

## How Collective Participation Impacts Social Identity

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### **How Collective Participation Impacts Social Identity: A Longitudinal Study with Control Data**

#### **Abstract**

A key issue for political psychology concerns the processes whereby people come to psychologically invest in socially and politically significant group identities. Since Durkheim, it has been assumed that participation in group-relevant collective events increases one's investment in such group identities. However, little empirical research explicitly addresses this or the processes involved. We investigated these issues in a longitudinal questionnaire study conducted at one of the world's largest collective events – a month-long Hindu festival in north India (the *Magh Mela*). Data gathered from pilgrims and comparable others who did not attend the event show that one month after the event, those who had participated (but not the controls) exhibited heightened social identification as Hindu and increased frequency of prayer rituals. Data gathered from pilgrims during the festival predicted these outcomes. Specifically, perceptions of sharing a common identity with other pilgrims, and of being able to enact their social identity in this event, helped predict changes in participants' identification and behavior. The wider significance of these data for political psychology is discussed.

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### **Keywords**

Social Identification, Collective Participation, Crowd Psychology, Collective Self-Realization, Pilgrimage

**How Collective Participation Impacts Social Identity: A Longitudinal Study  
with Control Data**

In this paper we investigate if and how participation in a collective event affects participants' subsequent social identification and behavior. The significance of this question derives from the importance of identity as a core concept across the social sciences. As Wetherell (2010) notes: "the study of social identity has been synonymous with the study of social categories, roles and social locations such as 'woman', 'black', 'American', 'worker'. For current researchers who understand identity in this way, it remains one of the most important and significant points at which new formations of 'race', colonization and empire, ethnicities, sexuality, gender, disabilities and social class etc. can be interrogated" (2010, p.4). Indeed, one can go further. It is through the subjective process of acquiring social identities, that people come together, form solidarities within the boundaries of identity and develop antagonisms across identity boundaries. Indeed, it is through this process that they come to constitute the social forces through which our world is constituted. In short, the study of social identities brings together psychological dynamics and political process. It is the prime locus for a political psychology (Reicher, 2004).

For these reasons, the question of how people come to embrace particular identities becomes an issue of prime importance – although it should be acknowledged that even to pose it is controversial. For so-called 'primordialists' certain categories (notably ethnic categories) are taken-for-granted and it is viewed as inevitable that people will identify with them, and that inter-group conflict arises from old loyalties 'reawakening' (see Chandra, 2012 for a critique). Others, however (including Chandra), highlight the fluidity of identity categories and the social processes shaping the production. This is apparent in work addressing why and when politicians advance particular identity constructions (Chandra,

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2012) and the strategic construction of identities (Hopkins & Kahani-Hopkins, 2009; Reicher & Hopkins, 2001). In our work we present here we address the question of what sort of experiences lead ordinary people to invest in given identities. Our underlying assumption is identities serve to orient and guide people through the social world – they tell us how to live and how to act (Wetherell, 2010). Hence, identities must ‘fit’ with the structure of social experience if they are to be adopted.

Since Durkheim, there has been particular interest in the impact of participating in mass events. Durkheim proposed that collective events, especially ritualized events, create and consolidate the social identities and social relations that shape our everyday interactions (Durkheim, 1912, 1995). This has led historians and social anthropologists to focus on such events (e.g., festivals and memorial days) on the assumption that they have important social and political consequences (e.g. Gillis, 1994, Ozouf, 1991). Yet, the assumption that collective participation is important for forming and revivifying participants’ social identifications has gone largely untested. There has been little empirical investigation of whether participation does indeed impact social identification and, if so, how.

Similarly, amongst those interested in such events, there has been little attempt to link such experiences to the social and political organization of society. In part this reflects a tendency to assume that the psychology of mass events is distinctive and removed from everyday life. Following Le Bon’s (1896/1947) analysis of crowd behavior, psychology has tended to assume that the behavior of people in mass gatherings is an aberration and tells us little about the normal functioning of individuals in society (Smelser, 1962). Such is the power of this characterization of crowd psychology that even more sympathetic readings of mass events tend to imply that they are rather exotic and of limited relevance for everyday life. For example, referring to Victor Turner’s (1973) famous analysis of pilgrimage, Ehrenreich (2007) observes that although it gave ‘group behavior a legitimate place in

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anthropology' this 'was a marginal and second-rate place' (p. 11). Indeed, collective events have traditionally been viewed more as offering a form of occasional relief from the structure of everyday reality than as being important in shaping that structure. But this is beginning to change.

### *Social identity at collective events*

Recent analyses of crowd behavior have started to challenge this characterization of collective events as marginal to central social psychological questions (Reicher, 2011). Drawing on the social identity approach to group behavior (Turner, Hogg, Oakes, Reicher & Wetherell, 1987), studies have shown that the behavior of people in crowds is far from random or meaningless. It is argued that instead of losing identity and hence losing control of their actions, crowd members' behavior reflects the contents of collective identity and is meaningful to those involved (Reicher, 1984). Such research also shows that the social identities enacted in such events have their roots in crowd members' everyday experiences.

More recently, researchers have begun to address the question of how participation in collective events feeds back into individuals' post-participation social identifications. Ethnographic analyses of collective protests show participants report changes in their relationships with other crowd members (Drury & Reicher 2000; Reicher 1996), and changes in how they define themselves. Thus, Drury and Reicher's (2000) work shows that although crowd members were initially concerned with local and restricted interests (e.g., to stop damage to local areas of natural beauty), they emerged radicalized (and self-defined as 'anti-capitalist'). Moreover, some reported that their experience of participation fed back into their commitment to future protest (Drury & Reicher, 2005). However, such work is not longitudinal: the evidence of change is either retrospective (claims after an event that identity

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has been strengthened) or prospective (claims that experience in a prior event will make one participate more in the future).

Other research has employed experimental paradigms to address the impact of participation. For example, van Zomeren, Leach and Spears (2010, 2012) provide experimental evidence that increasing the extent to which people believe that collective action will achieve group-relevant goals increases social identification. However, again, such work lacks a longitudinal dimension. It is based on the assumption that participation increases a belief in goal achievement and then demonstrates the impact of such beliefs on identification. But this does not show directly that identification increases after participation. Indeed, the authors acknowledge that while their study has strong internal validity, it lacks external validity (van Zomeren et al., 2010, p. 1059).

Our first aim, in this paper, is to supply properly longitudinal data concerning the impact of participation in a collective event on identity and behavior in a design that includes a control group of non-attendees. Our second aim is to explore some of the psychological processes through which such impact (if any) is produced. In other words, what is it about the experience of participation in an event which leads to changes in social identification which endure after the event? This question can be addressed by considering the psychological transformations that occur when one participates in a mass gathering.

### *Theorizing the impact of participation*

Social identity theorists (e.g. Neville & Reicher, 2011; Reicher, 2011) draw a key distinction between a physical crowd (or aggregate) which consists a number of people who happen to be physically co-present but who have no sense of connection with each other (e.g. shoppers on a busy high street) and a psychological crowd which, as we have just intimated,

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consists of people who are co-present and who have a sense of sharing a common social identity (e.g. Americans at a July 4<sup>th</sup> celebration or watching their team in the World Cup).

This sense of social identity entails two elements. The first is one's own individual sense of belonging to the broader category (identity strength – e.g. 'I am an American'). In Benedict Anderson's well-worn phrase, it is about being part of an 'imagined community' (Anderson, 1993). While this is important, it is clearly not sufficient to explain crowd experience. After all, it is possible to imagine oneself as part of an American community when on one's own (say watching the world cup on the TV) or amongst a group of non-Americans. The second element of the crowd experience, is the sense that other co-present individuals share the same identity as oneself and, what is more, that those present see each other as sharing the same identity (e.g. 'we are all Americans'). This shared identity is less about belonging to the imagined community than a sense of community amongst an embodied mass of people. It is not so much a connection to an abstract category than to concrete others. While such shared identity (as we term it) does not occur in all crowds, where it does, there are a number of consequences concerning the relations between people.

Where there is shared identity, there is a shift towards intimacy amongst crowd members (see Reicher, 2011, 2012, see also Prayag Magh Mela Research Group or PMMRG, 2007a b). That is, people begin to cooperate, to trust and respect each other, to provide mutual support to each other (for a review, see Reicher & Haslam, 2010). In turn, this facilitates effective co-action amongst group members, which makes them more effective in realizing group goals (Drury & Reicher, 2000, 2005; Hopkins et al., in press; Pandey et al., 2014). That is, as a function of shared identity, the crowd becomes a space in which members are able to enact their identities, to turn identity-related ideals into a reality. We term this accomplishment 'collective self-realisation' (CSR – see Reicher & Haslam, 2006).

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If, then, we return to our original assumption that identities are assumed to the extent to which they fit with the structure of social experience, we would also expect that CSR will lead to greater identification with the relevant category. It is by making abstract injunctions into manifest practices that the associated identities become meaningful and useful to us.

Following this logic, whilst having a sense of broad category membership (identity strength) is important in bringing about collective participation in the first place (see van Zomeren, Leach & Spears, 2012), the enhancement of identification which occurs through participation depends upon a sense of shared identity amongst those actually co-present. This facilitates co-ordinated action amongst these people and hence the ability to enact identity-based norms and values. More technically, we propose that the impact of participation on change in identity strength is a function of shared identity and that this effect is mediated by CSR.

As indicated, there is rich and suggestive work, mainly ethnographic, supporting the strands to this argument: the impact of shared identity on relations amongst group members (Neville & Reicher, 2011; PMMRG 2007a, b), the link from intimate social relations to CSR (Drury & Reicher, 2005; Hopkins et al., in press; Pandey et al., 2014), and the link from CSR to identity strength and commitment to the group (Drury & Reicher, 2005, 2009). Yet, this evidence is limited by the fact that it is not systematic, it never investigates the process as a whole, and it is not fully longitudinal. Ideally, an account of the change process must collect data at three time points, showing how changes in identity from before to after an event are explained by evidence (specifically, levels of shared identity and CSR) collected during the event.

It is far from straightforward, however, to study the same people before during and after participation in an event (McAdam, 1989). It is even harder to do this alongside a comparable non-participant control group in order to ensure that changes are due to

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participation itself rather than some other factor that occurred between the pre- and post-event time-points (such as political events that may have made certain identities more salient for everybody). Such problems are compounded when the events of interest are spontaneous. Yet, even pre-planned events (e.g., national commemorations, religious festivals) present serious logistic difficulties.

Perhaps the most rigorous analysis available is an ingenious study of Pakistani pilgrims undertaking the *hajj* (the pilgrimage to Mecca: Clingingsmith, Khwaja & Kremer, 2009). This took advantage of the fact that in Pakistan there is a lottery to decide who can take up the limited number of available places, and so was able to compare data provided by successful and unsuccessful applicants after the *hajj*. However, although allowing a comparative element, the study was not fully longitudinal since data were only collected after the *hajj*. Also, no data were collected during the event to examine what might explain differences between participants and non-participants. Moreover, it focused on social and political attitudes rather than the basic questions we have identified above: whether and how participation re-vivifies the core social identities that shape everyday social relationships and social action.

Our research on the Mela, then, aims to provide fully longitudinal data so as to be able to address questions of change and process. Before outlining the study, we describe the event itself.

### *The Prayag Magh Mela*

Each year, during the Hindu lunar month of Magh (mid-January to mid-February) pilgrims (typically, quite elderly Brahmins from rural North India) gather on the banks of the *Ganges* and *Yamuna* rivers at *Prayag* (Allahabad, Uttar Pradesh, India). Prayag is amongst the holiest of Hindu spiritual locations and every 12 years is the site of the *Maha Kumbh Mela*. However, even in non-Kumbh years it attracts millions, several hundred thousand of

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whom (known as *Kalpwasīs*) live for a month in tents on the Ganges floodplain. These latter undertake this participation as part of a longer-term commitment to attend the Mela over 12 years (often more). Participation in the Mela is not a religious duty for Hindus in the same way as participating in the *hajj* is for Muslims and many highly identified Hindus do not undertake it (PMMRG, 2007a).

A pilgrimage may be conceptualized as ‘a journey undertaken by a person in quest of a place or state that he/she believes to embody a valued ideal’ (Morinis, 1992, p. 4). For the *Kalpwasīs*, this ideal entails relinquishing worldly concerns and pursuing the spiritual (Hopkins et al., in press). They live in basic conditions, adopt a simple diet of one vegetarian meal a day, and immerse themselves in prayer rituals - most notably bathing in the sacred rivers twice a day. Features of the environment judged as congruent with this identity-related lifestyle are welcomed, and those judged incongruent are not. Thus, noises believed to have religious connotations are welcomed, but those with secular connotations are judged intrusive (Shankar, et al, 2013) and processed differently (Srinivasan, et al, 2013). Our research concerns the question of how one’s sense of being part of the broad Hindu ‘imagined community’ is affected by the concrete experience of being a pilgrim and of being surrounded by a set of fellow pilgrims.

### *Shared identity and collective self-realization in the Mela*

*Kalpwasīs* are easily distinguishable (e.g., by their living area in the Mela site and their routines) and differentiate themselves from others attending the Mela for only a few days. This provides a basis for a strong shared identity with *Kalpwasīs* seeing each other as part of a single group (Hopkins, et al., in press; PMMRG, 2007b). Moreover, when they participate in the rituals associated with being a *Kalpwasī* (e.g., listening to religious discourses given by saints, participating in singing and chanting, bathing in the Ganges) they

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do so with other Kalpwasis. So too, when engaged in mundane activities (collecting water, preparing food) they are surrounded by other Kalpwasis. All this means that one's individual experience is shaped by the behavior of others.

Enacting the Kalpwasi identity entails adopting a distinctive lifestyle to reach a particular level of spirituality. For example, one Kalpwasi ideal is that one does not think badly of others. However, if one is to enact this socially-prescribed ideal, it is important that co-present others do so too: obviously if others within earshot gossip, one's own ability to enact this identity-prescribed ideal is compromised. So too, if a Kalpwasi is to avoid the distractions of music, it is important that others do not play such music (Shankar et al, 2013).

Although there may be a basis for shared identity amongst Kalpwasis, this cannot be guaranteed. As studies of pilgrimage emphasize, it is erroneous to assume that all pilgrims necessarily share a common identity (Messerschmidt & Sharma, 1981). There can be factionalism (Eade & Sallnow, 2000) and competition for symbolic resources (Bilu, 1988). Moreover, mundane tensions arise over access to material resources (e.g. water) to subvert a sense of shared identity.

Accordingly, we can make no assumptions about the degree to which Kalpwasis attending the Mela experience either a shared identity with co-present others, or that they have a sense of being able to behaviorally enact the lifestyle specified for Kalpwasis. Both are empirical issues and we can expect individuals' experience of these to vary. However, we could predict that the more one has these experiences, the more participation would be psychologically meaningful and therefore consequential for post-event identity and behavior.

### *The study and hypotheses*

In order to investigate whether and how participation is consequential, we conducted a longitudinal questionnaire survey of a sample of Kalpwasis attending the 2011 Magh Mela

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and a sample of others who did not. We focused on two outcomes: i. participants' cognitive self-definition as Hindu, and, ii, participants' performance of Hindu religious practices. Participants completed questions concerning such issues before (Time 1: T1) and after the event (Time 3: T3). Data concerning Kalpwasis' experience of the event were obtained during the event itself (Time 2: T2) when we gathered data concerning Kalpwasis' perceptions of: i. a shared identification amongst Kalpwasis, and ii. being able to enact the ideals associated with the Kalpwasi identity (collective self-realization).

We predicted pre-Mela (T1) to post Mela (T3) increases in the Kalpwasis' identification strength and the performance of religious practices. No such increase was expected amongst the controls. With regards to explaining the effect of participation, we predicted between-individual differences in the degree to which Kalpwasis experienced a sense of shared identity and a sense of CSR, and predicted these would explain variability in the degree to which participation was consequential. Specifically, we expected higher levels of shared identity to allow greater collective-self-realization, resulting in stronger T3 identification and increased T3 religious practices. That is, we predicted that the relationship between shared identity and T3 identification strength and engagement in religious practices would be mediated by Kalpwasis' reports of the degree to which they were able to enact their Kalpwasis identity (CSR).

## METHOD

### *Sample*

Kalpwasis provided data at three time points (T1, T2, T3), Controls at two (T1, T3). The data reported here (available at <http://data-archive.ac.uk>) arise from those for whom we have T1 and T3 (and for the Kalpwasis sample, T2 data). 792 participants completed the pre-Mela (T1) survey (Kalpwasis = 604; Controls = 188). With attrition, 249 (31.44%) participants were lost giving an overall completion rate of 68.56%. Attrition was equivalent amongst

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Kalpwasīs (188: 31.13%) and Controls (61: 32.45%). Analyses (at T1) revealed no meaningful differences between our final sample and those lost through attrition. The final sample consisted of 543 Hindus living within 100-120 Kms from Allahabad. 416 attended the Mela (Kalpwasīs) and 127 comparable others did not (Controls).

Participants were recruited through local contacts in the rural areas surrounding Allahabad. Kalpwasīs and Controls were recruited in the same way, from the same locations. They were selected so as to be similar and Table 1 presents information on their characteristics (the caste categories are used by the Indian Government to differentiate between those who are relatively privileged (GC) and those who are less so (OBC). Other caste categories below OBC exist but were not represented in our sample). The Kalpwasī sample tended to be somewhat older and higher caste, and although similar in terms of their Hindu social identification, the Kalpwasīs performed more religious practices (the measurement of these variables is explained below).

----- Table 1 about here -----

As noted above, Kalpwasīs do not simply participate in one Mela, but commit to participate in 12. Accordingly, it was inevitable that our Kalpwasī sample would have attended several previous Melas ( $M = 10$ ) whereas the Controls would not. However, the critical point is that the Controls allow us to ensure any change in the Kalpwasīs is not due to social/contextual factors (e.g., a political event) occurring between the pre-Mela and post-Mela measurement points. As the social significance of a Hindu identity or the experience of the Mela itself may be affected by one's gender, age, caste, marital status and education (and we have small Kalpwasī-Control differences on some of these dimensions) our key analyses controlled for these socio-demographic characteristics.

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### *Measures*

Questionnaire items were developed through piloting in the previous year's Magh Mela. To ensure precision, items were translated and back-translated (English-Hindi-English) by two independent groups of translators. Differences between the translations were resolved through improving the terminology. Before the survey was administered, the scales were piloted to ensure clarity and intelligibility to participants of varying educational backgrounds.

Except where stated otherwise, all items were answered on culturally appropriate 5-point scales illustrated with drawings of five glasses containing increasing levels of water ranging from empty to full (Tewari, Khan, Hopkins, Srinivasan & Reicher, 2012). The responses were anchored: 1 = "Not at all"; 5 = "Completely" (which translates as "A lot"). Items for each measure are reported below. Responses were averaged to obtain scale scores.

#### *Outcome measures (T1 and T3)*

*Identification Strength.* Participants completed three items: "To what extent does being Hindu matter to you?"; "To what extent is being Hindu a key part of your life?"; "To what extent is being a Hindu central to your sense of who you are?" The reliability of the Identification Strength scale for each sample at each time was excellent (*Cronbach's alphas*: T1 Kalpwasis = .88; T3 Kalpwasis = .95; T1 Control = .89, T3 Control = .92). The overall means and standard deviations for this scale at T1 and T3 were: T1  $M = 4.73$ ,  $SD = .52$ ; T3  $M = 4.72$   $SD = .49$ .

*Religious Practices.* Participants completed three items: "In the last week, how often have you performed morning pujas (prayers)?"; "In the last week, how often have you performed evening pujas?"; "In the last week, how often have you read or chanted religious texts in your home?" For each item participants reported how many days over the last week they had engaged in such a practice (with 0 indicating none and every subsequent unit representing one day per week to a maximum of 7). Responses were averaged to obtain a

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scale score. Given these items refer to behaviors, the reliabilities of the scale were satisfactory (*Cronbach's alphas*: T1 Kalpwasis = .61; T3 Kalpwasis = .54; T1 Control = .61; T3 Control = .60), and, if anything, could make it more difficult to detect effects of participation. The overall means and standard deviations for this scale at T1 were  $M = 4.91$ ,  $SD = 2.23$ ; T3  $M = 5.21$ ,  $SD = 2.10$ .

### *Process measures (Kalpwasis at T2)*

*Shared Identity.* Kalpwasi participants completed five items introduced with the stem: "To what extent do you think that all Kalpwasis...". The items were: "...think of themselves as part of a single group?"; "...think of themselves as part of one large family?"; "...have a sense of 'we-ness' with other Kalpwasis?"; "...besides their differences, share the same identity?"; "...have a feeling of unity amongst each other?" Responses were averaged to obtain a scale score (*Chronbach's alpha* = .88,  $M = 4.54$ ,  $SD = .61$ ).

*Collective-Self-Realization (CSR).* Participants completed five items introduced with the stem: "In the period of Kalpwas, to what extent do you feel you are able to". The items included: "...fully overcome the restrictions of everyday life and live in accordance with your religious faith?"; "...fully live a simple life in accordance with religious teaching?"; "...completely ignore the everyday concerns of this world to concentrate on the spiritual?"; "...totally devote yourself to following religious scriptures?"; "...fully devote yourself to performing your religious rituals?" Responses were averaged to obtain a scale score (*Chronbach's alpha* = .86,  $M = 4.43$ ,  $SD = .59$ ).

### *Scale Properties*

We investigated the dimensionality of these four measures using Principal Axis Factoring (*Oblimin* rotation) which is particularly suitable when the measures are new. First, (using both Kalpwasis' and Controls' data together) we considered the two outcome

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variables. The same factor structure was found at T1 and at T3: the Strength of Identification items loaded on one factor (loadings .79 - .93; cross loading = .13 to .16), and the Religious Practice items on another (loadings = .55 to .69; cross-loadings = .04 to .16). Second, we considered the T2 process variables (Kalpwasis only). The Shared Identity items loaded on one factor (loadings .69 - .88; cross loading = .24 to .32) and the Collective Self-Realization items on another (loadings = .69 to .80; cross-loadings = .23 to .28).

In our third factor analysis (Kalpwasis data only) we explored whether the T2 process measures were different the T1 and T3 outcome measures. One analysis included the T1 outcome measures and the T2 process measures (see Table 2), another included the T3 outcome measures and the T2 process measures (see Table 3). The factor loading (Tables 2 and 3) confirm the dimensionality of these four measures: The process items measure different things from each other and measure different things from the outcome measures (whether at T1 or at T3).<sup>1</sup>

----- Tables 2 and 3 about here -----

### *Procedure*

The questionnaires were administered orally by a trained team of 10 Hindi-speaking field investigators and took approximately 30 minutes. The T1 survey was administered in participants' homes between 1<sup>st</sup> -15<sup>th</sup> December, 2010 (i.e., one month before the 2011 Magh Mela). The T2 survey was administered to the Kalpwasis while camped on the Ganges's floodplain between 26<sup>th</sup> of January and 9<sup>th</sup> of February, 2011 (i.e., over the height of the

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<sup>1</sup> This was confirmed in a Confirmatory Factor Analysis. When the two T2 process variables and the two T1 outcome measures were inspected, the four-factor model revealed a good fit ( $\chi^2 = (98) 360.31$ ,  $p < .001$ ,  $\chi^2/df = 3.68$ , CFI = .92, RMSEA = .08 (90% CI: .072 - .089), SRMR = .05). Also, when the two T2 process variables and the two T3 outcome measures were inspected, the four factor model revealed a good fit ( $\chi^2 = (98) 387.42$ ,  $p < .001$ ,  $\chi^2/df = 3.95$ , CFI = .92; RMSEA = .08 (90% CI: .076 - .093), SRMR = .05).

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Mela). The T3 survey was administered in participants' homes, between 3<sup>rd</sup> - 15<sup>th</sup> March, 2011 (i.e., one month after the Mela). The time difference between T1 and T2 ranged between 49-68 days ( $M = 56$  days;  $SD = 4$  days), between T2 and T3 it ranged 24-43 days ( $M = 34$  days;  $SD = 4$  days), and between T1 and T3 it ranged 83-99 days ( $M = 90$  days;  $SD = 3$  days). An independent samples  $t$ -test revealed no difference between the Kalpwasi and Control sub-samples in the number of days between T1 and T3 ( $t(541) = 1.23$ ,  $p = .20$ , *Cohen's d* = .11).

## RESULTS

First, (employing ANOVAs) we consider the change (T1 to T3) in the Kalpwasi's Identification Strength and Religious Practices relative to that for the Controls. Second, (employing regression) we examine the Kalpwasi's data to explore how the T2 process variables (Shared Identity and CSR) predicted T3 Identification Strength and Religious Practice.

### *Participation outcomes (ANOVAs)*

As we had different numbers of Kalpwasi and Controls we checked that the within-group covariance matrices in our ANOVAs were equal using Box's M test. All tests revealed statistics showing that the assumptions for the ANOVAs we report were met (as this test is highly sensitive the recommended criterion is  $p < .001$ , and we obtained values ranging from .003 and .016).

*Identification Strength.* At T1, 387 (70.30%) responded at ceiling (i.e., 5) on all three items assessing Identification Strength. There was a trend for a larger number of the Kalpwasi sample to be at ceiling (305 out of 416, or 73.30%) compared to the Controls (82 out of 127, or 64.60%),  $\chi^2 = 3.64$ ,  $p = .056$ ). As those at ceiling at T1 cannot possibly increase their identification on our measures, we divided our sample into those already at

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ceiling and those who were not. For information, Table 4 presents data concerning the characteristics of those not at ceiling (Kalpwasis vs. Controls). This shows the Kalpwasi sample tended to contain more females and report more Religious Practices.

----- Table 4 about here -----

Identification Strength was investigated in a 2 (T1 Identification: Ceiling/Not at Ceiling) X 2 (Condition: Kalpwasis/Controls) X 2 (Time: T1/T3) Mixed Factorial ANCOVA with Time as the repeated measure (and age, gender, caste, marital- and educational-status as covariates to control for any socio-demographic differences across the samples). This revealed a three-way interaction,  $F(1, 532) = 9.73, p = .002, \eta_p^2 = .02$  which was decomposed through two separate 2 (Condition: Kalpwasis/Controls) X 2 (Time: T1/T3) Mixed Factorial ANCOVAs (with the same covariates). One included those responding at ceiling at T1 ( $n = 387$ ; Kalpwasis:  $n = 305$ ; Controls:  $n = 82$ ), and the other, those who had not ( $n = 156$ ; Kalpwasis:  $n = 111$ ; Controls:  $n = 45$ ). For both we report Estimated Marginal Means (EMMs) and Standard Errors (SEs).

Amongst those at ceiling (i.e., their T1 scores were 5) both main effects and the interaction were non-significant (all effects  $p \geq .19$ : for information the Kalpwasis T3  $EMM = 4.82, SE = .02$ , and the Controls T3  $EMM = 4.76, SE = .05$ ). Amongst those *not* at ceiling, the main effect of Time was non-significant,  $F(1, 149) = .26, p = .61, \eta_p^2 = .00$ , that of condition marginal,  $F(1, 149) = 3.77, p = .054, \eta_p^2 = .03$ , and the interaction was significant,  $F(1, 149) = 9.33, p = .003, \eta_p^2 = .06$ . This interaction (reporting Estimated Marginal Means and Standard Errors) is plotted in Figure 1.

----- Figure 1 about here -----

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Pairwise comparisons confirmed that amongst the Kalpwasis, identification increased from T1 ( $EMM = 4.10, SE = .05$ ) to T3 ( $EMM = 4.61, SE = .06$ ),  $F(1, 110) = 65.76, p < .001, \eta_p^2 = .37$ . For Controls this difference was non-significant ( $EMM = 4.10, SE = .08$ ; T3:  $EMM = 4.25, SE = .09$ ),  $F(1, 44) = 1.31, p = .26, \eta_p^2 = .03$ . Furthermore, whereas at T1 there was no Kalpwasi/Control difference,  $F(1, 149) = .89, p = .35$ , at T3 the Kalpwasis reported stronger identification than the Controls,  $F(1, 149) = 11.74, p = .001, \eta_p^2 = .07$ .

*Religious Practices.* A 2 (Condition: Kalpwasis/Controls) X 2 (Time: T1/T3) Mixed Factorial ANCOVA (with Time as the repeated measures factor, and the same covariates as above) showed main effects of Time  $F(1, 534) = 13.87, p < .001, \eta_p^2 = .03$  and Condition (Kalpwasis vs Control),  $F(1, 534) = 31.44, p < .001, \eta_p^2 = .06$ . However, most importantly, the interaction was significant,  $F(1, 534) = 9.15, p = .003, \eta_p^2 = .02$  (see Figure 2).

----- Figure 2 about here -----

Pairwise comparisons confirmed that amongst Kalpwasis, Religious Practice frequency increased from T1 ( $EMM = 5.07, SE = .05$ ) to T3 ( $EMM = 5.51, SE = .19$ ),  $F(1, 415) = 20.13, p < .001, \eta_p^2 = .05$ . Amongst Controls there was no such increase (T1:  $EMM = 4.38, SE = .19$ ; T3:  $EMM = 4.19, SE = .18$ ),  $F(1, 126) = .44, p = .51, \eta_p^2 = .00$ . Analyses also showed Kalpwasis enacted more Religious Practices than Controls at both T1,  $F(1, 540) = 10.50, p = .001, \eta_p^2 = .02$ , and T3,  $F(1, 540) = 43.17, p < .001, \eta_p^2 = .08$ .<sup>2</sup>

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<sup>2</sup> To check if the interaction was affected by scores on the T1 Identity Strength measure we repeated this 2 (Condition: Kalpwasis/Controls) X 2 (Time: T1/T3) ANCOVA with Identity Strength as a third factor (Ceiling/Not at Ceiling). This showed no evidence of a three-way interaction ( $F(1, 532) = .01, p = .76, \eta_p^2 = .00$ ) which implies that whether participants were at ceiling or not on T1 Identity Strength was irrelevant for understanding the T1 to T3 increase in Religious Practices amongst the Kalpwasis and Controls.

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Thus far, we have clear evidence that participating in this collective event was consequential for both outcome measures. Moreover, we confirmed the robustness of these effects through repeating these ANOVAs and the between-subjects analyses at T1 and T3 without the socio-demographic covariates. For both outcome measures the results were unchanged. We also confirmed that the between-subjects effects were not affected by any inequalities in variance between the Kalpwasis and Controls.

### *Participation processes (regressions)*

Next, we analyzed the mechanisms through which participation impacted upon the Kalpwasis with a hierarchical regression in which the T2 process variables (Shared Identity and Collective Self-Realization) were entered as predictors of the T3 outcome variables (i.e., Identification Strength, Religious Practices). Each analysis controlled for participants' T1 scores on the relevant outcome measure and their socio-demographic characteristics (age, gender, caste and marital- and education-status). The order of variable entry was as follows: Step 1, level on outcome measure at T1; Step 2, age, gender, caste and marital-status (being female, lower caste, and widowed were coded zero); Step 3, education-status (illiterate was coded zero); Step 4, T2 Shared Identity; and Step 5, T2 Collective Self-Realization (CSR). In conducting these analyses we attended to the potential issue of multi-collinearity amongst our measures through obtaining the *Variance Inflation Factor* (VIF) which measures how much the variance of an estimated regression coefficient is increased because of multi-collinearity (values lower than 5 are desirable: O'Brien, 2007). The VIF values (included in Tables 5 and 6) were all perfectly acceptable.

*Identification Strength.* In-keeping with our earlier analysis we focused on those Kalpwasis whose T1 Identification Strength was not at ceiling ( $n = 111$ ). Table 5 presents the results. The adjusted  $R^2$  values were non-significant at every step but the last one where the

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model explains 8% of the variance in T3 Identification Strength. Similarly, the  $R^2$  change value was only significant in the fifth and final step of the model indicating that the effect of CSR explained a significant proportion of variance in T3 Identification Strength.

We then investigated whether Shared Identification with other Kalpwasis in the Mela had an indirect effect on T3 Identification Strength. This involved a bootstrapping procedure (Preacher & Hayes's 2008) in which Shared Identity was entered as the *IV*, T3 Identification Strength as the *DV* and CSR as the mediating variable (with T1 Identification Strength and the socio-demographic variables as covariates). The predictor variables were standardized to avoid multi-collinearity (Aiken & West, 1991). This analysis confirmed that Shared Identity predicted CSR ( $\beta = .33, p < .001$ ) and had an indirect effect ( $\beta = .??, p = ???$ ) on T3 Identification Strength *via* CSR (the bias-corrected and accelerated bootstrapped 95% confidence intervals were as follows: *Lower CI* = .0066; *Upper CI* = .1000). We then repeated these analyses using non-standardised measures. The results were unchanged. Moreover, we confirmed the model through testing an alternative in which we reversed the relationship between Shared Identity and CSR in predicting T3 Identification Strength. This alternative was not supported (95% *Lower CI* = -.0503; *Upper CI* = .0266). Accordingly our data support the argument that the effect of Shared Identity on T3 Identification Strength was indirect *via* CSR.

**Comment [NH1]:** Sammyh... Could you please provide the values for this? Cheers!

----- Insert Table 5 about here -----

These data therefore show that after taking into account T1 Identification Strength and the socio-demographic variables, the degree to which participants reported a sense of Shared Identity with others at the Mela and felt able to realize their collective identity in the Mela predicted a significant (albeit modest) proportion of Kalpwasis' T3 Identification Strength as

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a Hindu. Moreover, it is clear from the analysis of indirect effects that Shared Identity had its effect on T3 Identification Strength *via* CSR.<sup>3</sup>

*Religious Practices.* The Kalpwasis' T3 performance of religious practices was investigated in a similar manner. Table 6 presents the results of the hierarchical regression analysis (the order of variable entry was as above). The adjusted  $R^2$  values were significant at each step, with the model as a whole explaining 33% of the variance in T3 Religious Practices. The  $R^2$  change values were significant at all steps except the third and fourth which indicates that education and Shared Identity do not explain a significant proportion of variance in the model. T1 Religious Practices predicted T3 Religious Practices. Likewise age, gender and marital-status were significant at every step, with younger, male and widowed participants engaging in more T3 Religious Practices than older, female and married participants.

The fifth and final step in which CSR was introduced shows this process variable explained a significant proportion of variance in T3 Religious Practices, over and above the effect of T1 Religious Practices and the effects of the socio-demographic variables.

--- Insert Table 6 about here ---

Again we investigated if Shared Identity had an indirect effect on T3 Religious Practices *via* CSR through a bootstrapping procedure in which the predictor variables were standardized with the level of T1 Religious Practices (and the socio-demographic variables)

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<sup>3</sup> We repeated this analysis for the full Kalpwasi sample ( $n = 416$ ). The results were replicated: Bootstrapping confirmed an indirect effect of Shared Identity ( $\beta = .??, p = ????$ ) on T3 Identification Strength *via* CSR (bias-corrected and accelerated bootstrapped 95% confidence intervals: *Lower CI* = .0117; *Upper CI* = .0440). Again, a model reversing the relationship between Shared Identity and CSR in predicting T3 Identification Strength received no support (95% *Lower CI* = -.0020; *Upper CI* = .0208).

**Comment [NH2]:** Sammyh could you please provide the data for footnote 3?

( $\beta = .??, p = ????$ )

Thanks.....

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entered as covariates. The results showed Shared Identity predicted CSR ( $\beta = .33, p < .001$ ) and the bias-corrected and accelerated bootstrapped 95% confidence intervals (*Lower CI* = .0027; *Upper CI* = .1027) indicated an indirect effect ( $\beta = .??, p = ???$ ) of Shared Identity upon T3 Religious Practices *via* CSR. We also repeated these analyses using non-standardised measures. Again, the results were unchanged. As before, we tested an alternative model in which CSR had an indirect effect on T3 Religious Practices through Shared Identity. Again, the results confirmed this was not so (95% *Lower CI* = -.0473; *Upper CI* = .0515).

**Comment [NH3]:** Sammyh... Could you please provide the values for this? Cheers!

## DISCUSSION

Our data provide longitudinal evidence that participation in a collective event impacted upon participants' social identification and behavior. Amongst those whose pre-Mela level of identification as a Hindu was not at ceiling, we found a pre- to post-event increase in Identification Strength amongst the Kalpwasis that was absent amongst the Controls. Kalpwasis (but not Controls) also reported performing more Religious Practices after the Mela than before.

In evaluating these findings it is important to acknowledge that field research brings its own problems. Obviously, random allocation to condition is impossible. Thus, while the two samples were similar in their demographic characteristics, there were some differences between them. Unsurprisingly, the Kalpwasis reported a higher level of religious practices than controls at T1, probably reflecting the fact that they had participated in more Melas. Nonetheless, the key point is that participation in the Mela still resulted in increased performance of such practices as well as increased levels of Hindu identification. So, while we do not pretend to have a perfect match between Kalpwasis and Controls, it is hard to dismiss our findings as a consequence of any differences between them. Indeed, one could

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add that if anything the Kalpwasis' prior experience of the Mela should dilute any effect of participating in the Mela we study because such prior participation could be expected to decrease the effects of any further participation. This makes any effect less likely and the fact we still obtain significant effects of participation is noteworthy. What is more, any issues raised by non-random allocation to condition are offset by the ecological validity of our data, gathered before during and after an event of considerable importance in people's lives.

We would also stress that the inclusion of a control group enriches our design and allows us to rule out alternative accounts of our effect (e.g. political events, effects of seasonal variation, etc.). Moreover, the fact our T2 process variables help explain the effects obtained amongst the Kalpwasis adds weight to the argument that the effects are indeed related to their experience of participation. We show that the more participants experienced a shared identity amongst Kalpwasis, the more they believed they were able to realize the injunctions associated with their Kalpwasi identity (CSR), and the greater the effect of participation. Moreover, the directionality of the process by which these changes arise is clear. Shared identity had an indirect effect on the outcomes *via* its impact on CSR. Such findings confirm our predictions about both the outcomes of collective participation and about the processes whereby they come about.

However, it is important to clarify and qualify our claims. First, it should be made clear that any generalization made from this study must be at the level of process rather than outcomes. We believe there are underlying processes common to collective participation in general and that the degree to which these obtain in any event is an empirical question. Certainly, we do not propose that every participant in every collective event will be affected. Much will depend on participants' initial level of identification and if participants are at ceiling (as some were here) the effects of participation may be limited. However, even for those who were not at ceiling participation may not be consequential. As our analyses show,

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a key factor is the degree to which those co-present at the event conceived of themselves as sharing a social identity and feel able to realize their collective identity. This may be more easily achieved in some events than others. For example, there may be rituals (sometimes extreme: Xygalatas et al., 2013) that involve people acting in synchrony with others (e.g., chanting, clapping etc.) which may strengthen the bonds between participants (Reddish, Fischer, & Bulbulia, 2013). Also, some events may be more contested than others (giving rise to conflict and factionalism). Moreover, some participants may find their presence questioned such that although they identify with others they may feel marginalised and unable to enact their identification (Pehrson, Stevenson, Muldoon, & Reicher, 2013), and such experiences may reduce participants' identification strength (indeed, when interpreting our own data it is appropriate to note that we cannot assume that an overall increase in the Kalpwasis' identification strength meant that everyone increased their identification).

Also, although the processes involved in different events may be similar, the actual behaviors involved will differ from group to group as a function of the content of identity. Thus, CSR (which relates to the norms and values of the group) will take different forms in different collectivities. In demonstrations, CSR may involve behavior that imposes the crowd's will on an antagonistic outgroup (e.g., the police). Typically, this involves obstruction and sometimes, violence (Drury & Reicher, 2005). In the Mela, the identity and hence the behaviors relevant to CSR are different (involving a focus on spirituality).

Second, shared identity and CSR are unlikely to be the only factors involved. The effects attributable to our process variables are modest, but as the process data were obtained during the event itself, and the outcomes were obtained approximately one month later (and in a very different context – back in their home), this is understandable. Yet, it is also clear that future studies should investigate other candidate processes. For instance, attending a

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pilgrimage may result in an increase in one's status in one's home village which itself has consequences for one's self-definition.

Third, we need to consider the extent to which a study of religious participation in rural north India can be used to make general claims about collective participation. As concerns the religious dimension, we should remember that, while religious identity may be comparatively understudied in political psychology (certainly compared to ethnic and national identities) it is of enormous social and political significance in everyday life not only in India (Khan & Sen, 2009; Puniyani, 2003) but also in the west (Graham & Haidt, 2010; Ysseldyk, Matheson & Anisman, 2010). Furthermore, it is important to remember the long tradition (dating back to Durkheim, 1912/1995) of studying religious masses as a means of addressing intense phenomena that are fundamental to all collective life (Olaveson, 2001).

This returns us to the point that any generalization must be at the level of process rather than behavioral outcome. The incidence of shared identity and CSR and also the meaning of CSR will take unique forms in religious gatherings. But there is little reason to think that a religious gathering is poorly suited as a site in which to investigate the argument that identification increases as a function of shared identity and CSR in collective gatherings. The same can be said concerning the Indian dimension of our work. This is a different demographic to that normally studied and the meanings associated with Hindu identity differ from those associated with, say, Christian identity. However, it is a strength of our research that we address the value of a body of theory (the social identity approach) developed and tested primarily in urbanized Western settings amongst a rural Indian population - as long, that is, that we take into account the local cultural forms taken by psychological processes when drawing any lessons from the research (Hopkins & Reicher, 2011).

Here, there are three such lessons. First, for the first time, we have, quantitative data from a longitudinal study using comparable controls, that participation in collective events

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can increase social identification and identity-related behavior: crowds can indeed revivify social identities. Second, we show how the sense of connection to a concrete set of co-present others (Shared Identity) impacts the sense of belonging to an abstract ‘imagined community’ (Identity Strength) through the ways in which one becomes able to transform identity from a set of prescriptions into real lived experiences (CSR). Third, participation in collective events can help constitute who we are as social beings. It thereby shapes the solidarities and the divisions that make up both psychological and political realities. This implies that much may be lost by regarding crowds as merely marginal and exotic phenomena that occasionally erupt into ordinary life. Conversely, much may be gained through political psychologists bringing the analysis of collective events to the center of our studies.

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