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ABSTRACT

Among the many factors that influence retirement adjustment, there is increasing recognition of the role played by people's social relationships. In particular, research points to the benefits that joining new groups can have for people's well-being when they experience life change. In three studies, we extend this research to assess the contribution that new groups and identities make to supporting the well-being and adjustment of people transitioning to retirement. Study 1, involving 302 retirees, demonstrates that joining new groups in retirement and developing a stronger sense of identification with retirees predicts life satisfaction after controlling for known predictors (e.g., financial planning, marital status, physical health status, retirement aspirations), while only retiree identification predicts adjustment. We then examine the extent to which multiple group memberships support retirement adjustment and well-being through the mediating role of new group memberships and retiree identification. This is first examined in a cross-sectional study of 90 retired academics (Study 2) and then in a two-wave study involving a general sample of 121 recent retirees (Study 3). Findings from both studies point to the importance of social group and identity gain in retirement adjustment and highlight the particular importance of retiree identification in the transition.

Many factors influence successful ageing in retirement, and researchers are increasingly recognizing how important adjustment to this major life transition is for health and well-being. Indeed, up to 20% of people do not adjust well to retirement (e.g., Pinquart & Schindler, 2007; Szinovacz, 2003) and this increases their vulnerability to health-related problems over the course of this transition (Hunter, Wang, & Worsley, 2007; Wang & Shi, 2014). Here, however, social relationships appear to play a protective role, both as we age and as we experience life change, and there is growing evidence that our relationships with other people in *social groups* (e.g., with family, friendship, community, and interest groups) may be especially important in this regard (e.g., Glei et al., 2005; Haslam et al., 2018; Jetten, Haslam, & Haslam, 2012).

Speaking to these issues, the *Social Identity Model of Identity Change* (SIMIC) specifies the various social group processes that support health and well-being in periods of life change. In-line with one of this model's core principles, previous research has highlighted the importance of social group memberships and associated *social identity capital* for retirement adjustment (Steffens, Cruwys, Haslam, Jetten, & Haslam, 2016a; Steffens, Jetten, Haslam, Cruwys, & Haslam, 2016b). The present research extends this work by examining the particular role that development of new group memberships in retirement, and of a strong sense of identification with retirees, play

in adjustment. More specifically, it examines the extent to which these two factors support adjustment over and above established predictors (Study 1) and function as a mechanism to facilitate successful adjustment and well-being in retirement (Studies 2 and 3).

Factors influencing retirement adjustment

Reflecting the diversity in people's experience, there is considerable variability in the way that retirement is defined. For some people, retirement involves leaving work altogether. For others, it might involve stopping work in one's primary profession while continuing to engage in part-time work (either in a similar or different capacity to one's primary profession) or returning to work of some form later in retirement. Given these diverse experiences, studies typically define retirement as a life transition that primarily involves formally stopping work in one's primary career, but which might also involve engaging in some alternative form of work. This is the definition that informs the present research.

This transition involves a range of changes that affect retirees' vocational identity, financial standing, daily activities and routines, and social relationships (e.g., Schlossberg, 2004; van Solinge & Henkens, 2008). Each of these impact on well-being in retirement and a person's capacity to adjust to the transition.

This is demonstrated in studies that assess retirees' life satisfaction (e.g., Pinquart & Schindler, 2007), well-being (e.g., Kubicek, Korunka, Raymo, & Hoonakker, 2011), happiness (e.g., Calvo, Haverstick, & Sass, 2009), self-esteem (e.g., Reitzes, Mutran, & Fernandez, 1996) and overall perceptions of adjustment (e.g., Donaldson, Earl, & Muratore, 2010). Unsurprisingly, given that retirement is also intertwined with ageing (e.g., Feldman & Beehr, 2011), similar constructs have also been identified as indicators of successful ageing in general (e.g., Bowling, 2007).

In this context, numerous theories have been developed to account for retirement adjustment (e.g., Stage, Life Course and Resource-based theories; see Wang, Henkens, & van Solinge, 2011, for a discussion). However, two – Role Theory and Continuity Theory – are especially relevant to the present investigation which focuses on the particular importance of social relationships and their contribution to a person's self-definition in periods of life change.

Role Theory was originally developed to account for the impact of life transitions in general (Linton, 1936) and has since been applied specifically to the retirement context. It argues that retirement results in loss of a person's work role and that this tends to have negative consequences when that role is integral to their self-definition. However, it suggests that such consequences are not inevitable where other roles assume greater importance (e.g., as grandparent or friend) in the transition. Accordingly, the impact of retirement on well-being is seen to depend on how central the work role is to a person's motivations, values and goals relative to their other roles (e.g., Barnes-Farrell, 2003).

Extending these ideas, *Continuity Theory* (Atchley, 1971) also recognises the importance of an individual's work role to retirement adjustment where it provides an important source of continuity after a person has retired. However, the theory also suggests that loss of such a role need not compromise well-being providing that a person has other meaningful existing social and leisure roles (e.g., as grandparent or a golfer) to fall back on in retirement. Where there is continuity in such roles in transitioning to retirement, then there is predicted to be greater adjustment (Atchley, 1999; Reitzes et al., 1996), but where there is discontinuity adjustment is expected to be compromised. Atchley (1989) also applied this theorizing to normal ageing arguing that continuity functions as an adaptive strategy for people facing new situations and contexts. Here, continuity extends beyond roles to include past skills, behaviours, and other experiences (e.g., with people in different situations and environments), which are seen to be important in providing people with a sense of personal continuity when they experience change as a result of ageing.

Research applying these and other theories to the retirement transition has identified a number of consistent predictors of adjustment. These include *objective and subjective health* (Dorfman, 1992; Gall, Evans, & Howard, 1997; Kim & Moen, 2002; Kubicek et al., 2011; van Solinge & Henkens, 2008), *finances* (Dorfman, 1992; Kim & Moen, 2002; Szinovacz, Martin, & Davey, 2014; van Solinge & Henkens, 2008), *preparation and planning* (in health, finances, and leisure activity; Gubler & Pierce, 2014; Reitzes & Mutran, 2004; Taylor-Carter, Cook, & Weinberg, 1997; Wang & Shultz, 2010), *voluntary work* (Dorfman & Douglas, 2005; Kim & Feldman, 2000), *retirement conditions and expectations*

(i.e., voluntariness of retirement, hopes and fears about health, finances, activities, and life quality; e.g., Braithwaite, Gibson, & Bosly-Craft, 1986; Fry, 2000; McGoldrick & Cooper, 1994; Nguyen, Tirrito, & Barkley, 2014; Taylor, Goldberg, Shore, & Lipka, 2008; Virshup & Coombs, 1993) and *social ties* (Hong & Duff, 1997; Kupperbusch, Levenson, & Ebling, 2003; Moen, Kim, & Hofmeister, 2001; Myers & Booth, 1996; Reitzes & Mutran, 2004).

In the case of social ties, which are the focus of the present paper, previous research has tended to emphasize the importance of individual relationships with one or more significant others – typically a spouse or partner, children, friends, and neighbours. However, the evidence here is mixed. There is some suggestion, for example, that being in a marital partnership can enhance adjustment, primarily where relationships are supportive and of high quality (e.g., Kim & Moen, 2001; Price & Joo, 2005; Taylor et al., 2008; Wong & Earl, 2009). Yet, other studies either do not find the effect (Dorfman, 1995; Kim & Feldman, 2000; Pinquart & Schindler, 2007; Price & Joo, 2005) or find gender differences in experiences of adjustment between marital partners. Along these lines, several studies report that men experience a longer "honeymoon" phase as they move into retirement, as evidenced by higher morale and life satisfaction (Kim & Moen, 2002) as well as reduced depressive symptoms (Szinovacz & Davey, 2004). There are also gender differences in the impact of spousal retirement status on adjustment, with evidence indicating that this impacts more on men than women (Kim & Moen, 2002) – particularly where this undermines engagement in joint activities post-retirement (Szinovacz & Davey, 2004). As these data suggest, a range of social-contextual factors impact on the way that men and women adjust to retirement.

However, while these relationships are certainly important, they do not address the contribution of retirees' other social relationships – particularly with social groups that they value (e.g., family, collegial, friendship, faith-based, leisure, and community groups). Excluding these from analysis potentially limits understanding both of the nature of social change in the retirement transition and of our capacity to manage it effectively.

Social groups, social identity and retirement adjustment

It was in the work of Michinov, Hesketh and their colleagues (Hesketh, Griffin, Dawis, & Bayl-Smith, 2015; Michinov, Fouquereau, & Fernandez, 2008) together with that of Feldman and Beehr (2011) that the potential applicability of social group memberships and associated social identities (as distinct from personal identity) were recognized as playing a role in the retirement adjustment process. These researchers drew attention to the possibility that the retirement transition may not be shaped by all social connections equally, but rather might be particularly affected by a person's relationships with the social groups that are central to their self-concept.

Elaborating on this point, Michinov et al. (2008) pointed to the particular importance of a person's social identity as a retiree for their post-retirement adjustment. Although this identity is one that is not always directly associated with a particular group membership (e.g., a retiree group), these

researchers examined its structure to determine whether this comprised the three components understood by Tajfel (1972) as necessary for the identity to function as a meaningful part of a person's self-concept. The first component was cognitive and assessed people's awareness of the category of retirees and their willingness to self-categorize as a retiree (as indexed by statements such as, "I identify with retirees"). The second component was evaluative and tapped into the perceived value of the retiree identity as a basis for positive self-esteem (as indexed by statements such as "I would rather not say that I belong to the category of retirees", reverse scored). A final component was affective and gauged people's commitment to the group of retirees (as indexed by statements such as "I dislike being a member of the retirees category", reverse scored). Michinov et al. (2008) investigated these dimensions in a survey study of 154 retirees using exploratory factor analysis. Supporting their suggestion that the category of retiree could provide a meaningful basis for social identity-based self definition, findings indicated (a) that there were indeed distinct cognitive and affective dimensions to the retiree identity and (b) that the more the people identified with other retirees, the better their life satisfaction in the transition to retirement.

Michinov et al.'s work shows that the retiree identity is one that has a psychological reality for people undergoing the transition to retirement and that it can function as a psychological resource in this period of significant life change. Feldman and Beehr (2011) built on this insight by incorporating aspects of the social identity framework (alongside numerous other theories) to develop a three-stage model of retirement decision-making. In this model, social identity is seen to be particularly influential in the first stage, or lead up to retirement, when a person engages with the possibility that they will give up work. Drawing primarily on the research of Gaillard and Desmette (2008; see also Gaillard & Desmette, 2008) into age-related social identities, the authors argued and showed that having a positive image of retirees in the lead up to retirement provided a basis for the motivation both to retire and to connect with other retirees. In this way, the research provided further evidence of the important role that gaining a positive sense of identification with retirees can play in shaping adjustment outcomes.

Finally, Hesketh and colleagues went yet further by considering the importance of wider group-based identifications (e.g., as older worker, volunteer, as a member of the Taylor family, not just that as a retiree) for retirement and argued that this broader conceptualization of social identity should be included in models of retirement adjustment (Hesketh et al., 2015). In particular, their *Retirement Transition Adjustment Framework* (RTAF) proposed that identification with social groups helps to enhance a person's self-efficacy and to shape their behaviour in ways that support successful adjustment.

These various lines of research all recognize that social groups, and people's sense of belonging with them, play an important role in retirement adjustment and well-being. This accords with a central tenet of the Social Identity Approach – namely that humans are fundamentally social animals who derive a large part of their sense of self from their interaction with others in social groups (Tajfel & Turner, 1979; Turner, Hogg, Oakes, Reicher, & Wetherell, 1987; Turner, Oakes, Haslam, & McGarty, 1994). Where groups are integral to our lives and become an important part of who we are (e.g., as a member of the Taylor family, as a teacher, as an Australian), they have the power to influence the way we think, feel and behave. Moreover, where our sense of belonging to groups is strong – that is, when we identify and *self-categorize* in terms of particular group memberships (as "us Taylors", "us teachers", "us Australians") – they provide important psychological resources from which we can gain support and strength. This is particularly important under conditions of challenge and adversity that include coming to terms with major life changes. Under these conditions, social group memberships can act as a psychological resource – primarily in enhancing belonging, access to social support, meaning, self-esteem, and perceived control – but only if they are psychologically important and internalized into the self as part of a person's social identity (Greenaway, Cruwys, Haslam, & Jetten, 2015; Jetten et al., 2015; for a review see Haslam et al., 2018).

Yet while the RTAF and the three-stage retirement decision-making model both acknowledge the importance of social group memberships and underlying social identities, these processes are spelled out in greater detail in the *Social Identity Model of Identity Change* (SIMIC; Haslam et al., 2008; Jetten, Haslam, Iyer, & Haslam, 2009). The distinctive contribution of this model is to recognize that all life transitions involve a process of social identity change and that group-based processes play a key role in helping people navigate the uncertainties and instability that these changes create. In the retirement context, for example, this might involve a shift from self-categorizing as an employee and identifying with other workers in one's organization and profession, to identifying as a retiree or with groups unrelated to work (e.g., as a member of a volunteer group or book club). SIMIC suggests that, providing they are compatible with each other, multiple social group memberships are a particularly important protective factor in such life transitions. This is because the more important group memberships a person has, the more resources (e.g., social, emotional, and financial support) they can draw upon when adjusting to change (Haslam et al., 2008; Praharso, Tear, & Cruwys, 2017; Seymour-Smith, Cruwys, Haslam, & Brodribb, 2017).

SIMIC specifies two pathways through which multiple group memberships can facilitate adjustment to the life changes of the form brought about by retirement. First, being a member of multiple groups provides a scaffold from which to develop new social identities (e.g., with other retirees or community groups), allowing people to extend their resource base and draw on it for protection during the retirement transition. This is reflected in SIMIC's *social identity gain* pathway. Here, it is argued that a person's existing social group memberships create opportunities to join new groups (e.g., voluntary, community, exercise, or other groups) thereby serving as a vehicle to develop meaningful new social identities. Second, multiple group memberships reduce the impact of social identity loss when undergoing life change. This is specified in SIMIC's *social identity continuity* pathway. In the context of retiring, a person might lose valued group memberships and associated identities as members of workgroups, but

if they are able to maintain some of their other pre-retirement groups (e.g., with family or interest groups), this ensures that there is a basis for staying socially connected in the face of that loss. This pathway also speaks to the importance of a sense of self-continuity for retirement, as highlighted in Atchley's (1971) Continuity Theory. However, SIMIC extends on this by emphasizing the particular role that continuity of the *social* self plays in successful adjustment.

Initial support for SIMIC in the retirement context was provided by Steffens et al. (2016a) in a study that used archival data from the English Longitudinal Study of Ageing to track the health and well-being of 424 English employees, aged 50 and over, in the 6-year period following retirement. The study found that retirees who were members of more social groups (indicated by ticking a checklist of different possible clubs, organizations, or societies to which they belonged) had a higher quality of life and reduced mortality, but only if they were also members of multiple social groups following formal retirement. In the case of mortality, it was found that people who belonged to two groups before retirement and maintained them post-retirement had a 2% risk of mortality in the 6 years after retirement. This risk increased to 5% if retirees lost one social group and it increased further to 12% if they lost both. Importantly, these effects were large and equivalent in size to those associated with changes in physical activity.

In another study, Steffens and colleagues (2016b) examined *why* multiple group memberships supported adjustment to retirement. Drawing on previous work on social identity and social support (Haslam, O'Brien, Jetten, Vormedal, & Penna, 2005; Haslam, Reicher, & Levine, 2012), they reasoned that multiple group memberships provided the basis for accessing various forms of social support known to be important in protecting health and well-being. This mediating role was examined in a study of 171 recently retired Australians that explored both the support that people received from others and the support they provided to others. Consistent with previous research, belonging to multiple groups after retirement predicted perceived health, well-being, and adjustment outcomes. And while received and provided social support were correlated, it was *provided* social support that mediated the relationship between group memberships and successful adjustment. In this way, it appeared that multiple group memberships enhanced retirement adjustment because they afforded opportunities for retirees to continue to make a contribution to the lives of other people after stopping work.

Together, these studies support SIMIC's predictions about the importance of social group and identity processes – in particular, the role of multiple group memberships – for the retirement transition. However, in these studies, it is likely that multiple group memberships comprised those that were both retained and gained, making it difficult to ascertain the particular contribution of each of SIMIC's pathways. With a view to providing greater analytic specificity, the purpose of the present paper is to interrogate the particular contribution of SIMIC's identity gain pathway to retirement. More specifically, we consider the contribution of memberships with new groups in general (as suggested by the work of Hesketh et al., 2015) and the retiree identity in particular (as suggested by the work of Michinov et al., 2008) to successful adjustment.

The present research

As the foregoing review indicates, previous research suggests that social groups, and the social identities that people derive from them, can have particular value as a psychological resource in supporting successful ageing in retirement (Haslam et al., 2018; Haslam, Jetten, Postmes, & Haslam, 2009; Jetten et al., 2012). Nevertheless, this research has several limitations that the present paper addresses. First, we have a limited understanding of the extent to which new group memberships more generally, and identification with other retirees in particular, contributes to retirement adjustment and life satisfaction (over and above established predictors). We examine this issue in Study 1, in a cross-sectional survey with Australian and New Zealand retirees. In-line with social identity theorizing – in particular as developed within SIMIC – we hypothesize that:

H1. New group memberships and identification with retirees will contribute to the prediction of adjustment and life satisfaction, and will do so over and above established predictors (e.g., health, finances, marital relationships).

Second, while SIMIC highlights the importance of the social identity gain pathway in supporting outcomes in response to life change, it has yet to be tested systematically in the retirement context. This is the aim of Studies 2 and 3, in which we explore the role of new group memberships and retiree identification as specific mechanisms through which multiple groups support adjustment and well-being. Study 2 uses a cross-sectional survey to test the identity gain pathway in a group of retired academics. Study 3 uses a two-wave design to extend these findings and provide an initial test of directionality in SIMIC's identity gain pathway. In-line with this model, in these studies, we hypothesize that:

H2. Multiple group memberships will provide the basis from which to develop (a) new group memberships and (b) identification with retirees in particular.

H3. New group memberships will mediate the relationship between multiple group memberships and (a) well-being and (b) retirement adjustment.

H4. Retiree identification will mediate the relationship between multiple group membership and (a) well-being and (b) retirement adjustment.

Study 1

This study examined the contribution that new social group memberships and identities, developed over the course of retirement, makes to adjustment and life satisfaction. It also examined the power of established predictors – notably, personal factors (e.g., financial, health, marital status), retirement factors (e.g., retirement aspirations, planning), work activity (voluntary work, bridge employment) and other life changes (e.g., illness, relocation, financial setbacks). In this, it serves to

test H1: that new group memberships in general, and identification with retirees in particular, will predict retirement adjustment and life satisfaction (as an index of well-being) over and above established predictors.

Method

Participants
Participants were recruited through 51 organizations in Australia and New Zealand that include retirees in their membership (e.g., Australian Men's Shed Association, Ageing Mind Initiative, Queensland Retired Teachers Union). An advertisement about the study was circulated through articles in monthly magazines, websites, social media, e-mail and e-newsletters. Using this recruitment strategy, 485 people initially accessed the survey, and 302 (62.3%) who described themselves as "retired", completed the survey, and were included in analysis. This completion rate is comparable to that of similar online studies (e.g., Galesic, 2006).

The sample comprised 210 men and 88 women (four undeclared). The mean age of the sample was 67.12 years (SD = 7.61) and mean retirement age was 58.06 years (SD = 10.26), which is consistent with general population statistics on Australian retirees (Australian Bureau of Statistics, 2017). Participants had previously been employed in various white- and blue-collar occupations (e.g., as engineers, teachers, postal workers, public transport drivers, physicians, nurses, tradespeople, cleaners), with 42.7% indicating that they had completed a university degree. Over half of the participants (68.9%) had been employed for longer than 10 years in their last place of employment. The majority resided in Australia (96%), identified as White/Caucasian with English as their primary language, and lived independently (83.8%) in a single dwelling.

Measures

Personal factors
In addition to standard demographic indices of age, gender and years of education, we also measured marital and financial status, perceived physical health, and other life changes.

Marital status. Participants reported their relationship status as either married or in a domestic partnership (74.8%), in a relationship but not cohabiting (1.7%), widowed (8.3%), divorced (6.0%), separated (2.0%), single or never married (5.6%) or other (1.3%). These responses were then binary coded (married or in a domestic partnership = 1, other = 0).

Financial status. Four items indexed financial status (e.g., "I have _____ financial support from my personal savings."; adapted from Leung & Earl, 2012) and responses were made on 5-point scales (1 = very little, 5 = excess). Each item addressed different classes of assets: superannuation, investments, savings and income (α = .74).

Physical health. This was assessed using a single item, "How would you rate your overall physical health?", to which participants responded using a 5-point scale (1 = poor, 5 = excellent). Previous research indicates that there is a strong correlation between responses on this measure and objective assessment of a person's physical symptoms of illness (r = .66; DeSalvo et al., 2006).

Other life changes. This was included to take into account possible effects of experiencing significant life events other than retirement. Participants were provided with a list and asked to tick as many of the following that were relevant: illness (46.7%), death of someone important to them (43.7%), relocation (35.6%), financial setback (25.9%) or other life changes (20.7%). The total number of life changes selected were summed. Apart from retirement, 10.6% of participants indicated that they had experienced no other life change since retirement, 54.8% experienced one, 24.1% experienced two, and the remainder (10.5%) had experienced three or more.

Retirement factors

Retirement duration
Participants indicated the number of years they had been retired.

Retirement voluntariness
This comprised three statements: "I wanted to retire", "I wanted to do other things", and "I was pressured to retire" (reverse scored), to which participants responded using a 3-point scale (1 = does not apply at all, 3 = applies strongly). These items were averaged (α = .64), with higher scores indicating a greater sense that retirement was voluntary.

Retirement planning
This was measured using 10-items from Muratore and Earl (2010) Retirement Planning Questionnaire. Responses were subjected to factor analysis which revealed two independent factors that were entered separately in analysis. The first factor comprised four items assessing the extent to which participants engaged in financial planning (α = .80; e.g., "Making savings or investments to support retirement"). The second factor comprised six items assessing engagement in health and leisure planning (α = .82; e.g., "Planning how to maintain a healthy lifestyle" and, "Attending sessions on leisure planning"). All items were rated on 5-point scales (1 = very small amount of effort, 5 = very large amount of effort).

Retirement expectations
This was measured using two scales indexing positive and negative experiences in retirement. The eight-item Retirement Hopes scale was taken from the US Health and Retirement Survey (α = .73; Juster & Suzman, 1995). Participants were asked to indicate how much they experienced a particular opportunity (e.g., "Having the chance to travel"). The six-item Retirement fears scale, taken from the same survey, indexed things that people worry about in retirement (α = .78; e.g., "Not doing anything productive or useful"). Responses were made on 5-point scales (1 = not at all, 5 = a lot).

Activities

This measure assessed two activities that have been identified previously as important predictors of adjustment.

Voluntary work

Participants were asked whether they were currently engaged in voluntary work (yes = 1, no = 0), with 63% of respondents indicating that they did.

Bridge employment

This was defined as being in receipt of any paid employment after formal retirement (yes = 1, no = 0), with 16% of participants in the sample reporting engagement in such work.

Social identification

Two measures indexed respondents' membership and identification with new social groups that they had joined over the course of their retirement. All items were rated on 5-point scales (1 = do not agree at all, 5 = agree completely).

New group memberships

This 4-item scale (α = .93, e.g., "Since retirement, I have developed strong ties with one or more new groups"; following Haslam et al., 2008) measured people's strength of connectedness to new social groups in general after retirement.

Retiree identification

Four items assessed the extent to which respondents identified as a retiree (α = .85, e.g., "I see myself as a retiree", "I identity with other retirees"; following Doosje, Ellemers, & Spears, 1995).

Retirement outcomes

Two outcome measures were used.

Life satisfaction

This was measured using the five-item Satisfaction with Life Scale (SWLS; Diener, Emmons, Larsen, & Griffin, 1985; α = .87). Items (e.g., "I am satisfied with life) were rated on a 7-point scale (1 = do not agree at all, 7 = agree completely).

Retirement adjustment

This measure was taken from the Healthy Retirement Project (DeSalvo et al., 2006). It comprised 12 items to which people responded using a 5-point scale (1 = do not agree at all, 5 = agree completely). As items were modified for the purpose of this study, factor analysis was used and revealed three distinct constructs. The first tapped respondents' general experience of retirement (α = .82, e.g., "I enjoy being retired", "Retirement has been better than I expected"), the second indexed adjustment to ceasing work (α = .82, e.g., "I miss being part of an exciting workplace", "I miss the discipline that working gave me"), and the third assessed financial adjustment (α = .69, e.g., "I have had to adjust a big drop in income", "I have real concerns about my financial situation"). Only the general

retirement adjustment factor was included in the analysis because financial and work-related factors were designated as predictor (not outcome) variables in our analysis and were already captured by other measures.

Procedure

Approval for all studies was obtained from the ethical review committees at the authors' universities. In-line with our definition of retirement, participants were people who had formally stopped work in their primary career, but might still be engaged in some part-time employment (as indicated in participant demographics). On completion of the online survey, participants were debriefed and offered entry into a prize draw (i.e., a shopping voucher worth AUD $50) to thank them for taking part.

Results

Means, standard deviations and zero-order correlations between established predictors and measures of social identification, life satisfaction and adjustment are presented in Table 1. These revealed significant and moderate inter-correlations between the two outcomes measures and small-to-moderate correlations between these and the predictor variables. New group memberships and retiree identification were significantly associated with both outcomes, alongside established retirement predictors (i.e., financial status and planning, physical health, health and leisure planning, retirement expectations, voluntary and bridge employment).

Main analysis

Two separate hierarchical multiple regression analyses were conducted to test whether new group memberships and retiree identification contributed to retirement outcomes after controlling for established factors (personal factors, retirement factors and activities). These factors were entered in Step 1 for each dependent variable followed by entry of the two group identification measures in Step 2.

The regression models are summarized in Table 2. In the case of life satisfaction, the two social identity constructs made a significant additional contribution to explaining variance in this outcome beyond established factors and other life changes, $\Delta R^2 = 0.05$, $F(2, 240) = 10.05$, $p < .001$. Moreover, at Step 2, new group memberships ($\beta = .15$, $p = .011$) and retiree identification ($\beta = .18$, $p = .003$) were each significant separate contributors to life satisfaction even after controlling for financial status ($\beta = .17$, $p = .007$), health status ($\beta = .26$, $p < .001$), and retirement fears ($\beta = -.14$, $p = .021$). All other established factors were not associated with life satisfaction.

Similarly, the social identity constructs explained additional variance in retirement adjustment, after controlling for established factors, $\Delta R^2 = 0.08$, $F(2, 240) = 17.51$, $p < .001$. Retiree identification ($\beta = 0.28$, $p < .001$) positively and significantly contributed to retirement adjustment, while the effect of new group memberships was only marginal ($\beta = .10$, $p = .068$). Of the established factors, retirement fears ($\beta = -.36$, $p < .001$), retirement hopes ($\beta = .13$, $p = .02$), and health and leisure planning ($\beta = .12$, $p = .04$) were the only other significant

Table 1. Study 1: Means, standard deviations, and bivariate correlations among variables.

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
1. Age	-																		
2. Gender	0.14*	-																	
3. Education	-0.04	-0.09	-																
4. Marital Status	-0.04	0.32***	0.05	-															
5. Financial Status	0.01	0.03	0.19**	0.25***	-														
6. Physical Health	0.01	-0.14*	0.10	0.08	0.18***	-													
7. Other Life Changes	0.02	-0.05	-0.10	-0.15*	-0.24***	-0.25***	-												
8. Retirement Duration	0.19**	0.03	-0.06	-0.12*	-0.04	-0.02	0.25***	-											
9. Retirement Voluntariness	0.02	-0.03	0.06	0.12*	0.26***	0.22	-0.10	0.02	-										
10. Financial Planning	-0.04	0.02	0.12*	0.25***	0.39***	0.10	-0.11	0.01	0.24***	-									
11. Health and Leisure Planning	0.05	-0.12*	0.01	0.04	0.22***	0.21***	-0.16**	-0.09	0.14*	0.50***	-								
12. Retirement Hopes	-0.19**	-0.14*	-0.02	0.004	0.16**	0.14*	-0.06	-0.10	0.22***	0.34***	0.41***	-							
13. Retirement Fears	-0.09	-0.02	-0.03	0.02	-0.28***	-0.27***	0.15*	-0.13*	-0.33***	-0.02	0.05	-0.03	-						
14. Volunteer Work	0.09	0.06	0.01	0.05	0.05	0.06	0.05	0.01	0.08	0.02	0.07	0.08	-0.19**	-					
15. Bridge employment	-0.07	-0.10	0.08	0.02	0.07	0.06	-0.02	-0.12	0.08	-0.01	-0.01	0.01	0.001	0.04	-				
16. New Group Memberships	0.09	-0.05	-0.004	-0.004	-0.02	0.07	0.16*	0.06	0.15**	0.16***	0.21***	0.09	-0.10	0.22***	-0.13	-			
17. Retiree Identification	0.11	0.06	-0.13*	0.06	0.08	0.002	0.05	0.10	0.35***	0.20**	0.16**	0.22***	-0.23***	0.16**	-0.17**	.33***	-		
18. Life Satisfaction	0.14*	0.03	-0.02	0.12*	0.30***	0.37***	-0.15*	0.05	0.31***	0.17***	0.20***	0.15*	-0.37***	0.24***	0.02	.27***	.33***	-	
19. Retirement Adjustment	0.02	-0.02	0.06	0.07	0.23***	0.23***	-0.08	-0.02	0.39***	0.20***	0.24***	0.30***	-0.48***	0.25***	-0.004	">.29***	.46***	.50***	-
Mean	67.21	0.70	0.69	0.75	2.64	3.31	1.73	9.15	2.28	3.31	2.86	3.97	2.45	0.97	0.24	4.25	4.11	5.26	4.03
SD	7.60	0.46	0.46	0.43	0.77	0.94	0.94	8.43	0.61	1.08	0.92	0.74	0.94	0.83	0.59	1.04	0.92	1.21	0.85

Note. $*p < .05$, $**p < .01$, $***p < .001$.

Table 2. Summary of regression results on predicting life satisfaction and retirement adjustment in Study 1.

|	Life Satisfaction						Retirement Adjustment					
	Step 1 (ΔR^2 = .32***)			Step 2 (ΔR^2 = .05***)			Step 1 (ΔR^2 = .39***)			Step 2 (ΔR^2 = .08***)		
Variable	b	SE	β	b	SE	β	b	SE	β	b	SE	β
Age	0.02	0.01	0.10	0.01	0.01	0.07	0.00	0.01	−0.003	−0.004	0.01	−0.03
Gender	0.09	0.16	0.03	0.10	0.15	0.04	0.01	0.10	0.01	0.01	0.10	0.01
Education	−0.20	0.14	−0.08	−0.15	0.14	−0.06	0.07	0.10	0.04	0.13	0.09	0.07
Marital Status	0.10	0.17	0.04	0.08	0.16	0.03	0.08	0.11	0.04	0.06	0.11	0.03
Financial Status	0.22*	0.10	0.14	0.26**	0.10	0.17	−0.01	0.07	−0.01	0.02	0.06	0.02
Physical Health	0.31***	0.08	0.25	0.33***	0.07	0.26	0.03	0.05	0.03	0.05	0.05	0.05
Other Life Changes	−0.02	0.08	−0.02	−0.07	0.07	−0.06	0.05	0.05	0.06	0.02	0.05	0.02
Retirement Duration	0.004	0.01	0.03	0.004	0.01	0.03	−0.01	0.01	−0.05	−0.01	0.01	−0.06
Retirement Voluntariness	0.25*	0.12	0.13	0.11	0.12	0.06	0.24**	0.08	0.17	0.12	0.08	0.08
Financial Planning	0.00	0.08	0.00	−0.04	0.07	−0.03	0.01	0.05	0.01	−0.02	0.05	−0.03
Health and Leisure Planning	0.10	0.09	0.08	0.05	0.09	0.04	0.14*	0.06	0.16	0.11*	0.06	0.12
Retirement Hopes	0.06	0.10	0.04	0.02	0.10	0.02	0.19**	0.07	0.17	0.15*	0.06	0.13
Retirement Fears	−0.24**	0.08	−0.18	−0.18*	0.08	−0.14	−0.37***	0.05	−0.41	−0.33***	0.05	−0.36
Volunteer Work	0.22**	0.08	0.15	0.16	0.08	0.11	0.13*	0.05	0.13	0.09	0.05	0.08
Bridge Employment	−0.01	0.11	−0.01	0.09	0.11	0.04	−0.05	0.07	−0.03	0.04	0.07	0.03
New Group Memberships				0.17*	0.07	0.15				0.08	0.04	0.10
Retiree Identification				0.24**	0.08	0.18				0.26***	0.05	0.28

*p < .05, **p < .01, ***p < .001.

contributors at Step 2. Thus, consistent with H1, these findings show that social group memberships and identities gained in retirement make an independent contribution to life satisfaction and adjustment.

Additional analysis

Of all the established factors, only retirement fears emerged as a consistent[1] negative factor in both life satisfaction and retirement adjustment. We examined this contribution further in *post hoc* analyses to investigate whether new group memberships and retiree identification buffered (i.e., moderated) the negative

impact of these fears on retirement outcomes; as demonstrated in previous research investigating the protective role of social identity variables under conditions of challenge and adversity (e.g., Haslam et al., 2014; Iyer, Jetten, Tsivrikos, Postmes, & Haslam, 2009; Jones & Jetten, 2011).

In the case of life satisfaction[2], there was a significant interaction between new group memberships and retirement fears (b = 0.13, p = .045, ΔR^2 = 0.01), but not between retiree identification and retirement fears (b = 0.09, p = .15). Simple slopes analysis showed that when retirees' strength of connection with new groups was high (+ 1 *SD*), the negative effect of retirement fears on life satisfaction was reduced
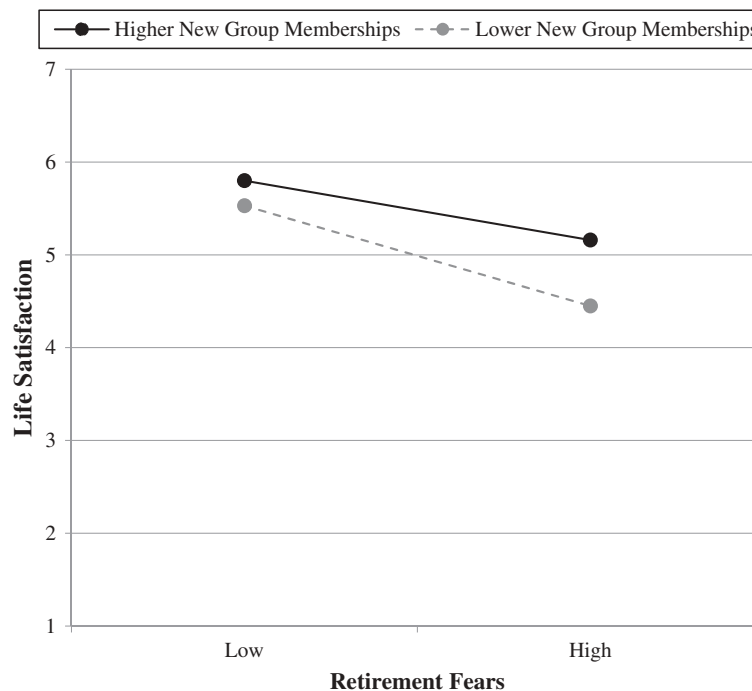
Figure 1. Study 1: The impact of new group memberships and retiree identification as a function of low and high retirement fears on psychological well-being.

$(b = -0.26, \beta = -0.27, p < .001)$, relative to when their strength of connection with new groups was low $(-1\ SD;\ b = -0.45, \beta = -0.44, p < .001$; see Figure 1).

A similar interaction pattern was found for retirement adjustment, although in this case both interactions were significant $(b_{new\ groups\ membership\ x\ retirement\ fears} = 0.16, p < .001, \Delta R^2 = 0.04;\ b_{retiree\ identification\ x\ retirement\ fears} = 0.15, p < .001, \Delta R^2 = 0.03)$. When membership of new groups $(b = -0.29, \beta = -0.32, p < .001)$ and identification with retirees $(b = -0.22, \beta = -0.24, p < .001)$ was high, the effect of retirement fears on adjustment was attenuated, relative to fears when new group memberships and retiree identification was low $(b_{new\ group\ membership} = -0.58, \beta = -0.64, p < .001,$ and $b_{retiree\ identification} = -0.24, \beta = -0.53, p < .001)$, see Figure 2.

Discussion

Study 1 examined the benefits of gaining new group memberships and a sense of identification with retirees for retirement adjustment and life satisfaction relative to established predictors. Supporting H1, findings indicate that measures which indexed the extent to which people belonged to new groups in general and with retirees in particular contributed positively and uniquely to retirement adjustment and life satisfaction; explaining between 5 to 8% of additional variance in the models. Notably, only financial status contributed to life satisfaction but neither this nor financial planning was associated with retirement adjustment. This suggests that when other psychological factors are accounted for these financial factors may be less important for retirement outcomes than previously thought.

Interestingly, the one common factor that negatively impacted on life satisfaction and adjustment was retirement expectations related to fears. An obvious question this raises is whether social identification might operate as a buffer or protective factor that reduces the negative consequences of these fears. Speaking to this point (and as noted in the Introduction), the Social Identity Approach predicts that such protection can be sourced from membership and identification with valued social groups (e.g., see Haslam et al., 2018). Consistent with this finding, Steffens et al. (2016a, 2016b) found that multiple group memberships reduced mortality risk and enhanced well-being early into retirement. In-line with this reasoning, in the present study, the results of post hoc analysis indicated that the negative effect of retirement fears on adjustment outcomes was attenuated among those who felt more strongly connected with new groups in general and with retirees in particular.

Nevertheless, there are several issues this study raises. First, participants were recruited through established organizational groups (e.g., Men's Shed, Retired Teachers Association), and this may have biased the sample towards those who were more attuned to the value of groups. To address this, we changed our recruitment strategy in the remaining studies, contacting participants individually either via e-mail (in Study 2) or through the Qualtrics Panel Unit (in Study 3). Second, having demonstrated the importance of new group memberships and retiree identification for retirement outcomes, this raises the question of how these protective factors might emerge or evolve. SIMIC theorizes that social identity gain is more likely when a person has the experience of belonging to multiple groups (H2) and that this in turn acts to increase adjustment and well-being (H3). Study 2 attempted to test these hypotheses by providing an initial exploration of this identity gain pathway.

Study 2

The purpose of this study was to test SIMIC's social identity gain pathway among retirees. Our focus here was on new group memberships and retiree identification as these predicted retirement outcomes in Study 1. However, we also introduced a new variable – multiple group memberships –
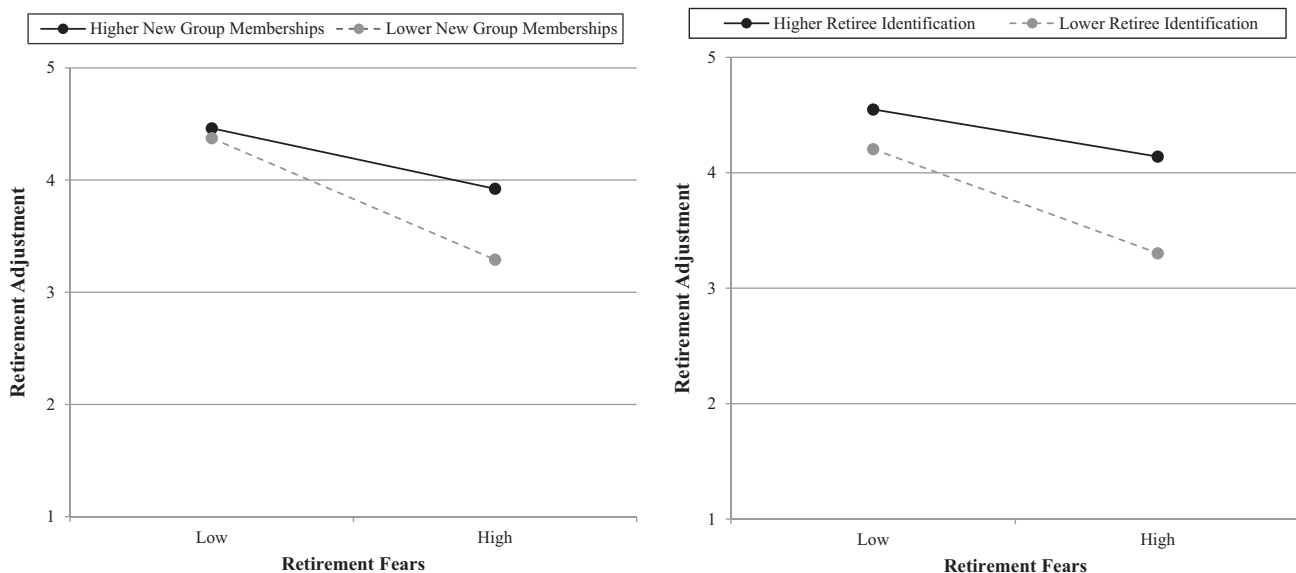

Figure 2. Study 1: The impact of new group memberships and retiree identification as a function of low and high retirement fears on retirement adjustment.

as a proposed determinant of these protective factors. The model was tested with a group of retired academics from the USA. Following SIMIC reasoning, we predicted that multiple group memberships would enhance adjustment and well-being by providing the basis to develop new group membership memberships in general (H2a) and identification with retirees specifically (H2b). Furthermore, we predicted that new group memberships (H3) and retiree identification (H4) would indirectly account for the link between existing multiple group memberships and outcomes (i.e., well-being and retirement adjustment).

Method

Participants

A total of 104 retired academics were approached individually via e-mail obtained through departmental websites and alumni associations from a university in the Midwestern USA and 90 agreed to participate (86.54% response rate). Respondents comprised mainly Caucasian Americans (96%), 72% of whom were male, with a mean age of 74.64 years ($SD = 6.79$). All had formally retired from their University position for an average of 5.97 years ($SD = 4.96$). The roles that participants held prior to retirement included teaching and supervision (52%), research or other creative work (18%), and administrative duties (8%), with 20% indicating previously engaging in more than one of these roles. Participants had worked in the university sector for an average of 33.81 years ($SD = 8.61$).

Measures and procedure

The same Study 1 measures of new group memberships, (four items; $\alpha = .96$), retiree identification (four items; $\alpha = .85$), life satisfaction (five items, rated on 5-point scale; $\alpha = .87$), and retirement adjustment (five items; $\alpha = .77$) were used. One additional measure, described below, was included to test the hypothesized source of identity gains as proposed by SIMIC.

Multiple group memberships

This four-item scale was taken from Haslam et al. (2008) and indexed the extent to which people felt connected with multiple existing groups ($\alpha = .95$, e.g., "I belong to lots of different social groups", "I have strong ties with lots of different social groups"). Responses were made on a 5-point scale (1 = *do not agree at all*, 5 = *agree completely*).

Measures were completed online and participants received payment to compensate for their time (a US$10 Amazon voucher).

Results

Means, standard deviations and zero-order correlations for measures are presented in Table 3.

Model testing

We tested a mediation model in Mplus (Muthén & Muthén, 2012) to examine the role of new group memberships and retiree identification as mechanisms through which multiple group membership enhances life satisfaction and adjustment. The mediating effects of new group memberships and retiree identification on the two outcomes were modelled and tested with 5,000 bootstrap samples. We allowed the residuals between the two mediators and between the two outcomes to covary, because we did not assume their independence (Preacher & Hayes, 2008).

The hypothesized model showed acceptable fit to the data, $\chi^2(2) = 4.84$, $p = .09$, CFI = .97 and SRMR = .04, and the standardized estimates for the mediation model are summarized in Figure 3. In support of predictions, multiple group memberships provided a basis both for developing new group memberships (H2a) and for identifying with retirees (H2b). However, in this sample, only retiree identification was significantly associated with outcome variables, predicting better life satisfaction ($\beta = 0.25$, $p = .03$) and adjustment ($\beta = 0.41$, $p = .01$). Importantly, and supporting H4, retiree identification significantly mediated the effect of multiple group membership on life satisfaction (H4a, indirect effect = 0.04, 95% bias-corrected CI [0.004, 0.12]) and adjustment (H4b, indirect effect = 0.06, 95% bias-corrected CI [0.01, 0.17]). This model explained 7% and 20% of the variance in life satisfaction and retirement adjustment, respectively.

Sensitivity analyses provided no evidence of reverse mediation. The indirect effects of life satisfaction and adjustment through new group memberships (indirect effects = 0.001 and 0.19, 95% bias-corrected CIs [−0.20, 0.27], [−0.02, 0.49], respectively) and retiree identification (indirect effects = −0.002 and 0.08, 95% bias-corrected CIs [−0.09, 0.04], [−0.05, 0.32], respectively) on existing multiple group membership were not significant.

Discussion

This study tested SIMIC's identity gain pathway in a sample of retired academics. Results indicated that the overall model fitted the data well with retiree identification mediating the relationship between multiple group memberships and both retirement adjustment and well-being, as predicted by SIMIC's identity gain pathway. However, there was no evidence of a similar mediating role for new group memberships,

Table 3. Study 2: *Means, standard deviations, and bivariate correlations among variables.*

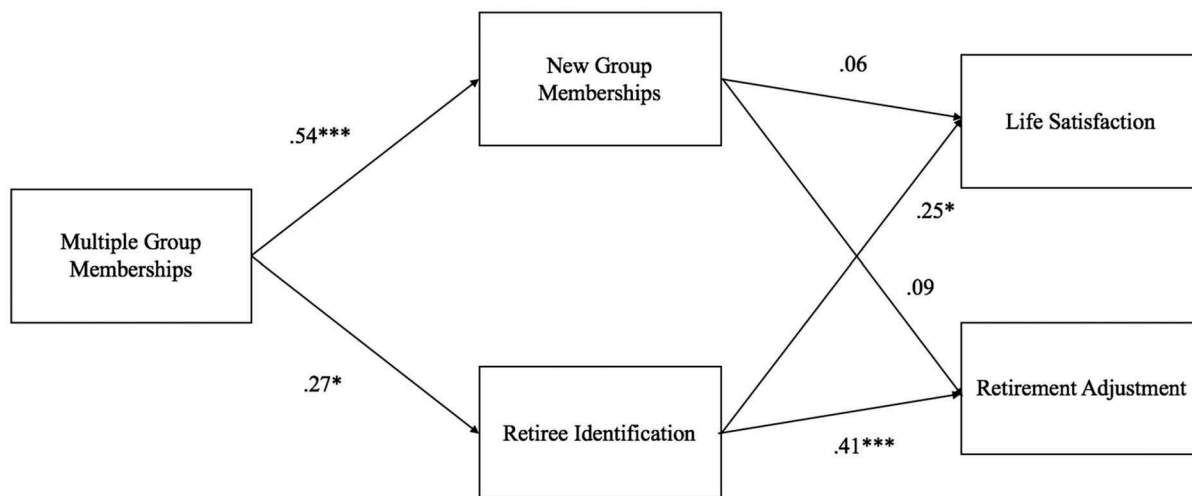|	Mean	SD	1	2	3	4	5
1. Multiple Group Memberships	3.03	1.26	-				
2. New Group Memberships	3.35	1.59	.54***	-			
3. Retiree Identification	3.73	1.06	.27*	.32**	-		
4. Life Satisfaction	4.15	0.77	.28**	.14	.27*	-	
5. Retirement Adjustment	4.26	0.73	.22*	.22*	.44***	.63***	-

Note. *$p < .05$, **$p < .01$, ***$p < .001$.

Figure 3. Standardized estimates are shown. Covariation between mediators and between outcomes is not presented in the figure.
*p < .05, **p < .01, ***p < .001

suggesting that for this population, retiree identification was the main mechanism through which health and well-being was protected this far into retirement. Indeed, it seems likely that the greater influence of retiree identification in this study was in part a consequence of participants having been retired for some years (six, on average). In this time frame, participants may have had numerous opportunities to draw on this particular identity, in turn increasing its utility as a resource and its capacity to influence outcomes. Yet whether the retiree identity is as salient or as influential as a mediator both in a more general sample of retirees and among those who are newly retired is unclear. Study 3 sought to address these issues by focusing on a diverse sample of people who were in the process of transitioning to retirement.

Study 3

Although useful in demonstrating the importance of social identity processes in protecting adjustment and well-being, Study 2 used a cross-sectional design, which limits the inferences that can be drawn from its findings. In particular, time course is an important aspect of SIMIC, which specifies that existing multiple group memberships act as a resource during a life transition to facilitate the development of new identities. In our final study, we provide an initial test of this reasoning using a two-wave study design, in which a sample of US retirees completed two surveys: the first at the point of retirement and the second several months later.

Method

Participants

Participants were recruited through the Qualtrics Organization Panel Design Unit in the USA. An initial sample of 621 individuals were recruited at Wave 1 (W1), of whom 571 met the criterion of having retired within the last 12 months. Among the latter, 121 participants were randomly selected to complete a follow-up survey 3 months later at Wave 2 (W2).

Participants who completed W2 did not differ demographically from those who did not take part in W2 (i.e., in terms of their gender, age, marital status and education level). However, those who completed W2 reported feeling better adjusted to retirement at W1, $t(569) = -2.04$, $p = .042$, $d = 0.21$, than those who were not approached at W2.

The final sample comprised the 121 participants who completed W1 and W2 surveys. Their mean age was 62.81 years ($SD = 4.82$), 55% were female, and the mean time since retirement at W1 was 3.97 months ($SD = 1.76$). The majority of participants (95%) identified themselves as Caucasian/White, and more than half of the sample held a college degree (61%). About 75% reported that they were married or in a domestic partnership.

Measures and procedure

We used the same measures to index multiple existing group memberships, new group memberships, retiree identification and retirement adjustment as Studies 1 and 2. However, a broader index of psychological well-being was used comprising responses to three items that were standardized and averaged for use in analysis. This measure comprised a life satisfaction item (i.e., "All things considered, how satisfied are you with your life as a whole these days?" rated on a 5-point scale, 1 = *completely dissatisfied*, 5 = *completely satisfied*), a happiness item (i.e., "Taking all things together, how happy would you say you are?" rated on a 4-point scale; 1 = *not happy at all*, 4 = *very happy*) and a self-esteem item (i.e., "I have high self-esteem" rated on a 5-point scale; 1 = *strongly disagree*, 5 = *strongly agree*). All measures demonstrated acceptable reliability at each wave of this study (all αs > .70).

These measures, along with information about the study and consent procedures, were presented in an online survey which participants were asked to complete at initial recruitment (W1) and then 3 months later (W2). Each participant received a total payment of US $17.50 for completing the surveys.

Results

Preliminary analysis

Descriptive statistics and bivariate correlations are presented in Table 4. Relationships between variables across the two waves were largely in the predicted direction and in the small-to-moderate range.

Paired t-tests were conducted to determine whether there was evidence of change in the key constructs across waves. New group memberships increased between W1 and W2, $t(120) = -4.18$, $p < .001$, $d = 0.38$. There was a marginal increase in retirement adjustment, $t(120) = -1.68$, $p = .095$, $d = 0.15$. However, retiree identification ($p = .13$) and psychological well-being ($p = .55$) did not change significantly in this period.

Model testing

The direction of effects in our hypothesized mediation model was tested using Mplus. The model tested (a) whether W1 multiple group memberships predicted new group memberships and retiree identification at W2, controlling for both measures at W1 (i.e., the lagged effects of new group memberships and retiree identification), and (b) whether new group memberships and retiree identification predicted psychological well-being and retirement adjustment at W2, again controlling for those measures at W1 (i.e., the lagged effects of the change in new group memberships and retiree identification). The mediational effects of W1 multiple group memberships through W2 new group memberships and retiree identification were examined using 5,000 bootstrapped samples. As in Study 2, variables measured at W1 were allowed to covary as were residuals between the two mediators and between the two outcomes at W2.

The data had acceptable fit to the model, $\chi^2(14) = 29.95$, $p < .01$, CFI = .96, and SRMR = .06, and are presented in Figure 4. New group memberships mediated the effect of multiple group memberships on psychological well-being (H3a, indirect effect = 0.03, bias-corrected 95% CI [0.01, 0.06]); a finding which also supports the hypothesized relationship between new group memberships and well-being outcomes (i.e., H1). However, there was no significant indirect effect through retiree identification (relevant to H4a, indirect effect = 0.002, bias-corrected 95% CI [−0.002, 0.02]), mainly because multiple group memberships were unrelated to change in retiree identification in this sample (H2b, $\beta = 0.07$, $p = .27$). This suggests that having access to multiple social

groups when one retires from work fosters the development of connections with new social groups in the retirement transition (H2a), which improves a person's psychological well-being (H3a).

The predicted pattern was not found for retirement adjustment (relevant to H4). While retiree identification contributed to adjustment (H1, $\beta = .35$, $p < .001$), multiple group memberships were not associated with change in retiree identification and hence the mediation was not significant. Overall, then, and contrary to findings from Study 2, it appears that membership with new groups in general, rather than identification with retirees, was the primary vehicle through which multiple groups supported well-being and adjustment in this general sample of recent retirees.

Sensitivity analyses testing effects of reverse mediation were not significant. Specifically, W1 well-being and adjustment did not predict change in multiple group memberships through change in new group and retiree identification (all CIs of indirect effects included zero). This suggests that the proposed model offers a better account of relationships between multiple group memberships, new group identification and retirement outcomes.

Discussion

Results from Study 3 provide further evidence of the role that multiple group memberships play in supporting retirement outcomes, primarily well-being, by serving as a basis from which to develop ties with new social groups in general. Here, though, having measured multiple group memberships at W1 and new group memberships and retiree identification at W2, results provide initial support for the timing of different constructs in SIMIC's gain pathway. In contrast to Study 2, the specific aspect of social identity that mediated the relationship between multiple group memberships and adjustment was people's membership in new groups, and not identification with retirees – even though the overall mean data show that participants felt strongly connected with other retirees and that this was significantly correlated with adjustment. Thus, although retiree identification was associated with well-being outcomes, people's sense of belonging to multiple groups was not the platform through which this specific social identity developed, at least in this general sample of newly retired participants.

As alluded to above, new group memberships mediated the effect of multiple groups on psychological well-being, but not for retirement adjustment. This finding may partly be a

Table 4. Study 3: *Means, standard deviations, and bivariate correlations among variables.*

	Mean	SD	1	2	3	4	5	6	7	8	9	10
1. W1 Multiple Group Memberships	2.47	1.16	-									
2. W2 Multiple Group Memberships	2.58	1.10	.67***	-								
3. W1 New Group Memberships	2.32	1.39	.53***	.43***	-							
4. W2 New Group Memberships	2.80	1.27	.56***	.71***	.57***	-						
5. W1 Retiree Identification	3.82	0.92	.33***	.29***	.32***	.32***	-					
6. W2 Retiree Identification	3.92	0.81	.27**	.34***	.14	.29***	.64***	-				
7. W1 Psychological Well-being	3.83	0.64	.26**	.23*	.25**	.24**	.37***	.32***	-			
8. W2 Psychological Well-being	3.81	0.61	.24**	.27**	.24**	.33***	.28**	.31**	.73***	-		
9. W1 Retirement Adjustment	4.01	0.81	.30**	.24*	.31**	.33***	.60***	.44***	.66***	.56***	-	
10. W2 Retirement Adjustment	4.10	0.75	.21*	.30**	.20*	.30**	.40***	.58***	.56***	.63***	.70***	-

Note. W1 = Wave 1; W2 = Wave 2. *$p < .05$, **$p < .01$, ***$p < .001$.
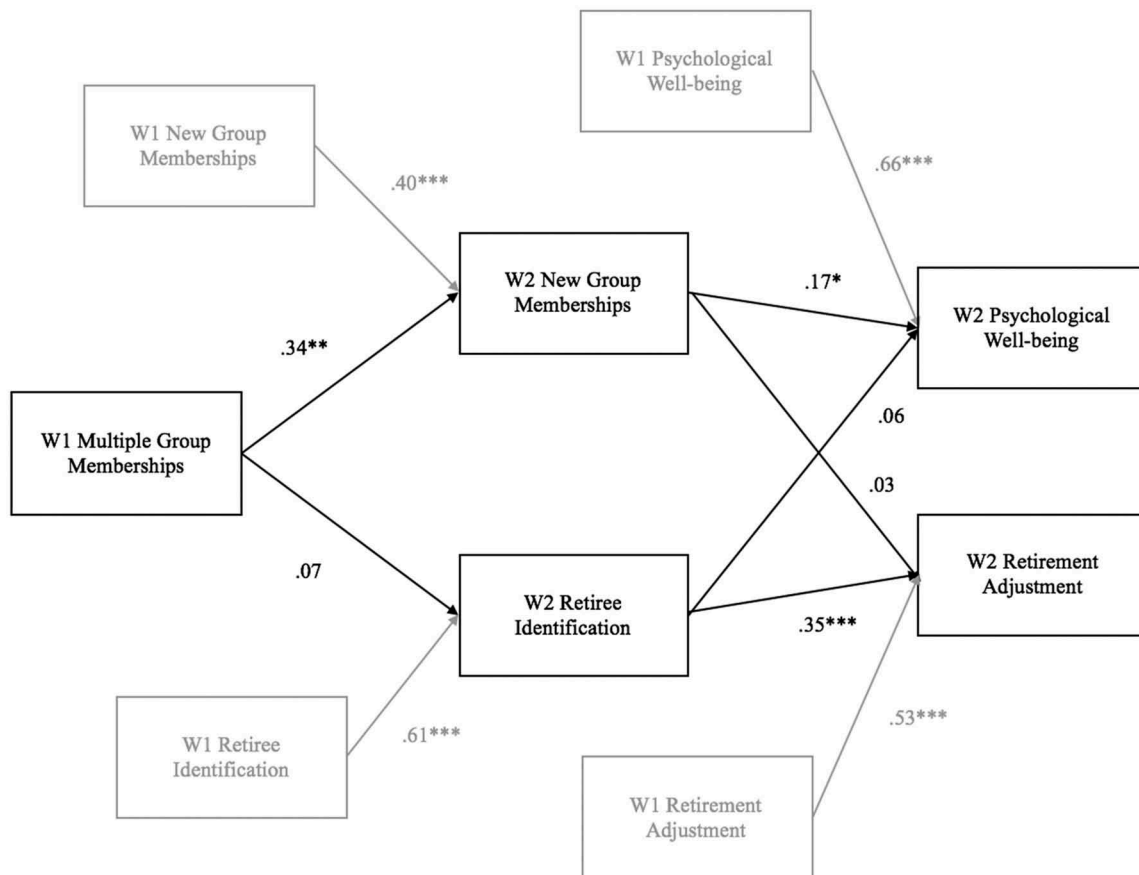
Figure 4. Study 3: Results of model testing.

Note. Standardized estimates are shown. W1 = Wave 1; W2 = Wave 2. Covariation is not presented in the figure. *$p < .05$, **$p < .01$, ***$p < .001$.

reflection of timing. As people's experience of adjustment takes place over time and is likely to fluctuate in response to the availability or absence of relevant resources (e.g., Wang et al., 2011), it may be too early for this sample of retirees to feel adjusted. Indeed, this raises questions about the extent to which measures of adjustment are useful indicators of successful outcomes *early* in the retirement transition. Instead, a focus on psychological well-being may be more informative at this juncture.

General discussion

Three studies using different samples and methodologies extend previous research by providing a systematic examination of the role that social group memberships and the social identities that are acquired in retirement play in people's adjustment to this life change. Supporting H1, Study 1 found that new group memberships post-retirement and adoption of a new identity as a retiree explained additional variance in retirement adjustment and well-being, over and above factors found to be important in previous research. Interestingly, among the established predictors, it was only retirement fears that consistently contributed to adjustment and life satisfaction, with post hoc analysis showing that the effects of such fears were moderated by social identity processes. Thus, retirement fears had less impact on the well-being of

retirees when they felt connected to new groups and identities that they had gained post-retirement.

Extending these findings, Studies 2 and 3 focused on understanding the processes through which multiple and new groups influence retirement outcomes by examining the predictors of identity gain as specified by SIMIC. Consistent with H2, we found that multiple group memberships enhanced outcomes by providing a basis for retirees to develop new social ties, but that the particular group memberships and identities that mediated this relationship differed as a function of the population sampled. More specifically, Study 3 found that new group memberships in general supported the psychological well-being of a wide sample of people retired for about 4 months (supporting H3a) but Study 2 found that developing a sense of group identification as a retiree supported well-being and adjustment in academics who had been retired for around 6 years (supporting H4a and H4b).

In all three studies, retiree identification was found to be significantly associated with adjustment. In Study 1, retiree identification made a significant independent contribution to adjustment after controlling for established predictors and was more strongly associated with this outcome than some key predictors identified in previous retirement research (notably, marital status, voluntariness of retirement and financial planning). This association was replicated in Studies 2 and 3 where retiree identification mediated the relationship

between multiple group memberships and adjustment in long-retired academics (Study 2) and was associated with enhanced adjustment in recent retirees (Study 3). These findings are consistent with those of Michinov et al. (2008), who, as we noted in the Introduction, first highlighted the relevance of the retiree identity to this population. The present research replicates and extends this finding to show that the retiree identity (a) supports adjustment (in addition to well-being), (b) is more strongly associated with adjustment than many other established factors, and (c) is a determinant of adjustment in people who have been retired for some time. The conclusion one can draw from these data is that developing a positive retiree identity is a key ingredient to successful adjustment to this life transition.

Nevertheless, it is important to recognize that identifying as a retiree may not be perceived as positive by everyone. This could be the case where retirement is imposed or involuntary (e.g., through redundancy or ill-health), as it is for about 20–30% of retirees (Isaksson & Johansson, 2000), or when it signals that one is becoming older and hence is associated with negative beliefs about ageing (see Teuscher, 2010). Under these circumstances, a person may be less willing to identify as a retiree and as a consequence this particular identity is unlikely to function as a useful and positive psychological resource. The retirement context and work exit conditions may play a role in determining whether this is the case and, where it is, pursuit of other new group memberships and identities may offer a more effective path to a positive sense of self in retirement. The caveat here, which is consistent with other research in the social identity tradition, is that identification with the group of retirees needs to be perceived as positive for it to function as a psychological resource to support adjustment.

Consistent with SIMIC's predictions and H2, we also found clear evidence that multiple group memberships enhanced retirement outcomes through their capacity to support the development of new group memberships in the transition to retirement. In particular, the two-wave design of Study 3 provided a better test of SIMIC's identity gain pathway. This showed that multiple group memberships at the point of retirement increased the likelihood of connecting with new groups in general after retirement, and that these had a positive impact on outcomes, again after retirement.

Although it was not predicted, the difference in findings between Studies 2 and 3 may be a reflection of the different populations that we studied. Among academics, who had been retired for some years, retiree identification was found to support retirement adjustment (Study 2). However, in a more general sample of retirees who were in the process of transitioning to retirement, new group memberships functioned as the mechanism through which well-being outcomes were supported (Study 3). Perhaps people who are long retired would have more opportunities to draw upon the retiree identity and, among academic retirees in particular, to do so in positive ways (e.g., by enacting their professional Emeritus status) that may further embed the retiree identity as a resource. The gender differences in these samples is also noteworthy, with Study 2 comprising mostly males (72%) and Study 3 having a more balanced gender break down (55%

female). It is not entirely clear why the retiree identity would be an especially salient resource for males who had been retired for some years. Perhaps at this later stage in retirement, the group ties of retired academics were already well established and this might provide little motivation or reason to seek out new groups. Clearly this is speculative, but it is worth investigating further to determine whether these effects, like those related to the effects of resources in retirement (see Kubicek et al., 2011; Quick & Moen, 1998), are moderated by gender.

The findings of the present studies resonate with elements of key retirement adjustment theories. Specifically, they highlight the importance of social roles and relationships in periods of life change (as suggested by Role Theory and Continuity Theory) and of social identity in particular (as suggested by the Retirement Transition Adjustment Framework and the Three-stage model of retirement decision-making). In the case of Role and Continuity Theories, there is also an emphasis on maintaining preexisting roles and relationships to provide a sense of personal continuity during change. Where some roles and relationships are lost through retirement (due to changes in work-related groups), these theories argue that other pre-existing roles and relationships unrelated to work can provide the continuity needed to support adjustment. Similar reasoning is invoked in SIMIC's identity continuity pathway, although here the emphasis is on continuity with valued pre-existing group memberships. However, continuity of this form only supports adjustment where these other relationships and groups are meaningful and this is more likely to be the case for those who are strongly tied to their professional work roles and groups. It is here that SIMIC advances on other models by observing that social group processes can support adjustment where maintenance is not possible via an identity gain pathway. In accounting for both continuity and gain, SIMIC also provides a more comprehensive model from which to understand the impact of life change in retirement. Indeed, we would argue that it is this capacity to draw together key elements of social process from a range of theories (that also relate to a range of other life events, such as starting university study, having a child, adjusting to injury, moving into care) that makes SIMIC a particularly powerful framework for understanding people's adjustment and satisfaction with life to life transition in general.

Implications

The present findings have clear implications when it comes to helping people adjust successfully to retirement. Most particularly, they suggest that it is not enough for retirement planning to focus on finances alone, and that to optimize outcomes, employees should be also be encouraged and helped to engage in social planning. One important aim of this should be to help people manage the social identity changes that they are likely to undergo in retirement, particularly those that relate to social identity loss. In-line with previous research on life-changing transitions (e.g., becoming a university student or a mother; Iyer et al., 2009; Seymour-Smith et al., 2017) our data also suggest that joining new groups in general, and ones that include other retirees in

particular, can increase the likelihood of a successful longer term adjustment into retirement. Accordingly, this would also appear to be an appropriate focus for transition planning.

However, following through with the recommendation to join new groups is not easy for everyone. This is likely to prove particularly challenging for those who are not well connected socially, or who are strongly connected to their work or profession and find it hard to 'let go' of these identities. In these situations, a formal programme of intervention, along the lines of those designed to help people with financial planning, seems likely to be beneficial. One potential framework for this is provided by the GROUPS 4 HEALTH program (Haslam et al., 2018; Haslam, Cruwys, Haslam, Dingle, & X-L, 2016) and its adaptation to the retirement context in GROUPS 4 HEALTH: RETIREMENT (G4H:R; see Haslam, Steffens et al., 2018). G4H:R is an online social identity theory-derived intervention that aims to give people the knowledge, skills and strategies they need to join new groups and to maximize their engagement with these in ways that support their health and well-being in retirement. This adaptation is currently being piloted, so its value in the context of retirement transition remains to be proven. However, in so far as it is derived from a programme with strong theoretical and empirical foundations, it would appear to be a promising model for translating research into practice in ways that provide practical support to people as they transition to retirement.

Limitations

As with all research, there are several limitations that have a bearing on our conclusions. The first relates to methodology. Both Studies 1 and 2 used a cross-sectional design, which does not allow any conclusions to be drawn about the effect of social identity processes over time. Moreover, while the two-wave design in Study 3 represented an improvement, the time between the data collection points was relatively short due to logistical and financial constraints, and this limited the extent to which it could index change within individuals. Clearly, incorporating a longer duration with further data collection points would provide a more rigorous test of social identity change as reflected in SIMIC's identity gain pathway. Furthermore, in Study 3, analyses were still based on measured (and not experimentally manipulated) variables and so conclusions about causality in these relationships can only be tentative. Experimental designs are clearly better in this regard, and here manipulation of the strength and salience of multiple group memberships (as in previous research by Jones & Jetten, 2011) and the retiree identity would provide strongest evidence of causality. Related to the issue of timing, our focus on the period after retirement does not allow us to draw any conclusions about the influence of pre-retirement factors. This timing may have had a bearing on some of our findings, particularly in the case of financial planning which may be more important in the pre-retirement period. Our focus on the post-retirement period was chosen deliberately to test the impact of SIMIC's identity gain pathway. However, to interrogate this model further, it would be desirable to

follow people for a longer period of time so as to better capture the influence of factors in the pre- to post-retirement transition.

Second, we examined different samples in the present research, with Studies 1 and 3 comprising people from diverse backgrounds but Study 2 focusing on the specific population of retired academics. While theories of retirement adjustment and SIMIC do not specifically predict that retirement adjustment outcomes should differ as a function of occupation type or population, and the use of different samples can be seen as a strength of the present research in providing evidence of generalizability, there may well be particular characteristics of these samples that make them more or less vulnerable than others in the transition. Retired academics, for example, are likely to represent a more socioeconomically and cognitively advantaged group than a sample of general retirees, and this might confer greater protection under conditions of life change. While controlling for education alongside financial status and planning should help to reduce these effects, it is clearly difficult to control for all potential population-related confounds. Accordingly, recognition of potential differences across retiree samples is clearly warranted in the interpretation of our findings.

Conclusion

The present research extends a growing body of work that confirms the central role of social group memberships and identification as psychological resources that can protect people in periods of life change. More specifically, it advances understanding by showing that new groups and identities gained after retirement play a central role in supporting adjustment. Additionally, it raises for the first time the potential value of particular social identities at different stages in the retirement transition. Specifically, our results suggest that new groups in general can be a key resource at the point of retirement, and that identification with the specific group of retirees can become an important resource further down the track.

To date, social group processes have been treated largely as an afterthought in the retirement context, if they are considered at all. However, the present research shows that paying heed to the importance of new group memberships and associated social identities – particularly when designing programs to promote successful retirement – can contribute to solutions to the challenges posed by this particular life transition. For, when internalized as part of people's sense of self and identity, not only do these enhance the health and well-being of retirees but so too they allow society to benefit from retirees' various group-focused contributions. When it comes to groups in retirement, then, it is not so much a case of "if you can't beat them, join them", as "*because* you can't beat them, join them".

Notes

1. Removing the two items relevant to financial concerns in the Retirement Fears Scale (i.e., "Not having enough income to get by," "Inflation and the cost of living") did not change the pattern of

results in the moderation analysis. The interaction between retirement fears and new group membership in the prediction of life satisfaction remained significant ($b = .14$, $p = .027$). For retirement adjustment, the interactions between retirement fears and new group membership ($b = .15$, $p < .001$), and between retirement fears and retiree identification ($b = .12$, $p = .002$) were also significant.

2. Single-item measures, such as this *Satisfaction with Life (SWL)*, have similar psychometric properties and predictive utility and are widely used in surveys of large populations (e.g., national censuses; Helliwell, Barrington-Leigh, Harris, & Huang, 2010; see also Diener, Lucas, Schimmack, & Helliwell, 2009).

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References

Atchley, R. C. (1971). Retirement and leisure participation: Continuity or crisis? *The Gerontologist*, 11, 13–17.

Atchley, R. C. (1989). A continuity theory of normal aging. *The Gerontological Society of America*, 29, 183–190.

Atchley, R. C. (1999). Continuity theory, self, and social structure. In C. D. Ryff & V. W. Marshall (Eds), *Families and retirement* (pp. 145–158). Newbury Park, CA: Sage.

Australian Bureau of Statistics (2017). *Retirement and Retirement Intentions*, cat. no. 6238.0. Retrieved from http://www.abs.gov.au/AUSSTATS/abs@.nsf/Lookup/6238.0Main+Features1July%202016%20to%20June%202017?OpenDocument

Barnes-Farrell, J. L. (2003). Beyond health and wealth: Attitudinal and other influences on retirement decision-making. In G. A. Adams & T. A. Beehr (Eds), *Retirement: reasons, processes, and results* (pp. 159–187). New York: Springer.

Bowling, A. (2007). Aspirations for older age in the 21st century: What is successful aging? *International Journal of Aging and Human Development*, 64, 263–297.

Braithwaite, V. A., Gibson, D. M., & Bosly-Craft, R. (1986). An exploratory study of poor adjustment styles among retirees. *Social Science & Medicine*, 23, 493–499.

Calvo, E., Haverstick, K., & Sass, S. A. (2009). Gradual retirement, sense of control and Retirees' happiness. *Research on Aging*, 31, 112–135.

DeSalvo, K. B., Fisher, W. P., Tran, K., Bloser, N., Merrill, W., & Peabody, J. (2006). Assessing measurement properties of two single-item general health measures. *Quality of Life Research*, 15, 191–201.

Diener, E., Emmons, R. A., Larsen, R. J., & Griffin, S. (1985). The satisfaction with life scale. *Journal of Personality Assessment*, 49, 71–75.

Diener, E., Lucas, R., Schimmack, U., & Helliwell, J. F. (2009). *Well-Being for public policy*. New York and Oxford: Oxford University Press.

Donaldson, T., Earl, J. K., & Muratore, A. M. (2010). Extending the integrated model of retirement adjustment: Incorporating mastery and retirement planning. *Journal of Vocational Behavior*, 77, 279–289.

Doosje, B., Ellemers, N., & Spears, R. (1995). Perceived intragroup variability as a function of group status and identification. *Journal of Experimental Social Psychology*, 31, 410–436.

Dorfman, L. T. (1992). Academics and the transition to retirement. *Educational Gerontology*, 18, 343–363.

Dorfman, L. T. (1995). Health conditions and perceived quality of life in retirement. *Health & Social Work*, 20, 192–199.

Dorfman, L. T., & Douglas, K. (2005). Leisure and the retired professor: Occupation matters. *Educational Gerontology*, 31, 343–361.

Feldman, D. C, & Beehr, T. A. (2011). A three-phase model of retirement decision making. *American Psychologist*, 66, 193–203.

Fry, P. S. (2000). Whose quality of life is it anyway? Why not ask seniors to tell us about it? *International Journal of Aging and Human Development*, 50, 245–261.

Gaillard, M., & Desmette, D. (2008). Intergroup predictors of older workers' attitudes towards work and early retirement. *European Journal of Work and Organizational Psychology*, 17, 450–481.

Galesic, M. (2006). Dropouts on the web: Effects of interest and burden experienced during an online survey. *Journal of Official Statistics*, 22, 313–328. Retrieved from https://www.degruyter.com/view/j/jos

Gall, T. L., Evans, D. R., & Howard, J. (1997). The retirement adjustment process: Changes in the well-being of male retirees across time. *The Journals of Gerontology Series B: Psychological Sciences and Social Sciences*, 52, P110–P117.

Glei, D. A., Landau, D. A., Goldman, N., Chuang, Y.-L., Rodrıguez, G., & Weinstein, M. (2005). Participating in social activities helps to preserve cognitive function: An analysis of a longitudinal, population-based study of the elderly. *International Journal of Epidemiology*, 34, 864–871.

Greenaway, K. H., Cruwys, T., Haslam, S. A., & Jetten, J. (2015). Social identities promote well-being because they satisfy global psychological needs. *European Journal of Social Psychology*, 46, 294–307.

Gubler, T., & Pierce, L. (2014). Healthy, wealthy, and wise retirement planning predicts employee health improvements. *Psychological Science*, 25, 1822–1830.

Haslam, C., Cruwys, T., Chang, M., Bentley, S., Haslam, A., Dingle, G., & Jetten, J. (2018). Groups 4 Health reduces loneliness and social anxiety in adults with psychological distress: Findings from a randomised controlled trial. *Manuscript submitted for publication*.

Haslam, C., Cruwys, T., Haslam, S. A., Dingle, G. A., & X-L, C. M. (2016). Groups 4 Health: Evidence that a social-identity intervention that builds and strengthens social group membership improves health. *Journal of Affective Disorders*, 194, 188–195.

Haslam, C., Haslam, S. A., Ysseldyk, R., McCloskey, L.-G., Pfisterer, K., & Brown, S. (2014). Collective cognition in aging: Social identification moderates cognitive health and well-being following story- and song-based reminiscence. *Aging and Mental Health*, 18, 425–434.

Haslam, C., Holme, A., Haslam, S. A., Iyer, A., Jettem, J., & Williams, W. H. (2008). Maintaining group memberships: Social identity continuity predicts well-being after stroke. *Neuropsychological Rehabiliation*, 18, 671–691.

Haslam, C., Jetten, J., Dingle G. A., C. T., & Haslam, S. A. (2018). *The new psychology of health: Advancing the social cure*. Oxford, UK: Psychology Press, Taylor and Francis Group.

Haslam, C., Steffens, N. K., Branscombe, N. R., Haslam, S. A., Cruwys, T., Lam, B., … Yang, J. (2018). The importance of social groups for retirement adjustment: Evidence, application, and policy implications of the social identity model of identity change. *Social issues and policy review*. doi:10.1111/sipr.12049

Haslam, S. A., Reicher, S. D., & Levine, M. (2012). When other people are heaven, when other people are hell: How social identity determines the nature and impact of social support. In J. Jetten, C. Haslam, & S. A. Haslam (Eds), *The social cure: Identity, health, and well-being* (pp. 157–174). Hove, UK: Psychology Press.

Haslam, S. A., Jetten, J., Postmes, T., & Haslam, C. (2009). Social identity, health and well-being: An emerging agenda for applied psychology. *Applied Psychology*, 58, 1–23.

Haslam, S. A., O'Brien, A., Jetten, J., Vormedal, K., & Penna, S. (2005). Taking the strain: Social identity, social support and the experience of stress. *British Journal of Social Psychology*, 44, 355–370.

Helliwell, J. F., Barrington-Leigh, C. P., Harris, A., & Huang, H. (2010). International evidence on the social context of well-being. In D. Kahneman, E. Diener, & J. F. Helliwell (Eds), *International Differences in Well-Being* (pp. 291–350). Oxford: Oxford University Press.

Hesketh, B., Griffin, B., Dawis, R., & Bayl-Smith, P. (2015). Extensions to the dynamic aspects of the Retirement Transition and Adjustment

Framework (RTAF): Adjustment behaviors, work styles, and identity. *Work, Aging and Retirement*, 1, 79–91.

Hong, L. K., & Duff, R. W. (1997). Relative importance of spouses, children and friends in the life satisfaction of retirement community residents. *Journal of Clinical Geropsychology*, 3, 275–282. ISSN:1079-9362.

Hunter, W., Wang, W. E. I., & Worsley, A. (2007). Retirement planning and expectations of Australian babyboomers. *Annals of the New York Academy of Sciences*, 1114, 267–278.

Isaksson, K., & Johansson, G. (2000). Adaptation to continued work and early retirement following downsizing: Long-term effects and gender differences. *Journal of Occupational and Organizational Psychology*, 73, 241–256.

Iyer, A., Jetten, J., Tsivrikos, D., Postmes, T., & Haslam, S. A. (2009). The more (and the more compatible) the merrier: Multiple group memberships and identity compatibility as predictors of adjustment after life transitions. *British Journal of Social Psychology*, 48, 707–733.

Jetten, J., Haslam, S. A., Iyer, A., & Haslam, C. (2009). The psychology of prosocial behavior: Group processes, intergroup relations, and helping. In S. Stürmer & M. Snyder M. (Eds), *Turning to others in times of change: Social identity and coping with stress* (pp. 139–156). Oxford, UK: Blackwell.

Jetten, J., Branscombe, N. R., Haslam, S. A., Haslam, C., Cruwys, T., Jones, J. M., … Zhang, A. (2015). Having a lot of a good thing: Multiple important group memberships as a source of self-esteem. *PloS One*, 10, e0124609.

Jetten, J., Haslam, C., & Haslam, S. A. (2012). *The social cure: Identity, health, and well-being*. Hove, UK: Psychology Press.

Jones, J. M., & Jetten, J. (2011). Recovering from strain and enduring pain multiple group memberships promote resilience in the face of physical challenges. *Social Psychological and Personality Science*, 2, 239–244.

Juster, F. T., & Suzman, R. (1995). An overview of the Health and Retirement Study. *Journal of Human Resources*, 30, S7–S56. Retrieved from http://www.jstor.org/stable/146277

Kim, J. E., & Moen, P. (2001). Is retirement good or bad for subjective well-being?. *Current Directions in Psychological Science*, 10, 83–86.

Kim, J. E., & Moen, P. (2002). Retirement transitions, gender, and psychological well-being: A life-course, ecological model. *Journal of Gerontology: Psychological Sciences*, 57B, 212–222.

Kim, S., & Feldman, D. C. (2000). Working in retirement: The antecedents of bridge employment and its consequences for quality of life in retirement. *Academy of Management Journal*, 43, 1195–1210.

Kubicek, B., Korunka, C., Raymo, J. M., & Hoonakker, P. (2011). Psychological well-being in retirement: The effects of personal and gendered contextual resources. *Journal of Occupational Health Psychology*, 16, 230–246.

Kupperbusch, C., Levenson, R. W., & Ebling, R. (2003). Predicting husbands' and wives' retirement satisfaction from the emotional qualities of marital interaction. *Journal of Social and Personal Relationships*, 20, 335–354.

Leung, C. S., & Earl, J. K. (2012). Retirement Resources Inventory: Construction, factor structure and psychometric properties. *Journal of Vocational Behavior*, 81, 171–212.

Linton, R. (1936). *The Study of Man*. New York: Appleton-Century.

McGoldrick, A. E., & Cooper, C. L. (1994). Health and ageing as factors in the retirement experience. *European Work and Organizational Psychologist*, 4, 1–20.

Michinov, E., Fouquereau, E., & Fernandez, A. (2008). Retirees' social identity and satisfaction with retirement. *The International Journal of Aging and Human Development*, 66, 175–194.

Moen, P., Kim, J. E., & Hofmeister, H. (2001). Couples' work/retirement transitions, gender, and marital quality. *Social Psychology Quarterly*, 64, 55–71.

Muratore, A. M., & Earl, J. K. (2010). Predicting retirement preparation through the design of a new measure. *Australian Psychologist*, 45, 98–111.

Muthén, L. K., & Muthén, B. O. (2012). *Mplus user's guide* (7th ed.). Los Angeles: Muthén & Muthén.

Myers, S., & Booth, A. (1996). Men's retirement and marital quality. *Journal of Family Issues*, 17, 336–357.

Nguyen, S., Tirrito, T. S., & Barkley, W. M. (2014). Fear as a predictor of life satisfaction in retirement in Canada. *Educational Gerontology*, 40, 102–122.

Pinquart, M., & Schindler, I. (2007). Changes of life satisfaction in the transition to retirement: A latent-class approach. *Psychology and Aging*, 22, 442–455.

Praharso, N. F., Tear, M. J., & Cruwys, T. (2017). Stressful life transitions and wellbeing: A comparison of the stress buffering hypothesis and the social identity model of identity change. *Psychiatry Research*, 247, 265–275.

Preacher, K. J., & Hayes, A. F. (2008). Asymptotic and resampling strategies for assessing and comparing indirect effects in multiple mediator models. *Behavior Research Methods*, 40, 879–891.

Price, C. A., & Joo, E. (2005). Exploring the relationship between marital status and women's retirement satisfaction. *International Journal of Aging and Human Development*, 61, 37–55.

Quick, H. E., & Moen, P. (1998). Gender, employment, and retirement quality: A life course approach to the differential experiences of men and women. *Journal of Occupational Health Psychology*, 3, 44–64.

Reitzes, D. C., & Mutran, E. J. (2004). The transition into retirement: Stages and factors that influence retirement adjustment. *International Journal of Aging and Human Development*, 59, 63–84.

Reitzes, D. C., Mutran, E. J., & Fernandez, M. E. (1996). Does retirement hurt well-being? Factors influencing self-esteem and depression among retirees and workers. *The Gerontologist*, 36, 649–656.

Schlossberg, N. K. (2004). *Retire smart. Retire happy: Finding your true path*. Washington, DC: American Psychological Association, Life Tools.

Seymour-Smith, M., Cruwys, T., Haslam, S. A., & Brodribb, W. (2017). Loss of group memberships predicts depression in postpartum mothers. *Social Psychiatry and Psychiatric Epidemiology*, 52, 201–210.

Steffens, N. K., Cruwys, T., Haslam, C., Jetten, J., & Haslam, S. A. (2016a). Social group memberships in retirement are associated with reduced risk of premature death: Evidence from a longitudinal cohort study. *BMJ Open*, 6, e010164.

Steffens, N. K., Jetten, J., Haslam, C., Cruwys, T., & Haslam, S. A. (2016b). Multiple social identities enhance health post-retirement because they are the basis for giving social support. *Frontiers in Psychology*. doi:10.3389/fpsyg.2016.01519

Szinovacz, M. E. (2003). Contexts and pathways: Retirement as institution, process, and experience. In G. A. Adams & T. A. Beehr (Eds), *Retirement: Reasons, processes, and results* (pp. 6–52). New York: Springer.

Szinovacz, M. E., & Davey, A. (2004). Honeymoons and joint lunches: Effects of retirement and spouse's employment on depressive symptoms. *The Journal of Gerontology: Psychological Sciences, 59B*, P233–P245. doi: 10.1093/geronb/59.5.P233

Szinovacz, M. E., Martin, L., & Davey, A. 2014. Recession and expected retirement age: Another look at the evidence. *The Gerontologist*, 54,245–25710.1093/geront/gn t 010.

Tajfel, H. (1972). La categorisation sociale (English trans. In S. Moscovici (Ed), *Introduction a la psychologie sociale* (Vol. 1, pp. 272–302). Paris: Larousse.

Tajfel, H., & Turner, J. C. (1979). An integrative theory of intergroup conflict. *The Social Psychology of Intergroup Relations*, 33, 74.

Taylor, M. A., Goldberg, C., Shore, L. M., & Lipka, P. (2008). The effects of retirement expectations and social support on post-retirement adjustment: A longitudinal analysis. *Journal of Managerial Psychology*, 23, 458–470.

Taylor-Carter, M. A., Cook, K., & Weinberg, C. (1997). Planning and expectations of the retirement experience. *Educational Gerontology*, 23, 273–288.

Teuscher, U. (2010). Change and persistence of personal identities after the transition to retirement. *International Journal of Aging Human Development*, 70, 89–106.

Turner, J. C., Hogg, M. A., Oakes, P. J., Reicher, S. D., & Wetherell, M. S. (1987). *Rediscovering the social group: A self-categorization theory*. Blackwell: Oxford.

Turner, J. C., Oakes, P. J., Haslam, S. A., & McGarty, C. (1994). Self and collective: Cognition and social context. *Personality and Social Psychology Bulletin*, 20, 454–463.

van Solinge, H., & Henkens, K. (2008). Adjustment and satisfaction with retirement. *Psychology and Aging*, 2, 422–434.

Virshup, R. H., & Coombs, R. H. (1993). Physicians' adjustment to retirement. *Western Journal of Medicine*, 158, 142–144. Retrieved from https://search-proquest-com.ezproxy.library.uq.edu.au/docview/1775229955?accountid=14723

Wang, M., Henkens, K., & van Solinge, H. (2011). Retirement adjustment: A review of theoretical and empirical advancements. *American Psychologist*, *66*, 204–213.

Wang, M., & Shi, J. (2014). Psychological research on retirement. *Annual Review of Psychology*, *65*, 209–233.

Wang, M., & Shultz, K. S. (2010). Employee retirement: A review and recommendations for future investigation. *Journal of Management*, *36*, 172–206.

Wong, J. Y., & Earl, J. K. (2009). Towards an integrated model of individual, psychosocial, and organizational predictors of retirement adjustment. *Journal of Vocational Behavior*, *75*, 1–13.