical social challenges.

To facilitate understanding, our paper is organized in the following way. First, it introduces the conceptual frames of social identity in opinion-based groups. Secondly, it outlines the methodology approach adopted for the review. Thirdly, the paper presents the main findings of the conducted review. Finally, the paper synthesizes and discusses the results as well as directions for further investigations.

## *Defining the social identity in opinion-based groups*

The concept of social identity in opinion-based groups represents a relatively new development in the intergroup relations literature. In the past, researchers have mostly examined social identity in advantaged and disadvantaged groups or politicized collective identity. Studies have primarily focused on identities rooted in social categories, such as ethnicity, gender, religion, nation, or affiliation with an institution or political party (see van Zomeren et al., 2008). While these types of identity membership are important, it tends to be a relatively weak predictor of commitment to action (de Weerd & Klandermans, 1999). Social identification established on a shared worldview fosters a sense of belonging when a particular stance on a specific social issue is perceived as an integral part of the collective aspect of the self (Thomas & McGarty, 2009). Whereas opinions and attitudes have traditionally been characterized as individual cognitive constructs, a social identity framework regards worldviews as "windows on identity" (Hogg & Smith, 2007, p. 89), shaped by one's affiliations with various groups. Theoretically, the distinction between simply holding a viewpoint or attitude and aligning with a group based on that opinion lies in the perception that, in the latter scenario, individuals who share the same view are seen as part of the same collective. In other words, people recognize their beliefs as a substantial basis for delineating their collective sense of self. Overall, social identity enables connections to be made with like-minded individuals, sustaining a sense of unity and common purpose.

One of the strengths of opinion-based groups is their ability to transcend conventional social categorizations (such as nationality or gender), allowing both advantaged and disadvantaged groups to bond through a shared belief about "how the world should be" (McGarty et al., 2014). While belonging to a specific nominal social category (e.g., gender or age) may be highly pertinent to a specific issue (e.g., when protesting against regulations on gender equity or retirement age), exclusively concentrating on these categories can potentially lead to an oversight of the contextual significance of such membership (a more global context, e.g., the climate crisis is affecting people regardless of their gender or age). This approach may exclude relevant moderating factors and fail to capture what holds the most psychological importance for group members at that particular moment (Musgrove & McGarty, 2008). The ostensible intergroup context (of structurally advantaged and disadvantaged people) is recognized as less salient as the content of like-minded groups appears fundamental to explaining social behavior (Hoskin et al., 2019). Actions rooted in common ideas can often be seen as a gesture of solidarity with the out-group (Becker & Tausch, 2015). This is evident in a case where those who stand to benefit from social change may not necessarily mirror the demographics of the movement's participants. Also, opinion-based groups can engage individuals who join the members of collectives, but do not identify with formal organizations or do not identify as activists (Bliuc et al., 2007). Even though communities built around similar worldviews can be perceived as malleable, reactive attributes that group members negotiate in context (Louis et al., 2020), it simultaneously provides an alternative way of creating a motivating, common in-group membership (Wright, 2009). In general, the perspective of group membership centered around

individuals with similar beliefs appears to be the most suitable for analyzing contemporary global challenges, as these obstacles often extend beyond nominal intergroup divides.

## Scope and method of the reviews

To explore the research questions, we undertook qualitative as well as quantitative examination, namely meta-analysis and narrative literature review. We decided to combine statistical technique with descriptive method, to provide not only the reliable effects estimates, but also to address more expansive and theoretical inquiries (Baumeister & Leary, 1997).

To select the studies eligible for inclusion in the meta-analysis, we applied the following criteria. Our first criterion was that the studies should have enclosed the measure of social identification in opinion-based groups. Some studies focusing on social identity in the community of like-minded people, were not included in this part of the review, since they were qualitative (e.g. Smith et al., 2015). Secondly, we make sure that studies contain correlation coefficient *r* (Person's or Spearman's) as an indicator of the relationship between social identification and diverse aspect of group functioning and excluded all those not meeting these criteria (e.g., Baysu & Phalet, 2017).

As a first step, to locate papers published in the focal area, we used the following keywords: social identity, group identity, collective identity, social identification and group identification. Secondly, we identified specific keywords related to our review (opinion-based groups, groups based on similar world-views) which appeared in the full text, found 164 articles on APA PsycArticles, APA PsycInfo, Academic Research Source eJournals and added six articles by hand-searching. We removed 34 articles based on abstract reading and reached 107 relevant articles. Then, we examined the full texts and excluded further 36 articles. The full list of excluded papers is available in the Supplementary materials. Finally, we decided to include 32 papers with 45 studies which met our including criteria in the meta-analysis. All those articles and additional five papers with no measure of social identification and correlation coefficient were incorporated in the quantitative and narrative review. Furthermore, we coded four dichotomous study quality and measurements characteristics such as SI measurement used (five types of scales used typically vs. uncommonly used in < 5 studies were collapsed into "Other" category, see Table 1), group experience type (comparing collective action, prejudice, online involvement with other category), participation type (intention vs. behavior) and dependent measure concept (reducing poverty vs. other). We also coded three continuous characteristics within analyzed datasets: data of publication, mean age of participants, percent of female participants. The stages of the selection process are detailed in Figure 1.

## Analysis

For the effect size, we coded a bivariate correlation (*r*) between measures of social Identification and measures of intergroup dynamics (all eligible effect sizes were coded). Analyses of weighted effect sizes, heterogeneity and moderators were conducted using R (version 4.3.3, 2021) with *meta* and *metafor* packages (Viechtbauer, 2010). First, we normalized the effect sizes by transforming correlation coefficients into Fisher's Z correlation coefficients (which should stabilize the variance). In our analysis, we assumed that the heterogeneity of the true effects is purely random, due to the differences in the methods and sample characteristics (which introduce random variability). Therefore, we employed the random-effects model, which posits that effect sizes can vary across studies. We coded every correlation coefficients (*ri)* between social identification and every aspect of intergroup dynamics and reported sample size (*ni*). For studies that reported multiple correlations (for example between two subscales of social identity and collective action participation), we considered each correlation independently (while including the nesting of those subsamples in the analysis). A default restricted maximum-likelihood estimation was used when estimating $I^2$. We share our code and data at https://osf.io/g6jf5/.

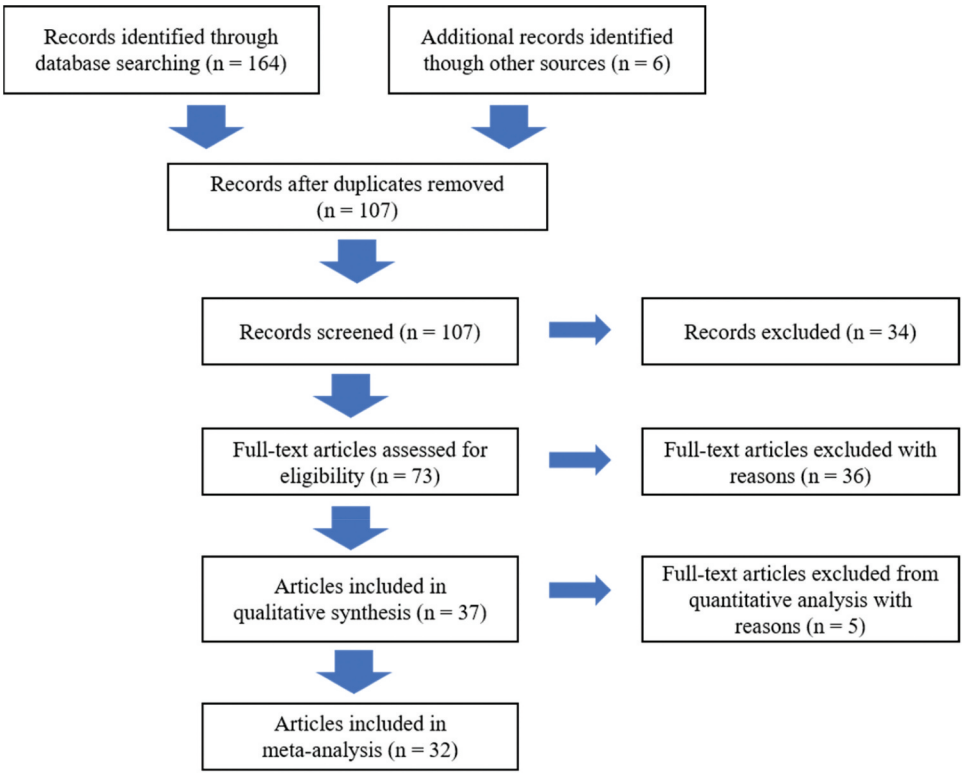


**Figure 1.** PRISMA flow diagram.

## Results of quantitative analysis

### *Overall effect size*

In the analysis we included 32 papers with 45 studies describing 124 separate correlations coefficients (spanning across 30 063 observations) described in detail in Table 3. The meta-analysis results illustrated in Figure 2 indicate a significant overall effect size (*COR* = .429; *ZCOR* = 0.459, *95% CI* [0.406, 0.512], $Z = 17.02$, $p < .001$), suggesting a medium positive correlation between social identity (SI) and aspects of intergroup dynamics (ID) across the analyzed studies, meaning that higher sense of belonging to the group is associated with more frequent experiences of intergroup dynamics. We also performed a *Cochran's Q* test to examine heterogeneity across studies. Results indicated that there is significant heterogeneity $Q(122) = 2268.62$, $p < .001$, demonstrating that the substantial variance depends on the variability in true effects size rather than a sampling error ($I^2 = 95.16\%$, $tau^2 = 0.083$). This suggests that factors other than ID and SI contribute to the observed differences across studies. Thus, we examined sample and concept characteristics as potential moderators using analysis of variance for categorical moderator variables and meta-regression analysis for continuous moderator variables (using linear regressions).

### *Moderation analysis*

Next, we performed a series of moderated meta-analyses to test if the variance in study populations (participant's age, percent of females) and various methodologies (social identity operationalization, type of participation, identity issue and date of publication) between studies could explain the observed heterogeneity. We used four coded moderators between studies: type of SI measurement scale used,

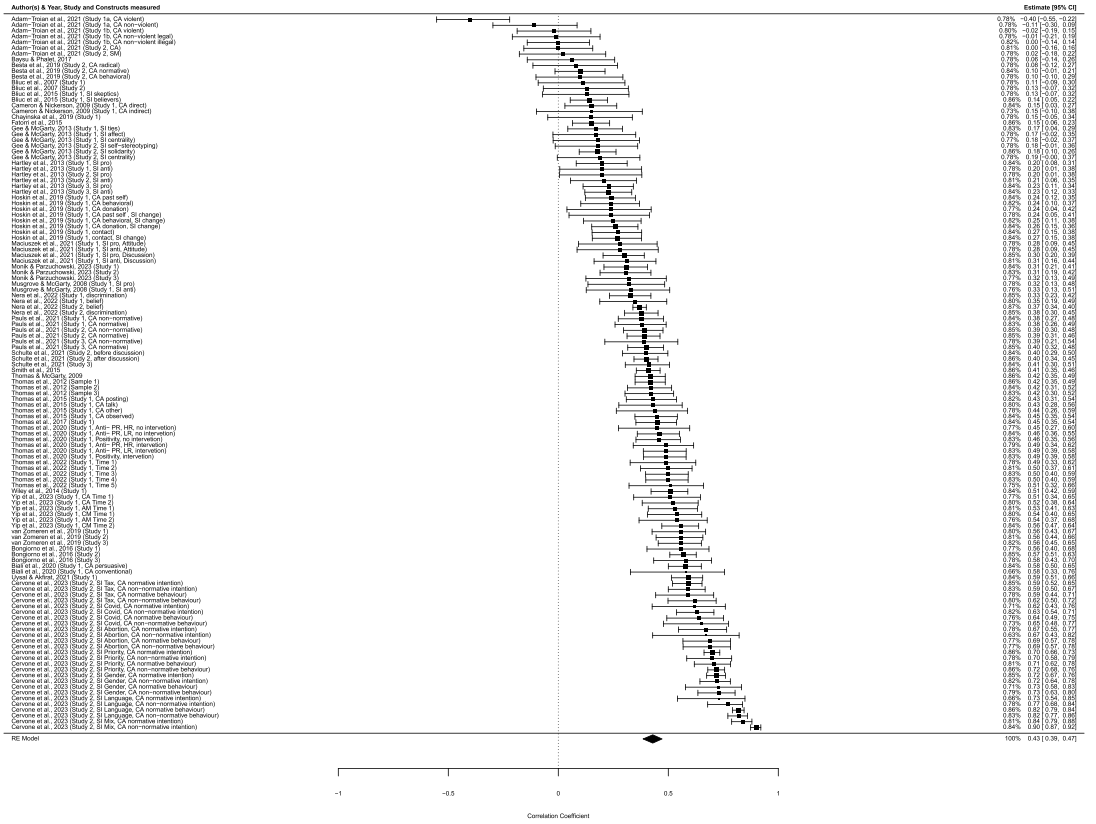


**Figure 2.** Forestplot of the weighted effect sizes and confidence intervals of various measures included in the meta-analysis.

group experience type, identity issue used, and participation type. As shown in Table 1, the strongest moderation effect was found to be the participation type (intention vs behavior) which differentiated the relationship between the sense of belongingness to the opinion-based group and intergroup dynamics, implying that the relationship was much stronger for intended actions ($r = .48$, 95% CI [.43, .53]) than for actually performed ones ($r = .28$, 95% CI [.21, .34]. We also found that the social identity operationalization significantly moderated the relationship between social identification and intergroup phenomena. The hierarchical measurement by Leach and colleagues (2008) demonstrated relatively lower relationship between scrutinized variables ($r = .42$, 95% CI [.36, .48]) than most of the nonhierarchical measurements l. The type of the group experience also significantly moderated the association of social identity with the intergroup dynamics, meaning that the averaged correlation was the strongest for collective action ($r = .42$, 95% CI [.52, .71]), while notably lower for online involvement ($r = .14$, 95% CI [−.04, .32]). While, the moderation by identity issue was not significant, namely reducing poverty, showed similar size of the effect ($r = .43$, 95% CI [.34, .53]) as for the other issues measured within the analyzed studies ($r = .39$, 95% CI [.35, .44]). Regarding continuous moderators, Table 2 shows that publication date and sample characteristics (participants' age and percentage of female participants) did not significantly correlate with effect size. This indicates that measurement characteristics did not substantially moderate the heterogeneity of the observed effects.

Additionally, we generated the funnel plot of the effect sizes (see Figure 3) which suggest a reasonably symmetrical distribution of studies around the mean effect size, hence there is no visible publication bias (with few outliers possibly because of the sample size or other variations in study

**Table 1.** Moderator analyses of categorical methodological characteristics.

| Moderator | *N* | *r* | 95% CI | *F test; $\eta^2p$* |
|---|---|---|---|---|
| **SI measurement** | | | | $F(5, 88) = 8.95$; $p < .001$; $\eta^2p = .41$ |
| Leach et al. (2008) | 36 | .42 | [.36, .48] | |
| Cameron (2004) | 23 | .47 | [.40, .54] | |
| Bliuc et al. (2007) | 8 | .40 | [.28, .52] | |
| Roccas et al. (2008) | 7 | .14 | [.01, .27] | |
| van Zomeren et al. (2011) | 6 | .64 | [.50, .78] | |
| Other | 15 | .61 | [.52, .71] | |
| **Group experience type** | | | | $F(3, 119) = 3.17$; $p < .05$; $\eta^2p = .07$ |
| Collective action | 100 | .42 | [.52, .71] | |
| Prejudice | 10 | .38 | [.24, .52] | |
| Other | 8 | .35 | [.20, .51] | |
| Online involvement | 6 | .14 | [−.04, .32] | |
| **Identity issue** | | | | $F(3, 121) = .46$; $p = .49$; $\eta^2p = .00$ |
| Other | 101 | .39 | [.35, .44] | |
| Reducing poverty | 23 | .43 | [.34, .53] | |
| **Participation type** | | | | $F(1, 109) = 23.50$; $p < .001$; $\eta^2p = .18$ |
| Intention | 68 | .48 | [.43, .53] | |
| Behaviour | 44 | .28 | [.21, .34] | |

design). Most of the coefficients fall within the expected confidence intervals, which points that the effect size estimates are generally robust and consistent with the expected range.

### *(Not) depending on social identity in opinion-based groups*

A handful of studies have concentrated mainly on group identification with like-minded people as an amplifier of intentions or behavior on behalf of the in-group. Hence, its catalytic function has been validated mostly within the SIMCA (Thomas et al., 2012) and EMSICA (Fattori et al., 2015) models of collective action. Indeed, self-recognition as a member of the community has been named the heart of collective efforts (see Agostini & van Zomeren, 2021). According to the Social Identity Model of Collective Action (SIMCA), individuals are inclined to undertake joint initiatives when they experience substantial affective reactions to injustice, hold the conviction that the efforts of their groups can bring about positive change, and belong to social groups that can mobilize action (van Zomeren et al., 2008). In a similar vein, the Encapsulated Model of Social Identity in Collective Action (EMSICA) states that the stronger the feeling of injustice and the belief in collective effectiveness, the greater the identification with the group, which then fuels the tendency to participate in collective actions (Thomas et al., 2012). Thus, the results of our analysis corroborate the prevailing research trend confirming the crucial role of group identity in the model of collective actions.

Consistent with the assumptions, perceived group efficacy and group-based anger are significant mediators of the relationship between social identity and joint efforts to implement various types of social change (Hartley et al., 2013). Likewise, membership in like-minded communities mediates the links between perceived collective efficacy, group-based emotions and collective action (Schulte et al., 2021). Identification with people who share similar worldviews has been established as an impactful factor for the relations between collective action and perceived moral violation (Pauls et al., 2022), intergroup contact (Hoskin et al., 2019), social media usage (Adam-Troian et al., 2021), dual identity (Wiley et al., 2014), national identification (Chayinska et al., 2019) or autonomous motivation (Yip et al., 2023). Yet, it is important to stress that the majority of the research has a cross-sectional

**Table 2.** Meta-regressions of continuous moderators.

| Moderator | *N* | *Coef.* | *SE* | *Z* | *p* |
|---|---|---|---|---|---|
| Publication date | 50 | −.004 | .007 | −.61 | .53 |
| Mean age | 35 | −.003 | .002 | 1.91 | .056 |
| % Female | 42 | .00 | .00 | −.37 | .711 |

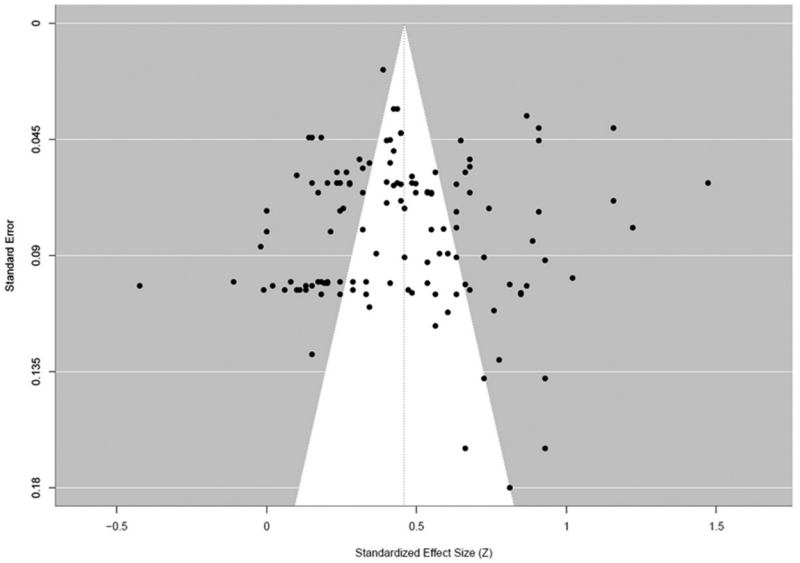


**Figure 3.** Funnel plot for the standard errors in the 124 effect coefficients coded in our meta-analysis.

character, meaning that conclusions are limited to probable associations rather than cause-and-effect relationships. Overall, the significant direct and indirect impact on group performance is fairly well demonstrated.

Nevertheless, little research has been conducted on the question of what fuels the emergence of the construct. Schulte and colleagues (2021) examined the process of shaping social identity with a group supporting the formation of local cycling infrastructure. According to the interactive model of identity formation (Postmes et al., 2005), it has been suggested that group discussions likely activated the inductive pathway of identity development. Furthermore, it has been demonstrated that in line with the normative alignment model (Thomas & McGarty, 2009), extensive communication, negotiations and consensus-building processes may have facilitated the establishment of a group norm that dictates the emotions a typical group member should feel, the beliefs they should support, and the behaviors they should engage in. In keeping with this theoretical rationale, Baysu and Phalet (2017) showed that distinct profiles of group protesters (liberals, secularists, moderates and conservatives) differ in terms of democratic attitudes or political concerns, but are consistent around clear norms of action. Also, Smith and colleagues (Smith et al., 2015) indicated linguistic markers of shared social identity formation. People who agreed with the injunctive norm and received social validation appeared to have identified with the Occupy movement. Another way of addressing the complex question of how identity in opinion-based groups emerges is to parallelly capture the interplay between opposing worldviews (Chayinska et al., 2019). In general, thus far, scant evidence indicates the key role of inductive rather than top-down processes in identity shaping.

Social identity can shape and be shaped by individuals' online interactions, content sharing, and community engagement. For example, individuals may use social media to express and reinforce their social identities by joining specific groups, sharing content aligned with their group memberships, and interacting with like-minded individuals (Maciuszek et al., 2021; Nadler & Hannon, 2013). Additionally, social identity can influence individuals' motivations for using social media, such as seeking social support, expressing opinions related to their group memberships, and participating in collective action or social movements online. Importantly, research findings have confronted the common view that social-psychological predictors of intergroup behaviors are now secondary, given the development and use of new communication technologies. Mere activity on social media platforms

**Table 3.** Review of the 45 selected studies ($N = 31020$) included in meta-analysis.

| Study | Sample | Variable | Issue | Social identity operationalization | *M (SD)* | Correlation coefficient |
|---|---|---|---|---|---|---|
| Adam-Troian et al. (2021) (Study 1a) | French population ($N = 612$) | Collective action: violent/nonviolent (intention) | Yellow Vest | Postmes et al. (2013), 1–7 scale | 3.82 (2.17) | $r = .72$*** (violent CA)<br>$r = .82$*** (nonviolent CA) |
| Adam-Troian et al. (2021) (Study 1b) | French students ($N = 489$) | Collective action: violent/nonviolent legal/nonviolent illegal (intention) | Yellow Vest | Postmes et al. (2013), pp. 1–7 scale | 2.83 (1.67) | $r = .38$*** (violent CA)<br>$r = .72$*** (nonviolent legal CA)<br>$r = .57$*** (nonviolent illegal CA) |
| Adam-Troian et al. (2021) (Study 2) | French population ($N = 557$) | Collective action: past participations/social media use (behavior) | Yellow Vest | National surveys | ni. | $r = .42$*** (past CA)<br>$r = .42$*** (SM use) |
| Besta et al. (2019) (Study 2) | Polish population ($N = 262$) | Collective action: radicalt/normative/ behavioral (intention) | Aanti abortion | Leach et al. (2008) | 4.02 (1.12) | $r = .42$** (radical)<br>$r = .56$** (normative)<br>$r = .27$** (behavioral) |
| Bilali et al. (2020) | Left wing online users ($N = 913$) | Collective action: persuasive/ conventional (intention) | Anti-Trump | Musgrove and McGarty (2008) | 5.14 (0.99) | $r = .40$*** (conventional CA)<br>$r = .41$*** (persuasive CA) |
| Bliuc et al. (2007) (Study 1) | Romanian students ($N = 101$) | Political behavioral (intention) | Political party | Ellemers et al. (1999) | 4.09 (1.00) | $r = .60$*** |
| Bliuc et al. (2007) (Study 2) | Australian students ($N = 101$) | Political behavioral (intention) | Political party | Ellemers et al. (1999) | 4.09 (0.97) | $r = .68$*** |
| Bliuc et al. (2015) | US population ($N = 448$) | Collective action (intention) | Climate change | Leach et al. (2008) | 3.30 (1.16): Skeptics;<br>4.12 (1.24): Believers | $r = .49$** (Skeptics)<br>$r = .59$** (Believers) |
| Bongiorno et al. (2016) (Study 1) | Australian students ($N = 40$) | Collective action (intention) | Global warming | Cameron (2004) | 6.30 (1.36) | $r = .73$** |
| Bongiorno et al. (2016) (Study 2) | Australian students ($N = 40$) | Collective action (intention) | Global warming | Cameron (2004) | 6.74 (1.27) | $r = .58$** |
| Bongiorno et al. 2016) (Study 3) | Australian students ($N = 34$) | Collective action (intention) | Global warming | Leach et al. (2008) | 6.23 (1.19) | $r = .67$** |
| | | | Anti-globalization | Cameron (2004) | 4.98 (0.99) | |

(*Continued*)

**Table 3.** (Continued).

| Study | Sample | Variable | Issue | Social identity operationalization | *M (SD)* | Correlation coefficient |
|---|---|---|---|---|---|---|
| Cameron and Nickerson (2009) | Demonstrators ($N = 129$) | Collective action: direct/indirect protest (intention) | | | | $r = .54$*** (direct CA)<br>$r = .35$*** (indirect CA) |
| Cervone et al. (2023) (Study 2) | Italian population<br>($N = 103$) (1)<br>($N = 100$) (2)<br>($N = 103$) (3)<br>($N = 97$) (4)<br>($N = 97$) (5)<br>($N = 102$) (6)<br>($N = 95$) (7) | Collective action: normative (NI)/non-normative (NNI) (intention)<br>Collective action: normative (NB)/ non-normative (NNB) (behavior) | Wealth tax (1)<br>Covid restrictions (2)<br>Abortion (3)<br>Priority access (4)<br>Gender quotas (5)<br>Inclusive language (6)<br>Abortion, compulsory vaccinations, international arms trade (7) | "It's not part of my identity/It's not part of who I am;" "It's central to my identity/It's a fundamental part of who I am" | ni. | $r = .28$** (NI) (1)<br>$r = .18$ ns. (NNI) (1)<br>$r = .32$ ns. (NB) (1)<br>$r = .17$ ns. (NNB) (1)<br>$r = .13$ ns. (NI) (2)<br>$r = .15$ ns. (NNI) (2)<br>$r = .02$ ns. (NB) (2)<br>$r = -.04$ ns. (NNB) (2)<br>$r = .24$* (NI) (3)<br>$r = -.11$ ns. (NNI) (3)<br>$r = .02$* (NB) (3)<br>$r = .08$ ns. (NNB) (3)<br>$r = .28$** (NI) (4)<br>$r = .13$ ns. (NNI) (4)<br>$r = .11$ ns. (NB) (4)<br>$r = .06$ ns. (NNB) (4)<br>$r = .59$*** (NI) (5)<br>$r = .10$ ns. (NNI) (5)<br>$r = .44$*** (NB) (5)<br>$r = -.01$ ns. (NNB) (5)<br>$r = .49$*** (NI) (6)<br>$r = .19$ ns. (NNI) (6) |

(*Continued*)

**Table 3.** (Continued).

| Study | Sample | Variable | Issue | Social identity operationalization | *M (SD)* | Correlation coefficient |
|---|---|---|---|---|---|---|
| | | | | | | $r = .39^{***}$ (NB) (6)<br>$r = .20^{*}$ (NNB) (6)<br>$r = .69^{***}$ (NI) (7)<br>$r = .45^{***}$ (NNI) (7) |
| Chayinska et al. (2019) | Ukrainian population ($N = 3096$) | Collective action (intention) | Euromaidan | Aron et al. (1992) | 3.98 (1.13) | $r = .37^{***}$ |
| Fattori et al. (2015) | Italian population ($N = 783$) | Collective action (intention) | Reducing poverty | Thomas et al. (2012) | ni. | $r = .70^{***}$ |
| Gee and McGarty (2013) (Study 1) | Australian students ($N = 198$) | Sociopolitical action (intention) | Mental health advocacy | Bliuc et al. (2007), Cameron (2004) dimensions:in-group ties (IT)/in-group affect (IA)/centrality (C) | 6.97 (2.08): IT;<br>8.95 (1.47): IA;<br>4.49 (2.30): C | $r = .43^{***}$ (IT)<br>$r = .25^{***}$ (IA)<br>$r = .63^{***}$ (C) |
| Gee and McGarty (2013) (Study 2) | Australian population ($N = 125$) | Beliefs (B)<br>Sociopolitical action (SA) (intention) | Mental health advocacy | Leach et al. (2008) dimensions: self-stereotyping//in-group homogeneity (SH); solidarityb/satisfaction (SS); centrality (C) | 5.78 (2.00): SH;<br>7.16 (1.87): SS;<br>5.04 (2.51): C | $r = .43^{***}$ (SH)<br>$r = .61^{***}$ (SS)<br>$r = .56^{***}$ (C) |
| Hartley et al. (2013) (Study 1) | Australian population ($N = 206$) | Collective action (intention) | Reconciliation with Indigenous Australians | Bliuc et al. (2007) | 5.92 (0.94) | $r = .71^{**}$ (Supporters)<br>$r = .65^{**}$ (Opponents) |
| Hartley et al. (2013) (Study 2) | Australian population ($N = 215$) | Collective action (intention) | Reconciliation with Indigenous Australians | Bliuc et al. (2007) | 4.43 (1.06) | $r = .52^{***}$ (Supporters)<br>$r = .33^{**}$ (Opponents) |
| Hartley et al. (2013) (Study 3) | Australian population ($N = 298$ | Collective action (intention) | Reconciliation with Indigenous Australians | Leach et al. (2008) | 4.51 (0.86) | $r = .52^{***}$ (Supporters)<br>$r = -.02$ ns. (Opponents) |
| Hoskin et al. (2019) | Australian population ($N = 265$) | Collective action: past self reported (PCA) behavioral (B) donation (D) Intergroup contact (IC) | Reducing poverty | Leach et al. (2008) | 5.61 (0.89): T1;<br>5.51 (0.99): T2 | T1:<br>$r = .41^{**}$(PCA)<br>$r = .24^{**}$ (B)<br>$r = .09$ ns. (D)<br>$r = .20^{**}$ (IC)<br>T2:<br>$r = .45^{**}$(PCA)<br>$r = .27^{**}$ (B)<br>$r = .23^{**}$ (D)<br>$r = .15^{**}$ (IC) |
| Maciuszek et al. (2021) | | | Vaccination | Roccas et al. (2008) | | |

(*Continued*)

**Table 3.** (Continued).

| Study | Sample | Variable | Issue | Social identity operationalization | *M (SD)* | Correlation coefficient |
|---|---|---|---|---|---|---|
| | Polish population (*N* = 350) | Attitude toward science (ATS)/ Involvement in online discussion (ON) | | | 5.33 (1.06): Supporters; 4.67 (1.22): Opponents | *r* = .24**(ATS/ Supporters) *r* = .21** (ATS/ Opponents) *r* = .45**(ON/ Supporters) *r* = .35** (ON/ Opponents) |
| Monik and Parzuchowski (2023) (Study 1) | Online users (*N* = 268) | Collective action (intention) | Pro-environmentalism | Bliuc et al. (2007) | 5.29 (1.21) | *r* = .38*** |
| Monik and Parzuchowski (2023) (Study 2) | Online users (*N* = 263) | Collective action (intention) | Diversity | Leach et al. (2008) | 5.21 (1.00) | *r* = .46*** |
| Monik and Parzuchowski (2023) (Study 3) | Online users (*N* = 292) | Collective action (past behavior) | Pro-environmentalism | Bliuc et al. (2007) | 5.49 (1.07) | *r* = .10* |
| Musgrove and McGarty (2008) | Australian population (*N* = 141) | Collective action (intention) | War on terror | Bliuc et al. (2007) | 4.11 (1.30): Supporters; 3.10 (1.32): Opponents | *r* = .15 ns. (Supporters) *r* = .51*** (Opponents) |
| Nadler and Hannon (2013) (Study 4) | Roller derby enthusiasts (*N* = 515) | Online group activities | Roller derby supporting | Cameron (2004), Roccas et al. (2008), Nadler and Hannon, (2013) | ni. | *r* = .18** *r* = .15** *r* = .14** |
| Nera et al. (2022) (Study 1) | Belgian population (*N* = 160) | Perceived discrimination of conspiracy theories (DCT) Belief in meta conspiracy theories (BCT) | Conspiracy theories | Leach et al. (2008), Postmes et al. (2013) | 6.10 (2.06) | *r* = .31** (DCT) *r* = .50** (BCT) |
| Nera et al. (2022) (Study 2) | Belgian & French population (*N* = 364) | Perceived discrimination of conspiracy theories (DCT) Belief in meta conspiracy theories (BCT) | Conspiracy theories | Leach et al. (2008); Postmes et al. (2013) | 5.54 (1.90) | *r* = .59** (DCT) *r* = .30** (BCT) |
| Pauls et al. (2022) (Study 1) | American population, non-Trump voters (*N* = 163) | Collective action: non normative and normative (intention) | Opposing anti-immigration policy | van Zomeren et al. (2011) | 4.75 (1.66) | *r* = .56** (nonnormative CA) *r* = .84** (normative CA) |
| Pauls et al. (2022) (Study 2) | American population, non-Trump voters (*N* = 191) | Collective action: non normative and normative (intention) | Opposing anti-immigration policy | van Zomeren et al. (2011) | 4.68 (1.50) | *r* = .56** (nonnormative CA) |

(*Continued*)

**Table 3.** (Continued).

| Study | Sample | Variable | Issue | Social identity operationalization | *M (SD)* | Correlation coefficient |
|---|---|---|---|---|---|---|
| | | | | | | $r = .72^{**}$ (normative CA) |
| Pauls et al. (2022) (Study 3) | American population, pro-environmentalists ($N = 215$) | Collective action: non normative and normative (intention) | Climate change | van Zomeren et al. (2011) | 4.55 (1.84) | $r = .82^{**}$ (nonnormative CA) $r = .42^{**}$ (normative CA) |
| Schulte et al. (2021) (Study 2) | Activists ($N = 56$) | Collective action (intention): T1 & T2 | Pro-environmentalism | e.g. "I identify with people who organize the local citizen-initiated popular vote for cycling" | 3.92 (0.86) T1; 3.99 (0.95) T2 | $r = .62^{**}$ (T1 CA) $r = .73^{**}$ (T2 CA) |
| Schulte et al. (2021) (Study 3) | General population ($N = 106$) | Collective action (intention) | Pro-environmentalism | e.g., "I identify with people who support a cycling referendum in my city" | 3.12 (0.82) | $r = .77^{**}$ |
| Thomas et al. (2012) | Australian: students ($N = 83$); population ($N = 100$); university community ($N = 122$) | Collective action (intention) | Reducing poverty | Cameron (2004), Bliuc et al. (2007) | 5.84 (1.50) students 5.42 (1.43) population 5.84 (1.39) community | $r = .54^{***}$ (students) $r = .70^{***}$ (population) $r = .73^{***}$ (community) |
| Thomas et al. (2015) | Online users ($N = 299$) | Collective action: posting/talk/other action/observed behavior | Anti-Kony | Leach et al. (2008) | 3.95 (1.14) W1 3.52 (1.11) W2 3.62 (1.17) W3 | $r = .51^{***}$ (posting) $r = .58^{***}$ (talk) $r = .23^{**}$ (other action) $r = .26^{***}$ (observed behavior) |
| Thomas et al. (2017) | Australian population ($N = 233$) | Collective action (intention) | Helping victims | Leach et al. (2008) | 5.03 (0.93) | $r = .50^{***}$ |
| Thomas et al. (2020) | Australian students ($N = 94$) | Bystander anti-prejudice action (BA) Positivity toward outgroup (PO) | Muslim and non-Muslim relations | Leach et al. (2008) | 4.44 (1.15) T1; 5.13 (1.06) T2 | $r = .32^{**}$ (BA/high risk/T1) $r = .47^{***}$ (BA/high risk/T2) $r = .24^{*}$(BA/low risk/T1) $r = .51^{***}$ (BA/low risk/T2) $r = .69^{***}$ (PO/T1) $r = .56^{***}$ (PO/T2) |

(*Continued*)

**Table 3.** (Continued).

| Study | Sample | Variable | Issue | Social identity operationalization | *M (SD)* | Correlation coefficient |
|---|---|---|---|---|---|---|
| Thomas et al. (2022) | Australian supporters of NGOs ($N = 483$) | Collective action (behavior) | Reducing poverty | Cameron (2004) | 5.74 (0.87) | $r = .40^{***}$ (T1)<br>$r = .39^{***}$ (T2)<br>$r = .31^{***}$ (T3)<br>$r = .40^{***}$ (T4)<br>$r = .38^{***}$ (T5) |
| Uysal and Akfirat, (20222) | ($N = 345$) | Collective action (behavior) | Gezi Park | Cameron (2004) | 3.97 (0.87) | $r = .33^{***}$ |
| van Zomeren et al. (2019) (Study 1) | Online users ($N = 288$) | Collective action (intention) | Climate change | Bliuc et al. (2015) | 4.32 (1.37) | $r = .45^{*}$ |
| van Zomeren et al. (2019) (Study 2) | Online users ($N = 238$) | Collective action (intention) | Climate change | Bliuc et al. (2015) | 4.78 (1.51) | $r = .49^{*}$ |
| van Zomeren et al. (2019) (Study 3) | Online users ($N = 494$) | Collective action (intention) | Climate change | Bliuc et al. (2015) | 4.72 (1.44) | $r = .39^{*}$ |
| Wiley et al. (2014) | Latino immigrants ($N = 84$) | Collective action (intention) | Changing immigration policy | Leach et al. (2008) | 7.21 (1.75) | $r = .64^{***}$ |
| Yip et al. (2023) | Australian supporters of NGOs ($N = 263$) | Collective action (behavior) | Reducing poverty | Cameron (2004) | 5.54 (1.00): T1;<br>5.53 (0.98): T2 | $r = .50^{***}$ (T1)<br>$r = .46^{***}$ (T2) |

CA = collective action, SM = social media, ni = no information, W = study wave, $^{*}p < .05$; $^{**}p < .01$; $^{***}p < .001$; ns = non-significant.

may not suffice to engage individuals if it does not concurrently support the emergence of opinion-based groups (Adam-Troian et al., 2021).

### Dominance of the global social issues

Broadly, the content of opinion-based groups is pressing community concerns revolving around ethics, morality, and cultural values having a significant influence on the lives of all society members. The dominant context at hand is most often social rather than political issues.[1] Most studies used transnational activities, which are extended beyond the context of internal politics and power structures within individual state entities. The spectrum of social issues is extensive, ranging from battling poverty (Fattori et al., 2015; Hoskin et al., 2019; Yip et al., 2023), to climate protection (Bongiorno et al., 2016; Monik & Parzuchowski, 2023; Schulte et al., 2021; van Zomeren et al., 2018) to fighting the negative effects of globalization (Cameron & Nickerson, 2009; Cervone et al., 2023; Smith et al., 2015). Simultaneously, there is a relative decline in the portion of studies devoted to strictly political issues, regarding areas of internal policy, such as participation in parliamentary elections (Bliuc et al., 2007), regulations regarding migrants (Pauls et al., 2022) or reconciliation with indigenous peoples (Hartley et al., 2013). Additionally, an analysis of the list of Global Issues prepared by the United Nations has been conducted to evaluate the scope of public matters to which the applicability of the concept has been demonstrated.[2] Currently, no less than ten issues have been examined from an opinion-based social identity perspective, among the outlined twenty-four diverse areas. In particular, studies have delved into Africa (Thomas et al., 2015), Climate change (Bliuc et al., 2015; Monik & Parzuchowski, 2023; Schulte et al., 2020, 2021), Decolonization (Hartley et al., 2013), Democracy (Adam-Troian et al., 2021; Besta et al., 2019; Chayinska et al., 2019; Smith et al., 2015), Health (Maciuszek et al., 2021), Peace and Security (Baysu & Phalet, 2017; Musgrove & McGarty, 2008), Water (Thomas & McGarty, 2009), Ending Poverty (Fattori et al., 2015; Hoskin et al., 2019; Thomas et al., 2022; Yip et al., 2023), Migration and Refugees (Pauls et al., 2022; Thomas et al., 2020; Wiley et al., 2014), and Human Rights (Thomas et al., 2015). It is worth noting that, with a few exceptions (Nadler & Hannon, 2013; Nera et al., 2022), all of these studies aligned directly with the United Nations' global issue framework, highlighting the robust relevance of the concept.

Interestingly, using solely ideology as a conjectural dividing category may not sufficiently differentiate factors influencing collective behavior. Although the formation of opinion-based groups may be consistent with ideological struggle (see Chayinska et al., 2019), once identification is considered, no ideological beliefs could remain predictive of participation in collective action. Studies suggested that despite ideology and political orientation, identifying with opinion-based groups emerges as a significant factor driving both the intention and actual engagement in collective action (Adam-Troian et al., 2021; Smith et al., 2015). Social identification based on opinion cannot simply be reproduced by a set of traditionally considered postulates of particular political orientation (Hartley et al., 2013). Notably, opinion-based groups seem to offer a broader, yet more precise framework.

### The mobilizing power of like-minded communities

Another explored aspect is the range of constructs that are embedded in the framework of social identity in opinion-based groups. Almost all the studies focused on grassroots activism. In particular, membership in opinion-based groups encouraged signing a petition calling on the White House to remain in the Paris accord (Pauls et al., 2022), commitment to the "Water for Life" campaign (Thomas et al., 2012), participating in the Euromaidan social movement (Chayinska et al., 2019), upholding the War on Terror (Musgrove & McGarty, 2008), supporting policies to address past wrongs committed against Indigenous Australians (Hartley et al., 2013), supporting reduction of global poverty (Yip et al., 2023), protesting against abortion law restriction (Besta et al., 2019), endorsing the Yellow Vests movement (Adam-Troian et al., 2021), taking part in the Gezi Park protest (Baysu & Phalet, 2017), advocating to arrest the leader of a militant group (Thomas et al., 2015), promoting the Occupy

movement (Smith et al., 2015), endorsing mental health advocacy (Gee & McGarty, 2013), being involved in environmental action (Bliuc et al., 2015) and supporting pro-immigrant policy in the US (Wiley et al., 2014). In a recent meta-analysis, Akfırat and colleagues (2021) demonstrated that the relationship between collective action and identification with emergent groups was stronger than identification with preexisting groups, constituted by social categories. Despite various contexts, the ideological cohesiveness enabled and facilitated consensus around collective action intentions or behavior.

In the context of collective actions, it is worth emphasizing that the sense of belonging with a community of like-minded individuals has so far demonstrated stronger associations with normative and legal forms of activism rather than non-normative ones (Adam-Troian et al., 2021; Besta et al., 2019; Pauls et al., 2022). This may imply that social identity within opinion-based groups can be considered less antagonistic, meaning it does not provoke aggression and animosity to the extent seen in relations between disadvantaged and advantaged groups. It is crucial to note that real-world incidents, like the January 6 United States Capitol attack, demonstrate how opinion-based communities can also instigate hostile behaviors. Therefore, further research should be conducted to assert whether the sense of belonging to a like-minded group indeed promotes significantly more frequent use of peaceful forms of collective action.

Two of the selected studies addressed a distinctive social field, namely conspiracy theories. Belief in conspiracy theories is defined as the conviction that threatening random events are a consequence of secret actions performed by a group of malevolent people (Imhoff & Bruder, 2014). Sociopsychological factors conditioning this phenomenon include an orientation toward social dominance or extreme right-wing authoritarianism (Swami, 2012) and collective narcissism (Marchlewska et al., 2022). Drawing on group optics, Nera and colleagues (2022) discovered that the relationship between discrimination and identification is mediated by the meta-belief that discrimination itself is a conspiracy. The results suggest that criticizing conspiracy theories and their believers may no longer enhance identification if that criticism is not perceived as an element of a conspiracy against conspiracy theory believers. Moreover, Maciuszek and colleagues (2021) found that feeling as though one belongs to the cluster positively correlated with attitudes toward science in both pro-vaccine and anti-vaccine groups. Yet, pro-vaccine individuals' group identity was higher than anti-vaccine individuals. The suggested explanation is that in the course of internet discussions, anti-vaccinationists observe the heterogeneity of their group, which does not strengthen the sense of social identity. Taken together, opinion-based social identity provides insights into how the cognitive components, specifically in-group perception, may influence group members' decisions.

In light of the importance of prejudice in group behavior, the attention to the reduction of collective animosity is also evident in the analyzed area. Prejudice is comprehended as a negative attitude and feeling toward an individual based solely on one's membership in a particular social group (Allport, 1954). Consistent with this line of reasoning, Thomas and colleagues (2020) demonstrated that an increase in positivity toward Muslim people reinforced not only the intention to take bystander action to confront prejudice but also enhanced group identification. Considering that both Muslims and non-Muslims can recognize themselves as representatives of a group defined by a similar worldview, such an identity provides an alternative path to fostering a common in-group membership. Gee and McGarty (2013) showed that social identification with mental health advocacy is highly relevant to predicting stigma-reducing outcomes. More specifically, individuals who are dedicated to modifying their behavior seem to adopt the viewpoint of opinion-driven groups. In their day-to-day interactions with individuals experiencing mental disorders, they actively challenge and reduce stigmatizing attitudes at a personal and interpersonal level. Taking into account those implications, it can be stated that leveraging knowledge about the mechanisms governing social identity in opinion-based groups can have impactful consequences for building a more harmonious, diverse society.

It may also be noteworthy that the phenomenon has been predominantly analyzed in a way that is detached from the perspective of personal factors. Only studies by Hoskin and colleagues (2019) and Cameron and Nickerson (2009) investigated how scrutinizing a social dominance orientation can

complete the social identity framework. Moreover, Yip and colleagues (Yip et al., 2023) found that increases in autonomous motivation (freely chosen, subjective valuing of the group and its goals) positively predicted an increase in opinion-based group identification. Nevertheless, the gap revealing individual variables contributing to the creation, maintenance or reinforcement of the community based on similar worldviews is yet to be filled.

### *Challenges with operationalization: activation, but not for activists*

The analysis exposed some methodological inconsistencies. There is a lack of coherence concerning the activism continuum. Specifically, as intended by the original conceptualization, group identity based on a shared worldview is a kind of bridge between being unresponsive to a given social issue and being an engaged activist (McGarty et al., 2009). The notion of perceiving oneself as a supporter of a specific community, potentially while synchronously identifying as an opponent of antagonistic groups, could signify an intermediate phase in the process of becoming socially engaged. That intermediate stage may subsequently evolve into a more intense activist group identification (Musgrove & McGarty, 2008). In the case of declared activists, a politicized group identity is recognized. Politicization is typically operationalized as a strength of identification with a social movement or organization (Stürmer & Simon, 2004). Research suggests that politicized identities serve as accurate predictors of collective action due to a deeper internal obligation to take action (van Zomeren et al., 2008). Thus, being a member of a formalized structure or social movement means having a more activated identity than actual opinion-based groups. Importantly, groups of like-minded people are collectives of potential activists, but not every one of them necessarily has the resources and readiness to reach a higher level of identity. While groups of like-minded members do not automatically signify politicized identities, they can become politicized through the experience of adversity, and recognition of unequal status relations (see Simon & Klandermans, 2001). The issue may not necessarily be that a majority of those involved in the movement lack strong identification as activists, but rather that most participants vehemently reject being labeled as such (McGarty et al., 2009). From a second perspective, it can be presumed that the majority of members characterized by a politicized social identity have passed through the opinion-based group stage. Nevertheless, in the studies analyzed, opinion-based social identity is also used to refer to members of social movements.

Cameron and Nickerson (2009) showed that identification with a social movement mediates the relationship between a social dominance orientation and inclinations toward protest behavior. In their narratives, they refer to the anti-globalization movement as an opinion-based group, in which members share dissatisfaction with current social and economic arrangements. This is measured using a 12-item Cameron scale (e.g. "I feel strong ties to other members of the anti-globalization movement,"), which indicates some kind of formal structure or official membership declaration. Although the conclusions pertained to a more politicized collective identity, the authors emphasized an opinion-based group identity. Similarly, Chayinska and colleagues (2019) showed that the Euromaidan movement can be defined as an emergent opinion-based group acting collectively against the government's decision to suspend the EU – Ukraine agreement. They examined participants of initially peaceful demonstrations, which spiraled into violent interactions with numerous deaths. As the social mobilization of Ukrainian citizens required solid engagement, it may be more accurately framed as a development of a politicized group identity. In the same vein, while analyzing the "#OccupyWallStreet" movement on Facebook, Smith and colleagues (Smith et al., 2015) implemented an analytical model working within the framework articulated by the literature on opinion-based groups. Yet, the social movement structure seems to be mistaken for identification with a community built around a similar worldview, which did not necessarily attract only declared activists.

## General discussion

In this article, we conducted a meta-analysis and a qualitative review of the current state of knowledge regarding the role of social identity in opinion-based groups in intergroup relations. The goal of the meta-analysis was to evaluate the predictive value of the construct in the realm of the key aspects of the group dynamics. The aim of narrative review was to synthesize how the process of identity shaping unfolds, what determines the intensity of identification with the like-minded group and what possible consequences it can lead to. In particular, we investigated (1) the role of social identity based on opinion groups in the research models; (2) the dominant context of the research; (3) the most relevant constructs it is framed with; (4) the level of consistency in conceptualization and operationalization between studies.

Overall, the quantitative analyses revealed a medium positive relationship between social identity and intergroup phenomena ($r = .46$; 95% CI: .41, .51). Additionally, the results suggested that the participation type (intention vs behavior), the measurement of social identity (hierarchical vs. non-hierarchical) and type of the group experience (collective action, online involvement, prejudice reduction and other) significantly moderates the correlation. Findings from qualitative review showed that opinion-based groups were mostly investigated within the framework of collaboration. Research focus clearly shifted from political to social issues, emphasizing grassroots activism. While social belonging was extensively examined as a predictor of in-group-related intentions, its origin remained unexplored. We also highlighted that the concept's operationalization lacks clarity.

In general, the construct has come to prominence in explaining intergroup relations. Of the two main paths of forming a connection between groups, social identity in opinion-based groups is explored more through cooperation (collective action) than through positive intergroup contact (reduction of prejudice). Rooted in a broad spectrum of social contexts, it decompresses collaborative efforts in situations where there is no shared threat, incentive, or preexisting social identity (Thomas et al., 2015). Yet, research investigating the positive effects of intergroup contact shows a promising venue for further empirical developments, especially in the solidarity-based approach. Therefore, instead of evoking a superordinate or national identity, which might be perceived as threatening and exclusive, highlighting a shared worldview could foster more inclusive relationships (Smith et al., 2015). It is worth emphasizing that for groups established on non-nominal dimensions, the interaction effects may be more advanced than in the case of non-negotiable, assigned categories. Indeed, it is arguably pertinent, considering online settings playing an increasingly important role in the evolution of intergroup relations. Virtual contact enhances the dynamics of group behavior, mobilizes people into debates and involves them in new forms of collective decision-making (Sæbø et al., 2020).

Drawing on the fluid nature of opinion-based groups, it is important to stress that the sense of social identity is not entirely constant. People can change opinions and group affiliation repeatedly, in different time perspectives, and as a consequence, be representatives of several communities simultaneously. According to the Self-Categorization Theory, category memberships are a dynamic and flexible construct, capable of being modified based on the relevant context (Turner et al., 1994). Multiple group membership has been shown to be essential for group behavior in offline and online settings (Besta et al., 2019; Wiley et al., 2014). There are also some untested hypotheses about cross-domain activism with congruent or incongruent identities, stating that advocacy for one group will extend to other groups linked by shared overarching identities, ideologies, or values (see Louis et al., 2020). On the contrary, drawing from the concept of functional antagonism (Turner & Oakes, 1986), only a singular social identity can be prominent at any specific moment, indicating that individuals regularly engage in social identity shifts in their daily lives. Future studies could examine whether switching from a novel opinion-based group to an established identity may be as effective as switching between two well-established or arising identities (Zinn et al., 2022). While existing investigations represent a static approach, they do not delve into the cognitive process of changing self-categorization as a member of several communities at the same time. As aforementioned, it may be particularly relevant within the context of group dynamics in cyberspace.

Due to the emergent nature of opinion-based groups, the issue of identity essence becomes particularly significant. Identity content provides insight into how an individual perceives the community and what they are willing to express in public (Turner-Zwinkels & van Zomeren, 2021). The uniqueness of beliefs that define a group's identity can help us understand a wide range of behaviors that demonstrate commitment within groups in intergroup settings (Kurzban et al., 2001). Whereas the quantitative approach probes the strength of identification, the qualitative dimension addresses what identity means to group members. For instance, the sense of belonging to a community supporting actions against climate change may be translated into different postulates, expectations, and hopes on how to address this issue. Even among individuals who identify as feminists, there is a substantial disagreement regarding principles, objectives, and courses of action (Becker & Wagner, 2009). Hence, it resonates with the concept of collective narratives shaping the social identity content in terms of collective beliefs, values, and norms (Livingstone & Haslam, 2008). It seems justified to recommend creating narratives that unify rather than divide people with conflict-driven solutions (Bliuc & Chidley, 2022). Consequently, future studies could explore more deeply what particular opinions are concealed under the umbrella of collective association and how their diversity influences in-group dynamics.

Social identification built around a similar worldview implies strong adherence to group norms and belief in convictions articulated by its members. The concept was developed to understand how abstract notions become attributes of a group, with people internalizing them as core features they are willing to act upon (McGarty et al., 2014). As the content of group identities evolves, the specific norms for these identities also undergo changes (see Louis et al., 2020). If the opinions of group members are initially similar, the influence of discussion and the exchange of ideas within the group may lead to a polarization of those opinions, rendering them more extreme. Numerous studies implicated that social media may contribute to political polarization by fostering online echo chambers (Yarchi et al., 2020). What is more, digital communication tools have offered ample new possibilities to construct identities from scratch (Smith et al., 2015; Thomas et al., 2015). Following the line of reasoning of Maciuszek and colleagues (2021), it seems important to investigate whether online discussion strengthens preexisting attitudes on both sides of the dispute or prompts a more meticulous analysis of the respective arguments. The substantial expansion of social media highlights the necessity for further research on the influence that these platforms exert on polarization in opinion-based groups.

The current paper also has limitations. First, we did not succeed in acquiring relevant unpublished studies. While the funnel plot analysis revealed no evidence of publication bias in the current review, it would be sensible to incorporate gray literature and address this matter directly in future meta-analyses. Second, the samples of observations included in moderation analysis in meta-analysis varied largely in terms of quantity (as it stemmed from the distribution reflected in the research).

## Concluding remarks

The course of globalization that has characterized recent decades has prompted social psychology to rethink some civic concerns at a global level. Taken together, a dissected body of research provides evidence of the influence of identity processes on group dynamics in communities of like-minded people. Social identity in opinion-based groups seems to be an adequate concept to broaden and deepen the understanding of mechanisms determining effective answers to social challenges. Looking ahead, we see a need for more research on how group identities influence responses to various social challenges. Looking ahead, we see a need for more research on how group identities influence responses to various social challenges. Future studies should build upon the findings of this review, as they could offer valuable insights into fostering cooperation across diverse communities.

## Notes

1. Here we define political issues as pertaining mostly to matters related to the distribution of power within a society, laws and decision-making processes impacting public life, while social issues may be defined as referring to the well-being and overall quality of life of individuals and groups within a society.
2. The United Nations has become the forum to address issues that transcend national boundaries and cannot be resolved by any one country acting alone, with the initial goals focused on safeguarding peace or establishing the framework for international justice have expanded to address new challenges.

## Disclosure statement

No potential conflict of interest was reported by the author(s).

## Author note

We share our data for the meta-analytical analyses using https://osf.io/g6jf5/.

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*Article*

# Mind the Like-Minded. The Role of Social Identity in Prosocial Crowdfunding

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**Abstract**

Current social challenges have increased the interest in globally spread collective actions, especially those taking place in virtual space. Crowdfunding is one form of online activism that has recently gained importance. Although research conducted so far indicates the significance of social motives among participants of crowdfunding campaigns, knowledge about the psychosocial mechanisms involved in its effectiveness is limited. This article attempts to reinforce the position of crowdfunding as one of the forms of collective action and to expand knowledge about possible psychosocial factors that could shape participation in crowdfunding campaigns. In three preregistered studies ($N$ = 823), we found that the social identity based on a shared worldview positively correlated with the intention to participate in prosocial crowdfunding. Moreover, the relationship between opinion-based group identity and collective action varied depending on participation type (predicted vs. experienced engagement in a campaign). In other words, when people gather in communities built around shared opinions on a given social issue, they develop a sense of community, which can translate into activities for the benefit of the group such as supporting crowdfunding campaigns. However, in the case of actual behaviour, unlike with the declaration of participation, the strength of the relationship with social identity significantly diminishes. The results are discussed in relation to the theory of collective action.

**Keywords**

collective action, crowdfunding, social identity, group identification, intention to act, behavioural research

## Introduction

Individuals' membership in groups has significant implications for their experience and behaviour (Cartwright & Zander, 1968; Turner et al., 1987). Recent years have also seen an increase in research on collective actions within online communities (Agostini & van Zomeren, 2021). For

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example, campaigns coordinated by 'Fridays for Future' involved at least four thousand people to fund several projects on climate activism (raising almost $300,000). People cooperating within online groups could be driven by numerous psychosocial factors. Previous research demonstrated that other orientation (Zhang & Chen, 2019), prosocial motives (Dai & Zhang, 2019) and willingness to help others (Choy & Schlagwein, 2016) play meaningful roles in sharing financial resources online. Still, the phenomenon of crowdfunding remains on the margins of the debate conducted by social psychologists, and knowledge about its theoretical background and psychosocial components is scant. In this article, we attempt to address the question of whether the strength of collective identities predicts the motivation to unite, support and fund a project on prosocial crowdfunding.

We try to expand our understanding on why a group of strangers is willing to donate their money online, mostly anonymously and without any tangible rewards, to create goods that will benefit their group. Building on past collective action findings and, in particular, those that have documented the role of group identity in prosocial behaviour, the following research question is pursued: Does the social identification in opinion-based groups translate into participation in prosocial crowdfunding? We predict that (H1) strong social identity in opinion-based groups positively correlates with the intention to participate in prosocial crowdfunding campaigns, and (H2) the relationship between opinion-based social identity and collective action varies depending on participation type (predicted vs. experienced engagement in a campaign).

## *Psychosocial Factors of Collective Actions*

In the classical offline approach, collective action is defined as a collective effort aimed at improving the status of the in-group (disadvantaged), when it is situated in a more unfavourable position than the out-group (advantaged; Wright, 2009). From that perspective, it occurs mainly in the form of participation in protests and mass demonstrations, signing petitions, donating money to non-profit organisations or engaging in political participation (i.e. campaigning for a political party, Teorell et al., 2007) or political consumerism (i.e. boycotting certain products for ethical reasons, Stolle et al., 2005). When perceived threat from the disadvantaged group is relatively low, advantaged group members are more likely to experience collective guilt about their privileges, which decreases negative attitudes towards the disadvantaged group (Wohl et al., 2006) and increases the likelihood of allyship (Selvanathan et al., 2018). Currently, the outlined characterisation has also been extended to include acts of political solidarity with other groups (Becker & Tausch, 2015). Among the psychological predictors of this phenomenon at the group level, a special role is ascribed to social identity, which will be the main focus of this article.

The relationship between social identity and collective action has been demonstrated in many theoretical models emphasising the sense of belonging as a key factor of group mobilisation. According to the *Social Identity Model of Collective Action* (SIMCA), people take collective actions when they experience strong affective reactions to injustice, believe that their groups' actions can be effective and belong to social groups that can mobilise action (van Zomeren et al., 2018). However, according to the *Encapsulated Model of Social Identity in Collective Action* (EMSICA), the stronger the feeling of injustice and the belief in the group's effectiveness, the greater the identification with the group, which then translates into the tendency to participate in collective actions (Thomas et al., 2012). The recent *Model of Belonging, Individual differences, Life experience and Interaction Sustaining Engagement* (MOBILISE) suggests that participation in collective action is shaped on many levels: individual differences and life experiences lead to the formation of group consciousness, which in turn is the proximal predictor of collective action (Thomas et al., 2022). Undoubtedly, the role of social identity as a driver of collective action has

been at the centre of scientific attention. Therefore, it is worth focusing on the precise comprehension of its definition and specific aspects.

According to Tajfel (1978), social identity is '*that part of an individual's self-concept which derives from his knowledge of his membership of a social group together with the value and emotional significance attached to that membership*' (Tajfel, 1978, p. 63). Indeed, group identity forms both the attitudes and behaviour of members of a given community. As a result, individuals prefer their own group over out-groups and obey group norms or engage in activities aimed at maintaining the group's status. In general, group membership based on a nominal social category is noted as being equivalent to a subjective sense of belonging to a group. Keeping this in mind, women would always be an out-group to men, and vice versa.

However, collective action is often possible when group identity also includes ideological norms that emphasise intergroup competition and condemn the out-group, that is, when politicised social identity occurs (Turner-Zwinkels & van Zomeren, 2021). For this reason, identification with a specific social movement predicts participation in demonstrations more strongly than identification with a disadvantaged group solely (Stürmer & Simon, 2004). For example, identification with the feminist movement anticipated collective actions to a greater extent than just being a woman (Kelly & Breinlinger, 1995). The sense of belonging to a group is intensely subjective, and people do not become members of the group until they feel as though they are part of it (McGarty et al., 2009). In other words, to analyse the mechanisms underlying collective actions in the most reliable manner, it is crucial to consider not only social identities based on objectively assigned social categories (i.e. nationality or gender) but rather social identities formed on sharing common ideas (*opinion-based groups*).

Collective identification based on a shared worldview *(opinion-based groups*) builds a sense of group belonging when a given opinion on a specific social issue is experienced as a collective aspect of the self (Thomas & McGarty, 2009). Opinion-based groups offer a useful way of capturing participation amongst those who are apparently acting as members of collectives but do not identify with a formal organisation or as an activist (Bliuc et al., 2007). Research has shown that group identity based on a shared worldview determines collective action against global poverty (Thomas et al., 2012), support for migrants (Thomas et al., 2019), climate change (Bliuc et al., 2015), and support for LGBT (Górska et al., 2017). Overall, the perspective of group membership based on like-minded people seems to be the most adequate for analysing current global challenges, which definitely go beyond the nominal intergroup divisions.

## *Crowdfunding as an Online Collective Action*

As discussed earlier, the scope of activities defined as collective action has expanded over the past 20 years. Formerly, it was identified mainly with participation in protests, demonstrations or strikes (Klandermans, 2002). Subsequent research covered the many ways that individuals can take action to alter the group's position. One of the innovative courses highlights the transition from direct to indirect group actions, such as displaying flags in windows, honking car horns or toggling lights on and off. Those activities are noteworthy because of the low cost of participation, which enables non-activists to engage and easily express their support for the cause (see Baysu & Phalet, 2017).

Another recent development is the trend towards research on online engagement (Smith et al., 2018). Calls to action disseminated through social networks have been shown to increase mobilisation in the virtual world (Thomas et al., 2022). Mutual reinforcement between offline and online community activities has been demonstrated repeatedly (Foster et al., 2019). What is crucial is that collective engagement for the benefit of the group is directed by similar motivations on the Internet and in the real world. A recent meta-analysis confirmed that, despite the virtual

environment, group-level identity remains a key predictor of online collective action (Akfırat, et al., 2021). However, some researchers argue that online activism is not a direct driver of social change, does not represent genuine forms of mobilisation and may even reduce it (Morozov, 2009). Simultaneously, the paradigm of collective action in cyberspace is rapidly evolving.

A common characteristic of crowdfunding is the existence of a project founder who launches an online campaign to provide collective financial resources. The main idea is to enable small funding increments (e.g. 1$, 5$ and 10$) via social networking platforms (e.g. Kickstarter, Patreon and GoFundMe) and allow funders to communicate with each other as well as with funding recipients (Agrawal et al., 2015). In general, four main categories of platforms are distinguished depending on the resources obtained through the call: donations, rewards, debts and equity. In the current article, we refer mainly to donation crowdfunding.

Most studies of crowdfunding focus on the determinants of campaign success, analysing the characteristics of the project itself, personal attributes of project initiators or the crowdfunding experience of funders (Deng et al., 2022). Past research has identified several economic and psychological factors, and motivational components explaining involvement in projects from the backer's perspective, such as self-presentation and a willingness to improve social image (Cox et al., 2018), intrinsic and extrinsic motivation (Bagheri et al., 2019), the expected impact of one's donation (Kuppuswamy & Bayus, 2017), entrepreneurial intentions, perceived risk and perceived trust (Fanea-Ivanovici & Baber, 2021a, 2021b).

The goals of the initiatives represent a wide spectrum, including various prosocial actions aimed solely at community benefits. Indeed, prosocial, public-oriented campaigns tend to raise more money, which shows that people want to invest their social and financial resources in ventures that contribute to the community (Pietraszkiewicz, et al., 2017). Thousands of individuals may cooperate with others and distribute one's private money to the community (Dai & Zhang, 2019) and ones in need (Choy & Schlagwein, 2016). Zhang and Chen (2019) demonstrated that other orientation, defined as a backer's altruistic motivation to help others, has an impact on funding decisions. To put it another way, crowdfunding equips society with the apparatus to address and reach shared goals by relying on collective effort.

Among the factors enhancing involvement, the willingness to support the community of like-minded people and the desire to be part of a joint initiative has been revealed (Greenberg & Mollick, 2017). Qualitative research by Gerber and Hui (2013) proved that financial support through crowdfunding platforms can be an explicit way to signal an attachment to a specific social group. Gleasure and Feller's (2018) analysis of the records from Pledgie.com suggested that sharing collective objectives around identity was associated with more effective fundraising. However, group identification in the referred studies is defined in an imprecise manner, distinct from the conceptualisation and operationalisation applied in the field of social psychology.

To the best of our knowledge, the study by Wang et al. (2019) was one of the few that included the measurement of social identity in reference to the intention to participate in crowdfunding. In line with the hypothesis, it was confirmed that potential donors, who identified with the group engaging in charity, declared a higher willingness to participate in such campaigns ($r = .34$, $p < .001$). Also, Rodriguez-Ricardo et al. (2018) showed that social identification with the crowdfunding community has a positive and significant effect on the intention to participate in crowdfunding ($\beta = 0.48$, $p < .001$). We plan to replicate this effect, but rather than with any type of crowdfunding projects, we selected only prosocial crowdfunding projects which were opinion based. Thus, these are the first studies on the relationship between opinion-based social identity and the intention to participate or actual participation in a prosocial crowdfunding campaign.

It is also worth noting that the relationship between opinion-based social identity and collective action may vary depending on the type of participation (predicted vs. experienced engagement in a campaign). In other words, individuals who identify as a part of a like-minded group may

exaggerate their intention to donate money more than if they were actually spending it. Nonetheless, the measurement of declarations alone appears to be predominant in the field. A meta-analysis by van Zomeren et al. (2008) found that 79% of studies on collective action were based on declared intentions. Collective action research has been criticised in the past as being in large parts a 'science of self-report measures' (Berger & Wyss, 2021), which may affect the accuracy of drawn conclusions. Smith and McSweeney (2007) found that the intention to fund collective goals predicted the actual behaviour. However, the amount of variance in donating behaviours explained by intentions was quite small (14–16%). Moreover, the meta-analysis by Akfırat et al. (2021) showed that in the case of online collective actions, the relationship between group identity and intention was stronger than for actual involvement. This means that examining solely declarations may lead to oversimplification in explaining social behaviour.

### *Overview of the Current Research*

The aim of this article was threefold. First, we sought to establish that crowdfunding is one form of collective action. Secondly, we discussed possible psychosocial factors underlying participation in crowdfunding. Thirdly, we examined how the type of investigated participation may correspond with the accuracy of forecasted societal changes. More specifically, we investigate whether group identification coexists with engagement in a donation type of crowdfunding campaign. Additionally, we applied the opinion-based social identity concept to estimate the level of belongingness to the group. Moreover, we explore this relationship for two types of participation in collective action: willingness to donate money (intention) and archival donations (real behaviour). We predict that (H1) strong social identity in opinion-based groups positively correlates with the intention to participate in prosocial crowdfunding campaigns, and (H2) the relationship between opinion-based social identity and collective action varies depending on participation type (predicted vs. experienced engagement in a campaign).

The accuracy of forecasted societal change is conceptualised as the level of estimated discrepancy between declarative and actual behaviour. The validity of the links between psychosocial motives and collective action may vary depending on the operationalisation of the action. This issue will be addressed by testing two types of participation: predicted (declarative) versus experienced (real) engagement in a project. We present the results of three preregistered studies exploring the link between social identity and the intention to support crowdfunding campaigns (Study 1 and Study 2) or the actual support for a crowdfunding campaign (Study 3). In each study, we used a description of a genuine crowdfunding campaign from Kickstarter (Study 1 and Study 2) or Patreon (Study 3). In all studies, the minimum number of participants required was determined by an a priori power analysis using the software G*Power 3.1. A meta-analysis of the social identity-collective action relationship ($N$ = 10,051) found a medium-sized effect (= .38) for measures of group identity and participation in collective action across a variety of groups, contexts, issues, samples and methods (van Zomeren et al., 2008). Our power analysis indicated that a sample size of 260 would be sufficient to detect a marginally interesting effect ($r$ = .20) with a power of .95 and an $\alpha$ = .05. Datasets and the codebook from all studies are publicly available at https://osf.io/kab93/.

## Study 1

In Study 1, we investigated whether the social identity of supporting environmental causes (healthy planet supporters) is positively correlated with the declared intention to support the cause of a belief-based crowdfunding campaign promoting ecological education (Hypothesis 1).

### Method

*Participants and Procedure.* Two hundred sixty-eight participants ($N$ = 268, 176 men) were recruited through Mechanical Turk without any additional requirements, except for speaking English, and were paid $0.3 US for completing a brief online questionnaire. The average age of the participants was 34.98 years *(SD* = 11.47). We excluded participants based on predetermined criteria: multiple participation attempts and failed attention checks.

First, we asked participants to carefully read the description of the crowdfunding project called '*World in Green*' (which aimed to support a podcast about maintaining a healthy diet and a healthy planet – see Appendix A at https://osf.io/kab93/). This was a genuine Kickstarter campaign, chosen by three competent judges in the process of a detailed evaluation of 27 previously successful campaigns (based on the project's prosocial character).

Next, we asked participants if they would support the podcast project and how much they identify with the group relevant to the project's goal (healthy planet supporters). The intention to support the campaign was defined as the average value of a declared donation to the project and was measured by asking participants 'How much money *would you donate* for this campaign?' using an original scale that ranged from 1 ($0) to 7 ($500). Next, social identity was measured using a 5-item scale (Bliuc et al., 2007) which captures different identity dimensions: similarity, content, identification as well as future and respect (e.g. 'I am like the other people who support healthy eating for a healthy planet' [$\alpha$ = .91]). The questions were adjusted in reference to the relevant group (healthy planet supporters). Participants rated their level of identity with each item using scales that ranged from 1 (*definitely not*) to 7 (*definitely yes*). Responses to items were averaged to create an overall index of social identity.

## Results

To simplify the comparison between results in all studies, the intention to support the campaign was also log-transformed. Table 1 presents correlation and descriptives for Social Identity and Level of Support. We ran a correlational analysis and found that declared support for the ecological project is positively associated with pro-ecological social identity, *rho* = .38, $p < .001$. Moreover, the identification *rho* = .39, $p < .001$ and similarity *rho* = .36, $p < .001$ sub-dimensions of the social identity were most strongly correlated with participants' intention to back the campaign, while the respect dimension had a relatively weaker effect *rho* = .18, $p < .001$ (see Table 2). Thus, we found preliminary evidence for hypothesis 1 – people who said they would support the healthy planet podcast did indeed identify more with the healthy planet social group. Unsurprisingly, this effect would suggest that social identity formed on a similar worldview appears to motivate our willingness to cooperate with others for benevolent purposes, even when the cooperation takes place online in a crowdfunding context.

## Study 2

In order to exclude the alternative explanations and replicate our finding, we aimed to test whether the same positive correlation appears when we switch the context of the crowdfunding campaign to a different cause, namely, diversity and cultural tolerance. Additionally, this time we measured social identity first, and we used more detailed sub-scales for its measurement.

### Method

*Participants and Procedure.* A sample of two hundred sixty-three English-speaking participants ($N$ = 263, 160 men) was recruited through Mechanical Turk without any additional requirements.

**Table 1.** Correlation and Descriptive Statistics of Social Identity and Level of Support in Studies 1–3.

| | Social Identity (SI) | | | | Financial Support (FS) | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | Raw | | Log | | Spearman's |
| | Scale | *M* | *SD* | Scale | *Mdn* | *Rng* | *M* | *SD* | *Rho* |
| Study 1 *N* = 268 | 5-item (Bliuc et al., 2007) $\alpha$ = .91 | 5.29 | 1.21 | Declared donation 1 = $0 2 = $1 3 = $25 4 = $50 5 = $100 6 = $250 7 = $500 | 25.00 | 500.00 | 2.43 | 1.88 | .38** |
| Study 2 *N* = 263 | 14-item (Leach et al., 2008) $\alpha$ = .95 | 5.21 | 1.00 | Declared donation 1 = $0 2 = $1 3 = $5 4 = $10 5 = $25 6 = $50 7 = $200 | 10.00 | 200.00 | 1.92 | 1.44 | .46** |
| Study 3 *N* = 292 | 5-item (Bliuc et al., 2007) $\alpha$ = .85 | 5.49 | 1.07 | Actual donation level 1 = $3 2 = $5 3 = $10 4 = $20 5 = more | 5.00 | 39.00 | 1.75 | .62 | .10* |

*Note.* one-tailed Spearman correlation in Study 3. **$p < .001$; *$p < .05$.

We offered a small compensation for completing a brief online questionnaire ($0.3 US). The average age of the participants was 34.40 years *(SD* = 10.90), with a range of 19–76 years. We used the same exclusion criteria as in the previous study.

This time, participants first rated their identity with the community of activists advocating for tolerance, respect and acceptance for all cultural representatives, and afterwards, their task was to carefully read the description of the crowdfunding project called '*Power in Diversity*' (which aimed to support the podcast promoting diversity and multiculturalism). This was a real Kickstarter campaign, chosen from a strictly selected successful campaign with similar criteria to those used in Study 1 (details are presented in SM). Finally, their intention to support the project was measured.

## Measures

We employed an alternative and more detailed social identity measurement scale using a 14-item scale (Leach et al., 2008) which consists of two subscales capturing self-definition (on two dimensions: individual self-stereotyping and in-group homogeneity) and self-investment (on three dimensions: solidarity, satisfaction and centrality; e.g. 'I feel committed to diversity and

**Table 2.** Correlation and Descriptive Statistics of Social Identity Dimensions and Level of Support in Studies 1–3.

| | Social Identity (SI) | | | Financial Support (FS) | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | | Raw | | Log | | |
| | Dimension | *M* | *SD* | *Mdn* | *Rng* | *M* | *SD* | *Spearman's Rho* |
| Study 1 (*N* = 268) | Similar | 5.17 | 1.43 | 25.00 | 500.00 | 2.43 | 1.88 | .36** |
| | Identify | 5.11 | 1.47 | | | | | .39** |
| | Content | 5.20 | 1.39 | | | | | .31** |
| | Respect | 5.65 | 1.26 | | | | | .18** |
| | Future | 5.32 | 1.49 | | | | | .33** |
| Study 2 (*N* = 263) | Self-definition[a] | 5.24 | .95 | 10.00 | 200.00 | 1.92 | 1.44 | .44** |
| | Individual self-stereotyping | 5.16 | 1.20 | | | | | .43** |
| | In-group homogeneity | 5.33 | 1.00 | | | | | .28** |
| | Self-investment[a] | 5.18 | 1.16 | | | | | .44** |
| | Solidarity | 5.15 | 1.15 | | | | | .40** |
| | Satisfaction | 5.32 | 1.16 | | | | | .33** |
| | Centrality | 5.01 | 1.41 | | | | | .45** |
| Study 3[b] (*N* = 294) | Similar | 4.61 | 1.49 | 5.00 | 39.00 | 1.75 | .62 | .10 |
| | Identify | 6.10 | 1.26 | | | | | .01 |
| | Content | 4.82 | 1.38 | | | | | .03 |
| | Respect | 5.72 | 1.36 | | | | | .14** |
| | Future | 6.18 | 1.32 | | | | | .17** |

[a]No significant differences in correlations with financial support for the project.
[b]One-tailed Spearman correlation in Study 3.
**$p < .001$; *$p < .05$.

multiculturalism supporters'[α = .95]). The purpose of that modification was to test whether the self-investment dimension, including solidarity with the group component, would be specifically related to the willingness to act for the benefit of the group (see Leach et al., 2008). The questions were adjusted in reference to the relevant group (diversity and tolerance supporters). Participants rated their level of identity with each item using scales that ranged from 1 (*definitely not*) to 7 (*definitely yes)*. Responses to these items were averaged to create an overall index of social identity.

Next, similarly to the previous study, the intention to support the campaign was defined as an average value of a declared donation to the project and was measured by asking participants 'How much money *would you donate* for this campaign' using an original scale of support from 1 ($0) to 7 ($200). It is also worth noting that to maximise mundane realism in Studies 1 and 2, we used a scale of financial support corresponding to the real campaigns on Kickstarter. In the authentic projects, the participants could not indicate any amount but could only decide on a predefined value for the donation.

## Results

As seen in Table 1, a correlational analysis again revealed that the level of social identity with the diversity group is related to the quantity of declared financial support, $rho = .46$, $p < .001$. All measured identity subscales and dimensions were related with the intention to back the campaign on a similar level, except for in-group homogeneity $rho = .28$, $p < .001$ and satisfaction $rho = .33$, $p < .001$ with slightly smaller effects (see Table 2). The results imply that people who felt closer to

the members of the social group encouraging multiculturalism declared more financial support for the diversity-promoting podcast. Interestingly, the correlation between social identity and declared support was stronger than in Study 1. This difference in the strength of the correlation could possibly be attributed to more relatable context of the study, namely, social inequalities and racial discrimination. Another likely explanation is that we may have primed all participants with the feeling of belongingness to the particular group by asking them to rate their social identity before they read the description of the campaign. According to the Inclusion/Exclusion Model (Schwarz & Bless, 1992), chronically or temporarily accessible information influences our judgement. This might result in an assimilation effect, meaning that comparison with other pro-environmentalists could have strengthened self-categorisation as a campaign funder, which led to larger declared support.

## Study 3

In our final study, we again wanted to replicate the pattern of obtained results and further test the hypothesis using an authentic crowdfunding project. This time, we analysed actual support for an ongoing real-life campaign among planet protection supporters.

### Method

*Participants and Procedure.* Two hundred ninety-two participants ($N$ = 292, 279 men) were recruited from the group of supporters of the *'Just Have a Think'* project via the Patreon platform, which aims to educate people about planet protection and raise awareness for environmental issues. The actual project's creator was involved in collecting the data: all backers received invitations to participate in our study without any exclusions. The average age of the final sample of participants was 57.46 years *(SD* = 14.50), with a range of 21–85 years.

The supporters' task was to indicate the amount of money donated every month to the project funder. Afterwards, they rated their identity with the community of activists building awareness of environmental issues.

Actual support for the project was measured by identifying participants' level of monthly donation (in dollars) using an original scale of support from 1 ($3) to 4 ($20). Due to no significant differences in correlations with particular sub-dimensions of social identity subscales in Study 2 (see Table 2), we used the 5-item scale of social identity (Bliuc et al., 2007) (α = .85) from Study 1. The questions were adjusted in reference to the relevant group (planet protection supporters). Participants rated their level of identity with each item using scales that ranged from 1 (*definitely not*) to 7 (*definitely yes*). Responses to these items were averaged to create an overall index of social identity.

## Results

As seen in Table 1, actual support for the project is again positively correlated with social identity, yet the strength of this relationship is significantly smaller, *rho* = .10, $p$ = .03 (one-sided). This finding revealed that people who actually provided financial support for the pro-environmental podcast were high-identifiers with the planet protection social group[1]. It is also worth noting the specificity of the Patreon platform, which is more engaging and recursive than Kickstarter. Kickstarter is mainly used for one-time projects, while backers on Patreon provide financial support on a monthly basis, with the possibility of resignation at any time. Nevertheless, even the assumption that a single Kickstarter donation may ultimately be higher than the total Patreon support does not explain such a significant difference in correlations. Moreover, it seems that in the

model of regular payments, the expected relationship between the sense of belonging to a group and financial support should be even stronger than in the case of a single payment.

Table 2 presents results detailing the different components of group identity in opinion-based groups. In Study 1, all measured identity dimensions have been related with the intention to back the campaign. In Study 2, we found no significant differences in correlations with particular social identity subscales. Additionally, since the self-investment dimension, including solidarity with the group component, did not have a significantly stronger relation to the willingness to act for the benefit of the group, $rho = .40$, $p < .001$, than other components, we decided to continue our examination with the previously implemented scale. Study 3 showed that only Future and Respect components are correlated with financial support for the project. Overall these results are in line with our assertion that prosocial behaviours would be associated with advocacy of the like-minded community and the desire to become a member of a joint initiative (Greenberg & Mollick, 2017).

## Discussion

The main goal of our study was to extend the knowledge of psychosocial factors underlying predicted versus experienced participation in online collective actions. It is worth highlighting that we examined genuine Kickstarter campaigns, chosen by three competent judges in the process of a detailed evaluation. By employing authentic projects, we attempted to maximise the realism and validity of our line of research. We demonstrated that the sense of social identity in groups based on a shared worldview positively correlates with the intention to participate in prosocial crowdfunding in different contexts: pro-ecological (Study 1) and multicultural (Study 2). Moreover, the relationship between opinion-based social identity and collective action varies depending on participation type: predicted versus experienced engagement in a campaign (Study 3). Put simply, people who gather in communities built around shared opinions on a given social issue develop a sense of community, which can translate into activities for the benefit of the group such as supporting crowdfunding campaigns. However, in the case of actual behaviour, unlike a declaration of participation, the strength of this relationship with social identity significantly diminishes. Overall, our research expands the knowledge about possible psychosocial factors that could shape participation in collective actions in cyberspace.

In general, our analysis broadens the perspective of online collective actions with the scope of participation in crowdfunding campaigns. According to the extended definition, collective actions can be addressed not only to members of the in-group but also as a gesture of solidarity with the out-group (Becker & Tausch, 2015). Prosocial projects aimed at supporting the community can be framed by the discussed theoretical background. Furthermore, as a medium predominantly devoted to global challenges, they seem to represent collective actions of a conversionary type (Wright, 2009). Specifically, their goal is not to improve the status of the in-group (as in competitive collective actions) but rather to convert as many non-members as possible to join the in-group and adapt its normative worldview. To illustrate, in the pro-environmental community for the most part the offered general message is that ‘everyone should be an environmentalist’, instead of ‘environmentalists should be treated better’. Expanding the domain of collective actions in a virtual world with crowdfunding could provide the most appropriate theoretical lenses and advance the comprehension of novel forms of social activism.

Although our work replicated and extended past research, some authors argue that group identity may not be crucial in crowdfunding. Bennett et al. (2008) propose a new concept of *connective action* that does not operate on the basis of shared group identity. Particularly, Bennett and Segerberg (2012) argued that collective action of the new, digital era calls for a different structuring principle, namely, the logic of connective action. In their view, communication technologies imply an organisational guideline that differs from notions of collective action based

on basic assumptions about the role of resources, networks and social identity. In connective logic, participating in public effort or contributing to a common good translates into the act of personal expression and recognition or self-validation rather than a group-inspired response to a crucial social matter.

Our research highlights a different set of dynamics than those presented by Bennett and Segerberg (2012). Our data show that in crowdfunding settings, social identity plays a significant role in committing to collective efforts. We propose that the personal decision to support opinion-based in-groups may stem from identification with a community of like-minded individuals. It is important to note that in the discourse associated with this standpoint, online activities are particularly applicable only to social media usage (e.g. Priante et al., 2018).

In general, the key conclusion of our research is that the intention to contribute to crowdfunding campaigns (predicted involvement) is strongly associated with group identity. More precisely, people who gather in communities built around the same opinions on a given social issue develop a sense of collective that can result in predicted collective action for the group's benefit. Our findings are consistent with the theoretical models of collective action, where social identity performs a leading role (see, e.g. Thomas et al., 2022). Additionally, it confirms the results of numerous studies showing that identification with a group is a moderately strong predictor of households' pro-environmental behaviours (Fielding & Hornsey, 2016; Keshavarzi et al., 2021), citizens' willingness to integrate with immigrants (Pinto et al., 2020), approval for racial equity (Selvanathan et al., 2018) and supportive attitudes towards different sexual orientations (Górska et al., 2017). Moreover, we shed light on the validity of incorporating the concept of opinion-based group identity to explore the motivations of social activists in cyberspace. Indeed, despite the lack of physical proximity, people with similar worldviews are able to organise themselves and mobilise others on a massive scale. Individuals prove able (now as ever) to succeed in harnessing social identities that connect and integrate people across individuals' social networks (Spears & Postmes, 2015). According to a recent meta-analysis by Agostini and van Zomeren (2021), identification with an opinion-based group has as strong a moderate effect ($r = .44$) on collective action as a politicised identity. Nevertheless, it is important to stress that the sense of group identity is not utterly constant but rather dynamic and flexible, as it can be adjusted depending on the relevant context (Fielding & Hornsey, 2016). In a world where people have multiple social identities and belong to different groups, an opinion-based perspective may be essential to apprehend the commitment to social change (Besta et al., 2019).

The results of our three studies also extend the state of knowledge to be used by practitioners, that is, creators of crowdfunding campaigns. Based on the conclusion that people who gather in communities built around shared opinions on a given social topic develop a sense of community which can translate into activities for the benefit of the group, some practical tips can be created. First of all, in the description of the campaign, it is worth emphasising the worldview behind it, especially in relation to the purpose of the project. Strengthening the message to the representatives whose specific views are addressed in the campaign should activate the sense of community with a group that unites forces for a prosocial goal. In addition, it is also vital to frame the sense of community by using the forms 'we', 'us', and 'with us' in the message and focus on intrinsic cues, which could also activate identity at the group level (see Defazio et al., 2021).

Another way to strengthen backers' involvement in campaigns is to shape the community around the project, using social media. Social media interactions are a crucial discriminating factor for the success of crowdfunding campaigns (Borst et al., 2018). Importantly, group members not only become donors themselves, but they may also recruit people from their social networks to the project. This path affects not only targeting the right group but also expanding the circle of potential fundraiser participants (see Salem et al., 2022). To overcome social fragmentation and latent ties in the external networks of leading activists, project funders should expand their

cooperation by reaching new audiences. Establishing relationships with relevant public and social figures could help reduce limitations related to network dispersion and homophily (González-Cacheda & Cancela, 2022).

Additionally, we demonstrated that the type of investigated participation may influence the accuracy of forecasted societal changes. More precisely, the relationship between opinion-based social identity and collective action varied depending on participation type (predicted vs. experienced engagement in a campaign). Although many theoretical models explaining human behaviours, such as the theory of reasoned action (Ajzen & Fishbein, 1980), the theory of planned behaviour (Ajzen, 1991) or attitude-behaviour theory (Triandis, 1980), suggest that behavioural intentions are a reliable indicator of actual performance, there is a growing body of the literature that recognises the importance of the behavioural gap between declarations and behaviours (see Doliński, 2018). As a matter of fact, a meta-analysis showed that a medium-to-large change in intention leads to a small-to-medium change in behaviour (Rhodes & Dickau, 2012; Webb & Sheeran, 2006). Below we will discuss possible explanations for the presented results.

The first category of rationales is an attempt to clarify how the specificity of the main collective action motivators themselves could have contributed to the discrepancy between behaviours and declarations. The key considered direction seems to be the dynamics of changes in the level of perceived group identification during the process. According to Klandermans (2002), the relationship between identification and protest participation can go either way: identity fosters participation, and participation reinforces identification. That implies that after participating in a successful campaign, group identity should increase and be even more strongly associated with activity for the benefit of the group. On the other hand, studies on the consequences of collective mobilisation focus mainly on protests, are qualitative (Vestergren et al., 2019) and rarely include people who only declare their willingness to participate in such activities. Therefore, future analyses could explore and cover the entire process of identity stimulation, development and strengthening (see Priante et al., 2018), especially in the context of cyberspace.

Another aspect to consider is the potential impact of group identification on the superordinate level. Namely, the global nature of social issues in the investigated crowdfunding projects could stimulate identification with humanity to a greater extent than with the opinion-based group itself. Following the logic of Social Identity Theory, McFarland et al. (2012) demonstrated that identification with all humanity predicts greater concern for global human rights and humanitarian needs. In line with these findings, it has been shown that identifying with the global community enhances the intentions of pro-ecological activities and intergroup support (Reysen & Katzarska-Miller, 2013). Conversely, research suggests that invoking a superordinate identity or common humanity might not serve as a social panacea for global mobilisation (Ufkes et al., 2016). Part of the problem is defining 'what it means' to be human, that is, what specific norms, values and beliefs this implies (Greenaway & Louis, 2010). Moreover, attempts to create an inclusive, superordinate group almost inevitably anticipate minimising subgroup (advantaged and disadvantaged) differences and might further undermine or 'pacify' disadvantaged group members (Wright & Lubensky, 2009). Nevertheless, our study examined neither advantaged nor disadvantaged groups; thus, it seems that superior identity could not reduce identification with relevant subgroups or significantly impact the declarations-behaviour dimension.

An alternative perspective is to scrutinise what the potential barriers of participation in collective action may be and whether they could explain the discrepancy between declarations and actual behaviour. When it is necessary to improve the in-group status, apart from engaging in a group effort or upward mobility (i.e. leaving the group), members of the community can also employ social creativity strategies (Becker, 2012). This concept covers alternative ways of identity management, such as comparing one's group to a different group that fares worse on this dimension ('minorities have a lot fewer rights in other communities') or endowing in-group morality

on an alternative dimension ('we pay a lot of foreign aid'). However, acknowledged strategies are applicable to the groups emerging around the asymmetry of power and status, while the mechanism in the case of opinion-based groups remains uncovered. It seems more likely that actual participation in crowdfunding projects may be inhibited by the belief in a just world (Jost & Banaji, 1994). Indeed, studies showed that people who believe in a just world are less interested in collective effort because they are assured that in a just world all will turn out well eventually (Stroebe, 2013). From that standpoint, potential supporters of prosocial campaigns dedicated to cultural diversity may believe that the global community will naturally lead to equality between representatives of different cultures, so their involvement is unnecessary.

Another possible explanation for this *lip service* in terms of support for groups might also be social desirability bias (Wood et al., 2016). In general, respondents' need for social approval, self-presentation concerns and impression management strategies yield socially desirable responses on the individual level (Krumpal, 2013). We all strive to be viewed favourably by others, and this may influence our declarations of financial support since the amount donated is a token of generosity and thoughtfulness. This effect should be even larger for pro bono and volunteering projects (as paid work and consumerism projects instigate weaker group ties, see Bauman, 2007). That effect is also expected to be stronger considering the prosocial causes of hypothetical help. Thus, participants could have simply increased the levels of their declared and hypothetical (potential) donations. Moreover, research proved that people tend to be much more generous when a donation is made in public rather than in private settings, which is likewise driven by reputational concerns (Sjåstad, 2019). As a matter of fact, it may be possible to increase helping behaviour by directly priming self-representations that are compatible with benevolence (Kraut, 1973).

### *Limitations*

The current study has several limitations. It seems possible that changes in the order of variable measurement might impact the results. Still, we made two attempts with different approaches (measuring social identity first and measuring intention to participate in a crowdfunding campaign first) and achieved consistent effects. Notably, it is also important to stress that we did not control the potential impact of social identities based on nominal social categories (e.g. nationality). Future research could explore the interplay of group identities and their influence on mobilisation in the virtual world (see Akfırat et al., 2021).

Another one would be to interpret the current results by the agency of human motivation and its cognitive implications. According to the theory of identity-based motivation (IBM), people prefer to make sense of situations and act in ways that feel congruent with their important social and personal identities (Oyserman & Dawson, 2020). It means that we simply ask ourselves what feels more like an 'us' thing to do and follow that identity-relevant course of action without paying attention to message quality. If the identity-based approach offers simple-to-answer questions, then the information-based approach requires coping with complicated-to-answer questions. Yet, the low strength of an association between social identity and actual behaviour (Study 3) may be attributed to a stronger preference for more absorbing information processing among pro-environmentalists. In other words, backers who are equipped with advanced knowledge of ecological issues and are accustomed to formidable questions may not need to convert to identity cues.

## Conclusions

In conclusion, we demonstrated that decisions about financial support for prosocial projects may be guided by a sense of group identification with other people who share a similar worldview. In

addition, actual crowdfunders seem to be less prone to social identity than declarative supporters. Our research shows that online collective action represents a valuable direction for further research, especially when considering the discrepancy between the intentions and behaviour of potential activists.

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## Note

1. In Study 3, we also measured the average annual income of participants. Yet, the correlation with the level of financial support was low *rho* = .21, $p$ = .01.

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# AI in the Eye of the Beholder:

# How Group Membership and AI Controllability Shapes User Acceptance

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**Abstract**

Across two exploratory studies ($N$ = 747), we examined how group identification and perceived AI's controllability shape the acceptance of AI. Our findings suggest that identification with opinion-based groups (AI fans vs. opponents) may determine differences in attitudes toward AI. Additionally, AI with intentions (high controllability) was more readily accepted than AI with emotions (low controllability). Yet, participants who strongly identified with AI supporters showed higher acceptance, particularly when interacting with AI with intentions. In contrast, low-identifying participants' attitudes remained stable across AI capabilities. These results indicate that group affiliations and perceptions of AI traits could form attitudes toward AI. Further research should investigate the influence of social identity and AI's ability to understand human mental states on user engagement.

*Keywords*: Artificial Intelligence, acceptance of AI, social identity, AI controllability, opinion-based groups

Upon its development, Artificial Intelligence (AI) and more specifically AI chatbots, generated substantial public interest and concern (Jiang et al., 2024)[2]. Key considerations included the fear that AI might replace human workers (Vaast & Pinsonneault, 2021), or mimic a wide array of human traits (see Kaplan & Haenlein, 2019). A vast body of research revealed that public acceptance of AI was determined by factors like users' technological familiarity or cultural views on automation (Kelly et al., 2023). Worries were particularly high when AI was used for critical tasks, such as making unsupervised medical diagnoses (Yokoi et al., 2020), but were significantly lower when AI was assigned routine jobs, such as reviewing language or correcting prescriptions (Ali et al., 2023). Naturally, the approach towards AI may differ between enthusiasts and skeptics of AI development, particularly when they act in alignment with the collective self (Turner & Tajfel, 1986). Indeed, preferential attitudes, behaviours, or intentions often stem from group affiliation, especially when it is based on shared beliefs (Monik & Parzuchowski, 2024).

User acceptance of AI technologies has been studied from various theoretical perspectives. The Technology Acceptance Model (Davis, 1985) focuses on perceived usefulness and ease of use as key predictors of technology adoption. Similarly, the Unified Theory of Acceptance and Use of Technology (Venkatesh et al., 2003) examines individual factors like performance expectancy, social influence, effort expectancy, and facilitating conditions. The AI Device Use Acceptance model (Gursoy et al., 2019) includes three acceptance stages and six components: social influence, hedonic motivation, anthropomorphism, performance expectancy, effort expectancy, and emotion. Studies have consistently validated these models, showing that perceived usefulness, performance expectancy and effort expectancy were key predictors of AI adoption (Liu & Tao, 2022;

[2]AI is defined as an "unnatural object or entity that possesses the ability and capacity to meet or exceed the requirements of the task it is assigned when considering cultural and demographic circumstances" (Kelly et al., 2023, p. 2).

Strzelecki, 2023). These factors have been linked to AI use in public transport (Kuberkar & Singhal, 2020) or education (Kashive et al., 2020). Additionally, trust has substantially shaped user acceptance of AI (Schepman & Rodway, 2022). Zarifis and colleagues (2020) found that people exhibited higher trust and fewer privacy concerns when purchasing health insurance without visible AI. Similarly, trust in autonomous vehicles could be increased by ensuring data security and user control (Meyer-Waarden & Cloarec, 2022). Furthermore, peer approval amplified positive perceptions of AI (Chi et al., 2022). Nevertheless, none of these models sufficiently addressed group-related antecedents.

The purpose of this study is to explore whether psychosocial factors influence the acceptance of AI, namely if people identifying with the group of AI supporters are indeed more willing to approve and incorporate AI-fuelled solutions in everyday lives. Moreover, we aim to address the limited knowledge of how AI's perceived controllability - specifically its ability to experience emotions or form intentions - affects people's attitudes. We expected that individuals would be more inclined to accept AI agents capable of intention.

**Group Dynamic on AI Acceptance**

Social Identity Theory (Turner & Tajfel, 1986) states that individuals derive part of their self-concept from group affiliations, fostering preferences and favourable attitudes toward in-group members. Simply perceiving an out-group heightened the sense of threat to in-group distinctiveness and intensified in-group identification (Roccas & Schwartz, 1993). Social categorization has also been observed with artificial entities (Eyssel & Kuchenbrandt, 2012). For instance, studies have shown that artificial faces representing in-group members were perceived as more alive, more likely to possess a mind, experience pain, and devise plans than when these attributes were assigned to out-group faces (Krumhuber et al., 2015). Given these dynamics, we will examine two types of group identity as our predictors:

identification with an opinion-based community (seeing oneself as an AI supporter or opponent) and identification with all humanity (seeing oneself as a member of the entire human race; IWAH).

In the past decade, much research has focused on studies with human-robot dyads, showing that people react to robots in social interactions in similar (although not the same) ways to how they respond to humans (Mumm & Mutlu, 2011). Indeed, people used overlearned social behaviours, such as politeness or reciprocity, in their communication with computers. People expected human-like robots to follow human social norms (Syrdal et al., 2008), and applied stereotypes of human groups to robots (Bernotat et al., 2019). As AI entities become more social and more human-like, people may also feel greater empathy for them and treat AI applications more like (human) in-group members (see Vanman & Kappas, 2019). In this context, a particularly important question appears to be whether AI appearance activates one's intergroup perspective and how it shapes attitudes or behaviours towards AI-related issues.

People gathered around a shared worldview, regarded as an integral part of the collective aspect of the self, can constitute a separate group category that has a real impact on social reality through their actions (McGarty et al., 2009). Social identity within opinion-based communities has determined support for causes like global poverty, migration, and climate change (e.g., Hoskin et al., 2019; Thomas et al., 2020), but has also led to mobilization against vaccination and abortion laws (Maciuszek et al., 2021; Besta et al., 2019). In light of this evidence, identification with the AI-supporter community may shape social behaviour, influencing whom people associate with or support. Group affiliation may not only govern human-human interactions (Monik & Parzuchowski, 2024) but also affect AI-human relationships. Viewing AI through the lens of in-group favouritism or out-group

solidarity may influence the process of the adaptation of AI within society. Positive intergroup experiences can establish social norms geared toward cooperation with members of a supportive group. Conversely, when AI interacts with a group opposing its development, it may automatically perceive and categorize community members of as threatening, thereby amplifying antagonistic behaviours. Thus, it appears that opinion-based intergroup dynamics could have a profound impact on the patterns through which relationships with AI are shaped.

The second type of group identification (IWAH) has been significantly positively related to concern for global poverty and injustice, commitment to human rights, and support for international charities, while at the same time being negatively associated with ethnocentrism, right-wing authoritarianism, and social dominance (Hamer et al., 2019; McFarland et al., 2012). It can serve as a category, activating people's sense of common ground in the face of different social changes and challenges. Research to date has primarily focused on the impact of various aspects of robotization on the dynamics of human-human relationships, such as the reduction of intergroup prejudices mediated by panhumanism. Evidence has been optimistic, showing that the presence of robots (the out-group) can increase solidarity between human groups (Jackson et al., 2020). In a recent study, Wang and Peng (2023) demonstrated that AI experience positively predicted human identity, meaning that individuals with greater AI expertise might be more prone to view AI as an external group distinct from mankind, which therefore could enhance their subjective feeling of belongingness with all humans in the world. However, it has not been tested whether heightened identification with all humanity influences attitudes toward robots as a group.

**Influence of Perceived Controllability on AI Acceptance**

Judgments of control play a significant role in shaping our perceptions and responses to a broad range of social phenomena. Controllability refers to the influence one has over

their surroundings (Na et al., 2023). People tend to assimilate controllability information when evaluating the mental states of others (Lebowitz & Ahn, 2014). However, the degree of control varies by mental state. In six studies (2019) Cusimano and Goodwin demonstrated that lay people attribute to others a high degree of control over their mental states, with emotions systematically perceived to be lower in control than other kinds of mental states (e.g. beliefs, desires, evaluation), especially manifestations of intentions. Therefore, interacting with an agent showing emotions is a prototypical example of an uncontrollable experience, while communicating with the agent revealing intentions may serve as a prototypical example of a controllable experience.

The interplay of control and trust is crucial for the development and implementation of autonomous AI-driven systems (Castelfranchi & Falcone, 2000). In a broader sense, control can complement or even substitute trust, particularly when it helps reduce the probability of deviations, mistakes, or violations. Consequently, objects that can predictably interact with their environment and demonstrate control over their actions inspire more favourable attitudes among users (see Díaz-Rodríguez et al., 2023). The perception of controllability in AI may stem from the extent to which they are recognized as possessing human-like qualities. This connection is grounded in the fact that familiarity with being human serves as the most intuitive reference point for interpreting behavior (Broadbent, 2017). As a result, anthropomorphism—the attribution of human characteristics to non-human entities—shapes the way we infer mental states in AI systems. For example, the “o1-preview” chatGPT model displays a thinking-verifying-analysing status when generating its responses to users’ prompts, simulating deliberate human-like reasoning. Similarly, its predecessor, GPT-4o, was reportedly capable of identifying and interpreting users' emotions through voice. Those features may enhance the detection of the anthropomorphic capabilities of AI entities.

Yin and colleagues (2021) demonstrated that robots endowed with high mental capabilities generated more pronounced aversion compared to those with lower mental abilities. The aversion was evident regardless of the robot's physical appearance; participants felt significantly more unsettled when informed that a robot possessed certain cognitive faculties, whether it exhibited a human-like or mechanical form (Gray & Wegner, 2012). Similarly, efforts to imbue AI chatbots with emotional qualities, such as recognizing human emotions (Ong et al., 2019) or displaying facial expressions (Mishra et al., 2023), have been shown to provoke unease rather than enthusiasm among users. Appel and colleagues (2020) further explored this phenomenon by distinguishing between two dimensions of mental states in robots: experience (the capacity to feel) and agency (the capacity to plan and act). The findings revealed that robots endowed with the capacity to feel generated stronger feelings of eeriness than those capable of planning and self-regulation (agency). Complementing these findings, research on job displacement has highlighted heightened discomfort when individuals contemplate losing roles with emotional components to machines, as opposed to tasks requiring primarily cognitive skills (Waytz & Norton, 2014). Taken together, these findings indicate that individuals' perceptions of AI mental states significantly shape their reactions to these systems. Higher levels of emotional components may lead to decreased user acceptance.

**Research Goals**

This research aimed to explore the limit to how much people are willing to accept AI. We tested whether people's willingness to cooperate with AI could be rooted in the strength of identification with a meaningful social group based on shared opinion and broader with all humanity. Second, we hypothesized that people might exhibit a more disapproving stance towards AI with less predictable mental states (more fluent in operating beyond algorithmic

constraints). Lastly, we expected that group affiliation would influence attitudes toward AI depending on the mental states an AI application could simulate.

Thus far, no research has investigated the combined interplay of perceived controllability of AI and group identity on shaping users' attitudes toward AI. We predicted that users with stronger social identity with opinion-based group of AI supporters will be more likely to accept AI entity with highly controlled mental states (intention) than those with low controllability (emotion). The difference may be driven by the alignment of controllable AI with group norms prioritizing predictability and cooperation, while emotional AI may provoke unease due to its unpredictable nature. As mentioned, social identity fosters a sense of shared goals and cooperation within the in-group (Hoskin et al., 2019; McGarty et al., 2009). When AI systems exhibit intentionality, it signals predictability and agency, which aligns with group norms around trust and control (Castelfranchi & Falcone, 2000; Díaz-Rodríguez et al., 2023). That would be particularly appealing to groups advocating for AI adoption, as controllable AI can be framed as a reliable collaborator. Emotions are inherently less controllable, leading to interactions that feel unpredictable and unsettling (Cusimano & Goodwin, 2019; Ong et al., 2019). For participants in opinion-based groups, this unpredictability may contradict group norms emphasizing trust and control. Moreover, we expected that people with high level of IWAH would present less favorable approach towards AI, especially when it simulate emotions. AI displaying emotional expressions may be recognized as engaging in "human-like" social behaviors and evoke a sense of out-group threat (Jackson et al., 2020).

We conducted two studies to address these gaps in the literature. Study 1 examined if AI users’ acceptance towards a humanlike AI chatbot (the App) could be predicted by two

social identities. In Study 2 we explored how both group identification and perceived AI controllability (AI mental states) interacted when explaining user acceptance.

## Study 1

In Study 1, we explored the relationship between different types of group identification and attitudes towards AI. Specifically, we examined the level of acceptance of AI among high and low identifiers with the AI supporter community (social identity in an opinion-based group) and among high and . low identifiers with all people in the world (human identity). We assumed that the acceptance of AI would be significantly higher among like-minded people with higher social identification, and acceptance of AI would be significantly lower among people identifying more strongly with all humankind. The full dataset is available on the Open Science Framework https://osf.io/b2kyc/?view_only=f94514a5c154440f80ad71be2b7b9c6d.

### Method

The participants were 342 students from a Polish university in exchange for partial course credit (74% women; $M_{age}$ = 27.5 years, *SD* = 7.88). We excluded participants based on predetermined criteria: failed attention checks and low scores on a 10-item vocabulary test measuring English fluency (as the study was conducted in English). Participants completed an online survey via the Qualtrics platform individually and anonymously.

First, we asked participants to imagine that an AI-driven application, similar to ChatGPT, had recently been developed and carefully consider a groundbreaking genre of the application that had been designed to possess the capacity to experience sensations, have desires, engage in speculation, engage in thought processes, interact, and exhibit intentions, much like oneself and other individuals. Then, we measured the level of Acceptance of AI

with four items that ranged from 1 (*definitely not*) to 5 (*definitely yes*): “Please consider if you would like to use such App”,” How afraid you would be to come into contact with the App“, “Please consider whether you would support a government decision to fund the App”, “Would you support protests (e.g., sign a petition, participate in a demonstration, back crowdfunding project, post on your social media) against the government's decision to fund the App?”. Each question evaluated and averaged about 10 different mental states that the application was supposed to simulate (personality, morality, memory, intention, imagination, emotion, desire, deliberation, beliefs, and evaluation). The final score was the mean of four questions, where two items regarding fear of AI and collective action against AI were recoded.

Next, social identity in the opinion-based group was measured with a five-item scale (Bliuc et al., 2007) which captures similarity, content, identification, future and respect as different identity dimensions (e.g., “I am like the other people who support healthy eating for a healthy planet” [$\alpha$ = .91]). The questions were adjusted in reference to the relevant group (AI development supporters). Participants rated their level of identity with each item using scales that ranged from 1 (*definitely not*) to 5 (*definitely yes*). Responses to items were averaged to create an overall index of social identity. The Cronbach's α reliability coefficient of the scale was .84.

Finally, to measure IWAH, a nine-item version of the Identification with All Humanity Scale was used (McFarland et al., 2012). Questions included, for example: “How close do you feel to each of the following groups?” and “How often do you use the word ‘we’ to refer to the following groups of people?” including identification with and concern for particular groups (from the immediate family to people all over the world). The raw score for identification with all humanity was the mean of the items asking about identification with

"people all over the world." Responses were made on a 5-point Likert scale ranging from 1 (*not at all*) to 5 (*very close or very often*). The Cronbach's α reliability coefficient for IWAH was .86. To control the possible impact of individual factors, we also assessed several psychological traits, which have been demonstrated as significant for attitudes towards AI in previous studies. Park and Woo (2022) as well as Stein and colleagues (2024) showed that personality components like agreeableness exhibit a significant correlation with fear or acceptance of AI. User judgement about his ability to complete a specific task by using AI (Wang et al., 2021), and the tendency to actively engage in intensive technology interaction (Franke et al., 2019) have also been presented as a facilitator of favourable attitudes towards new technology. Taking into consideration those findings we evaluated: personality traits (10-Item Personality Inventory; Gosling et al., 2003), general self-efficacy (GSE, General Self-Efficacy Scale; Schwarzer & Jerusalem, 1995), self-esteem (RSE, 10-item Rosenberg Self-Esteem Scale; Rosenberg, 1979) and affinity for technology interaction (ATI, 9-item scale; Franke et al., 2019).

**Results**

To determine if the level of acceptance of AI was indeed higher for high identifiers with supporters of AI, we conducted a regression analysis. Results illustrated in Table 1 indicated that the higher the level of social identity with AI supporters the higher the level of Acceptance of AI ($b = .38$, $p < .001$). To test the second hypothesis concerning IWAH, we also performed a regression analysis. Contrary to our predictions, no significant effect has been found ($b = -.03$, $p = .57$), which stated that identification with all humanity is not associated with the level of Acceptance of AI.

Additionally, a multiple regression analysis was conducted to examine the predictors of acceptance of AI, including demographic information, psychological and psychosocial

variables[3]. As showed in Table 2, the model incorporating group factors significantly improved the fit compared to the model based on individual components ($R^2$ = .31, $\Delta R^2$ = .17, $F$(2,327) = 38.9, $p$ < .001). Social identity with the opinion-based group was a strong predictor, positively associated with acceptance of AI ($b$ = .34, $p$ < .001), while IWAH was associated negatively ($b$ = – .10, $p$ = .016). Moreover, emotional stability ($b$ = – .06, $p$ = .038) and GSE ($b$ = .02, $p$ = .019) were also positive predictors of a favourable approach towards AI. These results suggest that among diverse individual traits and intergroup contributors, social identity (identifying as an AI supporter) showed the strongest positive relation with users' approving attitudes towards AI.

## Study 2

The aim of this study was to further explore the relationship between different types of group identification and attitudes towards AI (social identity in opinion-based groups and identification with all humanity). We retained the same hypotheses as those formulated in Study 1. The novelty of the research consisted of the examination of whether AI systems described as having high controllability of mental states (intentions) would elicit higher levels of acceptance of AI compared to AI described as having low controllability (emotions). Furthermore, we predicted that participants with greater social identity in opinion-based groups would declare more accepting attitudes towards AI, particularly when interacting with AI systems described as having high controllability of mental state. Conversely, we expected that participants with greater identification with all humanity would declare less accepting attitudes towards AI, particularly when interacting with AI systems described as having low controllability of mental states. The study was pre-registered at OSF

[3] In both studies in hierarchical regression models the variables social identity in opinion based group and group identification with all humanity were tested for the groups of low and high identifiers, based on median split

https://osf.io/yrmx9/?view_only=514cf3ae42274f5ab91403833b26c78b The full dataset is available on OSF https://osf.io/b2kyc/?view_only=f94514a5c154440f80ad71be2b7b9c6d.

**Method**

A sample of 405 English-speaking participants was recruited through the Prolific research platform (56% women; $M_{age}$ = 30.6 years; *SD* = 9.73). We offered a small compensation for completing a brief online questionnaire ($1 US). We excluded participants based on predetermined criteria: failed control questions concerning project description and failed attention checks.

First, we asked participants to categorize themselves as AI development supporters or opponents. Then, we displayed a description of an AI-driven application, similar to ChatGPT that was designed to possess different mental states. In Study 2 we manipulated how controllable was the ability of the AI App: half of the respondents learned that the App was capable of having a human-like Intentions and the other half were learning that the App was able to have human-like Emotions. The mental state operationalization was incorporated from Cusimao and Goodwin's research (2019). The initial list of items with verbs describing having emotions (15 items) and intentions (11 items) has been evaluated by five competent judges in terms of clarity (is it understandable what the app can do) and realism (is it easy to imagine that the app could do that particular thing) a scale of 1-5. As a result, the final three items with the highest scores (3.6 and above) for each mental state have been selected. In the Emotion condition participants read that the App could (1) *feel happy when receiving a perfect score on the previous task, (2) feel sad when learning it needs to improve on the next try, and (3) feel anxious to finish the work in a quicker way than before*. In the Intention condition participants learned that the App could (1) *set a goal to receive a perfect score on the upcoming task, (2) on its own plan to improve on the next try, and (3) resolve to finish the*

*work in a quicker way than before*. Next, a short description of the group task was provided, in which all participants were to collaborate with other people and the application to promote the use of AI in everyday life[4]. Following this, we measured the level of AI Acceptance, and social identity in the opinion-based group: as a supporter (α = .85) or opponent (α = .79), and IWAH (α = .87) using the same scales as in Study 1. We also assessed ATI since it was the strongest correlate in Study 1.

**Results**

We hypothesized that AI supporters would be more accepting of AI. We also expected that people with higher levels of IWAH would be less accepting of AI. Moreover, we anticipated that the stronger the controllability of the simulated mental state the more positive the perception of AI. In addition, we predicted that the greater the group identification with AI supporters, the more favourable the attitude toward AI, but only for the App with intentions. Eventually, we hypothesized that the greater the group identification with humankind, the less favourable the attitude toward AI, but only for the App with emotions.

To test these predictions, we conducted a regression analysis presented in Table 1, that revealed that the higher the level of social identity with AI supporters the higher the level of Acceptance of AI ($b$ = .54, $p$ < .001). The same effect was found in the AI opponents group ($b$ = –.77, $p$ < .001). A positive association was also shown between IWAH and acceptance of AI ($b$ = .17, $p$ < .001). Afterwards, we ran a regression analysis that showed a

[4] Instruction of the group task in Study 2: "Now, imagine that one of your friends invites you to join a group project focused on advancing artificial intelligence (AI). In this group, you would work alongside other people but also cooperate with the App and similar AI applications to create content that promotes the benefits of integrating AI technology into everyday life. The content generated by this collective effort would serve to educate individuals and raise public awareness of the many benefits of using AI. Additionally, it would foster a community that brings together diverse entities, including the App and other AI applications, to support the continued progress of AI."

significant difference in the level of AI acceptance depending on the simulated mental state. As predicted, the experimental group with the Intention condition had a higher level of acceptance of AI compared to the Emotion condition ($b = .22$, $p < .01$).

Finally, we validated the interaction between social identity and mental states. As presented in Table 3, a regression analysis showed that in the group of high identifiers with AI supporters, attitudes towards AI were more accepting, particularly when interacting with the App described as having high controllability of mental states ($b = .25$, $p < .034$). Simultaneously, the main effect of the social identity in opinion-based group has been demonstrated. Those who identified stronger with AI supporters declared more accepting attitudes towards AI ($b = .44$, $p < .001$). However, no main effect of metal states has been observed. Participants who imagined the App as having intentions did not exhibit a higher level of acceptance of AI compared to when it was capable of simulating emotions ($b = .01$, $p< .885$). Additionally, a regression analysis showed no significant interaction effect between AI mental state and identification with all humanity ($b = .23$, $p < .118$). Both main effects for identification ($b = .08$, $p < .462$) and mental state ($b = .10$, $p < .385$) have not been valid.

A multiple regression analysis was conducted to examine individual and group predictors of acceptance of AI, including the interaction between identification with AI supporters and the controllability of AI mental state (emotion vs. intention). As illustrated in Table 4, Model 2 incorporating group factors significantly improved the fit compared to model 1 based on individual components ($R^2 = .24$, $\Delta R^2 = .17$, $F$ (3,366) = 8.15, $p < .001$). The more advanced model 3, confirming the significant interaction effect (social identity x AI controllability), refined data fit compared to model 2 ($R^2 = .25$, $\Delta R^2 = .01$, $F$ (1,362) = 4.22, $p$ <.041).

## General Discussion

The main purpose of the two reported studies was to examine psychological factors underlying attitudes toward AI acceptance. In particular, we examined how psychosocial components (group identification) may determine differences in positive attitudes toward advanced, interactive technology. Secondly, we investigated the role of perceived AI controllability (different mental states possessed by the App) in the acceptance of AI. Furthermore, we aimed to evaluate the possible interaction between AI controllability (mental states) and social attributes (group identification) on human reactions to AI. Our findings demonstrated that social identity is a substantial differentiating factor in discerning attitudes towards AI. Results were in line with the assumptions of Social Identity Theory, which posits that an individual's sense of self is derived from their group membership, leading to the adaptation of the group's norms, values, and behaviours. The degree to which individuals identify with AI opinion-based groups correlated strongly with people's attitudes toward AI. Studies confirmed that acceptance of AI was significantly stronger in a group of like-minded people with higher social identification. Contradicting our prediction, people who strongly considered themselves to be members of the global community (identification with all humanity) manifested substantially increased (not diminished) levels of AI endorsement. However, that result occurred only in Study 2. It is noteworthy that social identity in an opinion-based group remained the strongest predictor of acceptance of AI, showing higher contribution than individual factors like personality, age, gender, self-esteem or digital fluency.

The research showed that positive attitudes towards AI varied based on the perceived controllability of simulated mental state, which has not been extensively studied before. Consistent with the hypothesis, AI described as being able to express intentions (high

controllability) elicited higher levels of acceptance of AI than AI described as having emotions (low controllability). Moreover, results revealed that the effect of group affiliation on attitudes toward AI could differ depending on the types of mental states that a given application is capable of simulating. Notably, in a group of high identifiers with AI supporters, attitudes toward AI were more accepting, particularly when interacting with the App described as having high controllability of mental state (Intention), whereas, among the low identifiers group, positive attitudes were at a comparable level regardless of the mental state. The effect was not observed for group affiliation based on IWAH.

People are and will increasingly interact with AI, making it essential to explore how this affects human behaviour at both individual and group levels. Our findings support the Computers are Social Actors (CASA) paradigm (Reeves & Nass, 1996), which suggests that people engage socially with media, applying the same social heuristics they use in human interactions because computers evoke similar social attributes. Specifically, we establish that similar psychosocial mechanisms operate in interactions with AI as in human-to-human interactions. Our conclusions enhance the understanding of which social categories may be activated and in what contexts these interaction patterns can be replicated. Exposure to AI triggers group identification processes, shaping attitudes and behaviours related to AI—such as technology usage, fear of AI, support for AI funding, or collective action against its development. These observations confirm that studies focusing solely on individual perceptions and behaviours toward AI, without considering group membership, overlook a critical factor: group dynamics (see Smith et al., 2021).

In this exploratory study, we aimed to examine social identity from two perspectives: AI as an in-group member (within opinion-based groups) and AI as an out-group member (IWAH). The findings suggest that social identity is crucial for analysing modern challenges,

such as AI development (Monik & Parzuchowski, 2024). It not only polarizes society but also fosters strong group affiliations that provide a foundation for specific behaviours. The sense of belonging to a shared opinion-based group appears to be a key inclusive category, positioning AI entities like ChatGPT, as potential in-group members. This implies that such applications may be perceived not only as interaction partners but also as full-fledged members of the in-group. Accordingly, people may incorporate a wide range of in-group bias consequences when interacting with AI, leading to more inclusive behaviours and deeper integration of technology into social structure (see Deligianis et al., 2017).

Surprisingly, IWAH results showed an inverse relationship to our expectations. Specifically, a stronger sense of panhumanism was linked to more favourable attitudes toward technological advancement. Wang and Peng (2023) suggested that it may indicate that our sample had a high level of AI competence, though this seems unlikely given the group's diversity. Paradoxically, increased solidarity with humanity might have reduced perceived threats from AI. However, Study 1, conducted on students, found no significant differences in attitudes towards AI. Contrary to the findings of Wang and Peng (2023), frequent AI interactions and their normalization may prevent AI from being seen as an out-group or a threat to human distinctiveness (Cha et al., 2020). Further research is encouraged to explore this aspect in greater depth.

Previous studies (e.g., Mara et al., 2022; Mathur et al., 2020) have focused on the anthropomorphizing of humanoid robots, but attention should also be given to large language models (LLMs) and how their ability to simulate human cognitive and emotional states is perceived. Our study shows that AI becomes unsettling when perceived as having experiences (the ability to feel) rather than just agency (the ability to act) (e.g., Appel et al., 2020; Gray & Wegner, 2012). This aligns with the findings of Koban and Banks (2024), who

suggested that an AI's emotional capacity determines whether it is seen as a mindful agent. Emotional engagement by social robots can lead to expectancy violations and dehumanization (Haslam et al., 2008), resulting in more negative attitudes than AI which only displays cognitive abilities. Our insights confirm this pattern with non-humanoid AI, which is the most commonly encountered form of AI.

AI-human similarity affects attitudes more for high-identifiers when AI is perceived as part of the ingroup, though AI entities may be viewed as less prototypical ingroup members (Van Knippenberg, 2011). According to social identity theory (Turner & Tajfel, 1986), prototypical members have greater influence within their group (Hogg, 2001). Our results suggest that group effects may extend to human-robot interactions, though to a lesser extent than human-human relations (e.g., Fraune, 2020). According to another hypothesis, the potential source of such logic may be related to intragroup dynamics, where some division between AI and human members persists. Opinion-based groups focus on shared goals, often minimizing barriers to collaboration, but AI's uncontrollable and omnipotent nature could create perceived barriers, especially for individuals with stronger group identities invested in maintaining cohesion. Future research should explore this further. Conversely, when AI is viewed as an outgroup, AI-human similarity has less impact on attitudes among high-identifiers. Since AI interaction does not deepen intergroup divisions, people may not feel threatened by AI. Non-humanoid, non-material AI may not be seen as a real threat, making control concerns secondary. This aligns with the findings of Wang and Peng (2023) who emphasized the role of perceived anthropomorphism and perceived proximity as essential prerequisites for AI to be considered an outgroup of humans.

**Limitations and future directions**

The current paper has several limitations. First, both studies relied on self-reported judgments; replicating the research using interactions with an actual AI application would be beneficial. Second, Study 2 examined only two mental states out of the many that AI can simulate (e.g., imagination, morality, personality); testing a wider range could reveal more about group mechanisms and subtle differences. Third, strengthening group identity activation in the experiment could validate the hypotheses across different contexts, particularly by framing AI as either an ingroup or outgroup member. Finally, we did not directly measure perceived threat of AI, which would have further explored our hypotheses.

Research on human-AI intergroup relations is still in its early stages. The exploratory studies we have presented here show that general patterns of human-human interaction may, to some extent, apply to human-AI contacts. However, individual characteristics of AI—like its similarity to humans or perceived controllability—seem to play a moderating role in the processes. As social psychologists, we are called upon to provide essential expertise and conduct research aimed at reducing prejudices toward AI entities and facilitating their successful integration into society. The field specializing in group identity seems particularly noteworthy in this context.

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**Table 1**

*Regression indices for group identification factors predicting Acceptance of AI*

| Predictor | Study 1 | | | | Study 2 | | | |
|---|---|---|---|---|---|---|---|---|
| | *b* | *b* 95% CI [LL, UL] | *beta* | *beta* 95% CI [LL, UL] | *b* | *b* 95% CI [LL, UL] | *beta* | *beta* 95% CI [LL, UL] |
| Identification with opinion-based group of AI supporters | .38** | [.31, .45] | .50** | [.41, .60] | .54** | [.46, -.63] | .56** | [.47, .64] |
| Identification with all the humanity | -.03 | [-.12, .07] | -.03 | [-.14, .08] | .17** | [.08, .27] | .18** | [.08, .28] |

*Note. b* represents unstandardized regression weights. *beta* indicates the standardized regression weights. *LL* and *UL* indicate the lower and upper limits of a confidence interval, respectively.
*$p < .05$. **$p < .01$.

**Table 2**

*Regression indices for individual factors (model 1) and social factors (model 2) predicting Acceptance of AI*

| Predictor | *b* | *b* 95% CI [LL, UL] | *beta* | *b* 95% CI [LL, UL] | Fit | Difference |
|---|---|---|---|---|---|---|
| (Intercept) | 2.01** | [1.45, 2.58] | | | | |
| Gender | .22** | [.06, .39] | .36** | [.10, .62] | | |
| Age | -.01 | [-.02, .00] | -.09 | [-.20, .02] | | |
| Extraversion | -.01 | [-.07, .04] | -.03 | [-.14, .09] | | |
| Agreeableness | .04 | [-.03, .11] | .06 | [-.05, .18] | | |
| Conscientiousness | .03 | [-.04, .09] | .05 | [-.07, .17] | | |
| Emotional stability | -.06 | [-.12, .00] | -.12 | [-.25, .01] | | |
| Openness to experience | .03 | [-.04, .11] | .05 | [-.07, .17] | | |
| ATI | .16** | [.08, .24] | .23** | [.12, .34] | | |
| GSE | .02* | [.01, .04] | .18* | [.05, .31] | | |
| RSE | -.00 | [-.02, .01] | -.02 | [-.02, .12] | | |
| | | | | | *Model 1:* $R^2$ = .145** | |
| (Intercept) | 1.84** | [1.30, 2.39] | | | | |
| Gender | .19* | [.05, .31] | .31* | [.07, .55] | | |
| Age | .00 | [-.01, .01] | -.04 | [-.13, .06] | | |
| Extraversion | -.01 | [-.06, .03] | -.03 | [-.13, .07] | | |
| Agreeableness | .03 | [-.02, .10] | .05 | [-.05, .16] | | |
| Conscientiousness | .01 | [-.04, .07] | .02 | [-.08, .13] | | |
| Emotional stability | -.06* | [-.11, -.01] | -.12* | [-.24, .07] | | |
| Openness to experience | .03 | [-.04, .10] | .05 | [-.06, .15] | | |
| ATI | .07 | [.01, .14] | .10 | [.00, .21] | | |
| GSE | .02* | [.00, .03] | .14* | [.02, .26] | | |
| RSE | -.01 | [-.02, .01] | -.06 | [-.18, .07] | | |
| Identification with humanity | -.10* | [-.19, -.02] | -.12* | [-.22, -.02] | | |
| Identification with opinion-based | .34** | [.26, .41] | .44** | [.34, .55] | | |

| | | | | | |
|---|---|---|---|---|---|
| | group | | | *Model 2:* $R^2$ = .314** | $\Delta R^2$ = .169** |

*Note. b* represents unstandardized regression weights. *beta* indicates the standardized regression weights. *LL* and *UL* indicate the lower and upper limits of a confidence interval, respectively.
*$p < .05$. **$p < .01$.

**Table 3**

*Regression indices for interaction between group identification and metal states predicting Acceptance of AI in Study 2*

| | *b* | *b* 95% CI [LL, UL] | *beta* | *beta* 95% CI [LL, UL] |
|---|---|---|---|---|
| Identification with opinion-based group of AI supporters | .44** | [.27, .61] | .35* | [.21, .48] |
| AI mental state (intention) | .01 | [-.14, .16] | .19 | [.01, .37] |
| Identification with opinion-based group of AI supporters x AI mental state | .25* | [.02, .48] | .20 | [.01, .38] |
| Identification with humanity | .08 | [-.13, .28] | .05 | [-.09, .19] |
| AI mental state (intention) | .10 | [-.12, .30] | .29 | [.09, .48] |
| Identification with humanity x AI mental state | .23 | [-.06, .52] | .15 | [-.04, .35] |

*Note. b* represents unstandardized regression weights. *beta* indicates the standardized regression weights. *LL* and *UL* indicate the lower and upper limits of a confidence interval, respectively.
*$p < .05$. **$p < .01$.

**Table 4**

*Regression indices for individual factors (model 1), social factors (model 2) and the interaction between experimental manipulation and opinion-based social identity (model 3) predicting Acceptance of AI*

| Predictor | *b* | *b* 95% CI [LL, UL] | *beta* | *b* 95% CI [LL, UL] | Fit | Difference |
|---|---|---|---|---|---|---|
| (Intercept) | 3.04** | [2.61, 3.46] | | | | |
| Gender | .12 | [-.01, .24] | .18 | [-.02, .38] | | |
| Age | .00 | [-.01, .01] | .02 | [-.08, .12] | | |
| Affinity for technology | .20** | [.12, .28] | .24** | [.14, .34] | | |
| | | | | | $R^2$ = .006 | |
| (Intercept) | 3.20** | [2.79, 3.60] | | | | |
| Gender | .04 | [-.08, .16] | .07 | [-.12, .26] | | |
| Age | .00 | [-.00, .01] | .05 | [-.05, .14] | | |
| Affinity for technology | .09* | [.01, .17] | .11* | [.01, .20] | | |
| Identifiers with humanity | .02 | [-.10, .14] | .01 | [-.08, .11] | | |
| Identifiers with AI supporters group | .53** | [.40, .65] | .41** | [.32, .51] | | |
| AI mental state (intention) | .13* | [.02, .25] | .21* | [.02, .39] | | |
| | | | | | $R^2$ = .236** | $\Delta R^2$ = .173** |
| (Intercept) | 3.25** | [2.85, 3.66] | | | | |
| Gender | .04 | [-.08, .16] | .06 | [-.13, .25] | | |
| Age | .00 | [-.00, .01] | .05 | [-.04, .14] | | |
| Affinity for technology | .08* | [.01, .16] | .10* | [.01, .20] | | |
| Identifiers with humanity | .01 | [-.12, .13] | .00 | [-.09, .10] | | |
| Identifiers with AI supporters group | .40** | [.22, .57] | .31** | [.18, .45] | | |
| AI mental state (intention) | .03 | [-.12, .18] | .21 | [.03, .40] | | |
| Identifiers with AI supporters group * AI | .24* | [.01, .48] | .19* | [.01, .37] | | |

| | | | | | | |
|---|---|---|---|---|---|---|
| mental state (intention) | | | | | | |
| | | | | | $R^2$ = .245** | $\Delta R^2$ = .009* |

*Note. b* represents unstandardized regression weights. *beta* indicates the standardized regression weights. *LL* and *UL* indicate the lower and upper limits of a confidence interval, respectively.
*$p$ < .05. **$p$ < .01.