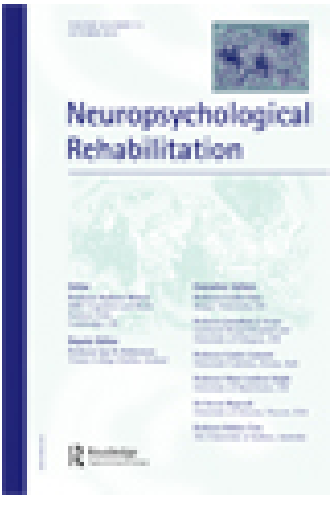
This article was downloaded by: [185.32.152.107]
On: 15 January 2015, At: 08:04
Publisher: Routledge
Informa Ltd Registered in England and Wales Registered Number: 1072954
Registered office: Mortimer House, 37-41 Mortimer Street, London W1T 3JH, UK



CrossMark
Click for updates

Neuropsychological Rehabilitation: An International Journal
Publication details, including instructions for authors and subscription information:
http://www.tandfonline.com/loi/pnrh20

Affiliative and "self-as-doer" identities: Relationships between social identity, social support, and emotional status amongst survivors of acquired brain injury (ABI)

R. Stephen Walsh[abc], Orla T. Muldoon[ab], Stephen Gallagher[ab] & Donal G. Fortune[ac]

[a] Department of Psychology, University of Limerick, Limerick, Ireland

[b] Centre for Social Issues Research, University of Limerick, Limerick, Ireland

[c] ABI Ireland, South West Region, Ireland

Published online: 17 Dec 2014.

To cite this article: R. Stephen Walsh, Orla T. Muldoon, Stephen Gallagher & Donal G. Fortune (2014): Affiliative and "self-as-doer" identities: Relationships between social identity, social support, and emotional status amongst survivors of acquired brain injury (ABI), Neuropsychological Rehabilitation: An International Journal, DOI: 10.1080/09602011.2014.993658

To link to this article: http://dx.doi.org/10.1080/09602011.2014.993658

PLEASE SCROLL DOWN FOR ARTICLE

Taylor & Francis makes every effort to ensure the accuracy of all the information (the "Content") contained in the publications on our platform.

However, Taylor & Francis, our agents, and our licensors make no representations or warranties whatsoever as to the accuracy, completeness, or suitability for any purpose of the Content. Any opinions and views expressed in this publication are the opinions and views of the authors, and are not the views of or endorsed by Taylor & Francis. The accuracy of the Content should not be relied upon and should be independently verified with primary sources of information. Taylor and Francis shall not be liable for any losses, actions, claims, proceedings, demands, costs, expenses, damages, and other liabilities whatsoever or howsoever caused arising directly or indirectly in connection with, in relation to or arising out of the use of the Content.

This article may be used for research, teaching, and private study purposes. Any substantial or systematic reproduction, redistribution, reselling, loan, sub-licensing, systematic supply, or distribution in any form to anyone is expressly forbidden. Terms & Conditions of access and use can be found at http://www.tandfonline.com/page/terms-and-conditions

Downloaded by [185.32.152.107] at 08:04 15 January 2015

Neuropsychological Rehabilitation, 2014
http://dx.doi.org/10.1080/09602011.2014.993658

Routledge
Taylor & Francis Group

Affiliative and "self-as-doer" identities: Relationships between social identity, social support, and emotional status amongst survivors of acquired brain injury (ABI)

R. Stephen Walsh[1,2,3], Orla T. Muldoon[1,2], Stephen Gallagher[1,2], and Donal G. Fortune[1,3]

[1]Department of Psychology, University of Limerick, Limerick, Ireland
[2]Centre for Social Issues Research, University of Limerick, Limerick, Ireland
[3]ABI Ireland, South West Region, Ireland

(*Received 11 June 2014; accepted 28 November 2014*)

Social support is an important factor in rehabilitation following acquired brain injury (ABI). Research indicates that social identity makes social support possible and that social identity is made possible by social support. In order to further investigate the reciprocity between social identity and social support, the present research applied the concepts of affiliative and "self-as-doer" identities to an analysis of relationships between social identity, social support, and emotional status amongst a cohort of 53 adult survivors of ABI engaged in post-acute community neurorehabilitation. Path analysis was used to test a hypothesised mediated model whereby affiliative identities have a significant indirect relationship with emotional status via social support and self-as-doer identification. Results support the hypothesised model. Evidence supports an "upward spiral" between social identity and social support such that affiliative identity makes social support possible and social support drives self-as-doer identity. Our discussion emphasises the importance of identity characteristics to social support, and to emotional status, for those living with ABI.

Keywords: Brain injury; Social identity; Social support; Depression; Anxiety.

Requests for reprints should be addressed to R. Stephen Walsh, University of Limerick, Castletroy, Co. Limerick. Ireland. E-mail: stephenwals@gmail.com

This research was supported by the Irish Research Council.

© 2014 Taylor & Francis

Downloaded by [185.32.152.107] at 08:04 15 January 2015

INTRODUCTION

As a result of acquired brain injury (ABI), identity often becomes derailed, and identity loss following ABI is commonplace (Broks, 2003; Nochi, 1998). However, lost identity is not the full story. In the life-course of ABI survivors, selves are reconstructed post-injury and the self-narrative continues (Douglas, 2013). There is a growing recognition of the importance of social factors to individual well-being following brain injury. One such factor is social identity (Haslam et al., 2008); another is social support (Douglas, 2013). The purpose of the present study was to investigate and attempt to progress understanding of reciprocal processes between social identity, social support and emotional status amongst a cohort of individuals who have survived ABI.

Identity can be understood as that active and dynamic understanding of self which people derive from interactions between themselves and their environments (Simon, 2004, p.45). Tajfel (1982) defined social identity as the sense of self deriving from significant group memberships. The sense of self we develop from membership of social groups, from our families and work colleagues, for example, is crucial in the context of a stressor like ABI because, as Turner (1982, p.21) argued, "social identity makes group behaviour possible". Social identity provides a basis for mutual social influence (Turner, 1991), and shared social identity facilitates a range of positive social interactions and various other acts of solidarity (Haslam, Jetten, Postmes, & Haslam, 2009). Research shows that difficulties around identity such as self-discrepancy are associated with poor adjustment following ABI (e.g., Cantor et al., 2005). In contrast, continuity of identity following ABI may positively impact well-being because it allows survivors to maintain a consistent self-narrative (Sani, Bowe, & Herrera, 2008) tethering survivors to their pasts and facilitating functioning in the present (Jones, Jetten, Haslam, & Williams, 2012). Consistent with this understanding, Haslam et al. (2008) found that identity continuity across time predicts the degree to which individuals adjust following stroke.

In a landmark paper, Haslam et al. (2009) identified the investigation of relationships between social identities, health and well-being as an important applied field of inquiry for contemporary social psychology. The idea of "social cure" was further developed by Jetten, Haslam, and Haslam (2012) who advocated the social identity approach as a perspective particularly well suited to application in the study of associations between social relationships, group memberships, health and well-being; and people living with ABI are no exception (e.g., Douglas, 2012). In the aftermath of ABI, individuals often experience stress and identity loss (Nochi 1998), a likely consequence of failing to meet the obligations and expectations associated with their previous social and professional roles (Ponsford, 2013). Moreover, given that

Downloaded by [185.32.152.107] at 08:04 15 January 2015

individuals with ABI experience identity loss, research showing that they frequently report fewer social interactions, low social support and poor emotional status is hardly surprising (Dahlberg et al., 2006). It is also worth noting that the positive influence of social support for the emotional status of people with brain injury is well-documented (e.g., Douglas, 2012), implying that research examining the social identity factors associated with social support are clearly warranted.

Social support is a term with diverse meanings, and consequently, it is a term frequently subjected to criticism regarding how it might best be defined and measured (Uchino, 2004). In an influential review, Cohen and Wills (1985) proposed that a distinction be drawn between structural and functional social support. Structural social support pertains to that social support resulting from social ties, such as marital status and number of relationships. Functional social support looks to the degree that interpersonal relationships, such as provision of affection, generating feelings of belongingness, or provision of material aid, generate social support (Cohen, 1988).

A second important distinction regarding social support is that between main effects and buffering effects. The main effect model suggests that social resources have a beneficial effect regardless of whether or not people are under stress. In contrast, the buffering model proposes that social support is only related to well-being for those under stress (Cohen, 1988). In an extensive review of the literature, Thoits (1995) reported that although structural measures of social support relate positively to well-being, they do not buffer the effects of chronic or stressful life events. A large body of evidence suggests that, actually, received social support and perceived social support are only mildly related (Kaul & Lakey, 2003). Furthermore, evidence indicates that received social support is less consequential in terms of health and well-being than perceived social support (Sani, 2012). Hence, the research reported herein focuses on the aspect of perceived functional social support.

Despite recognition of the importance of social identity and social support for psychological well-being in ABI survivors, at present, the precise natures of these relationships remain unclear. It is widely accepted that social identity, the sense of self deriving from significant group memberships (Tajfel, 1978; Tajfel & Turner, 1979), makes social support possible but it has also been reported that social support enables social identity. Haslam, O'Brien, Jetten, Vormedal, and Penna (2005) found that social support mediated the relationship between social identification and psychological well-being in groups experiencing extreme stress, implying that these two processes are working together to improve well-being. Jetten, Haslam, Iyer, and Haslam (2010, p.6) emphasised the distinction between social identity and social support and outlined the relationship between them as one where social identity "makes social support possible". For example, research has found that a

Downloaded by [185.32.152.107] at 08:04 15 January 2015

sense of shared social identity with similar others (in-group members) enhanced the effectiveness of social support information to reduce stress reactions compared to those without this shared social identity (out-group members) (Gallagher, Meaney, & Muldoon, in press; Haslam et al., 2005). In the context of ABI, survivors who appear to redefine themselves and develop new identities are more likely to develop new social relationships and have better adjustment compared to those who struggle with their identities (Ellis-Hill & Horn, 2000). These studies suggest that social identities facilitate social support.

In contrast to the finding that social identity makes social support possible, Gleibs, Haslam, Haslam, and Jones (2011) found that social support contributes to the construction of social identity. This is consistent with Haslam et al. (2005, p.367) who suggested an "upward spiral" involving social identity and social support whereby social support also increases social identification. Furthermore, recently, Wakefield and colleagues found that social identity was made possible through social support groups for people with multiple sclerosis. Moreover, a shared sense of identity with support group members was associated with improved psychological well-being (Wakefield, Bickley, & Sani, 2013). Taken together then, these findings suggest that the two variables act reciprocally – social identity driving social support and social support driving social identity.

One possible explanation as to how social support and social identity might work reciprocally may lie in the nature of the social identity under consideration. It might be that not all social identities are the same and that interrogating different types of identity could facilitate progression towards understanding of this apparent reciprocity between social identity and social support. Billig (1995) identified a banal aspect of social identity whereby identity is often unexpressed and unrecognised but nevertheless present and available for mobilisation if and when required. These "background" identities hinge on feelings of belongingness. They are the groups to which we affiliate, the groups we feel we belong to that are understood as making us who we are. Family and nation are perhaps two obvious examples. These types of belonging identities are referred to herein as affiliative identities. Affiliative identities are generally, as Stevenson and Muldoon (2010, p.584) point out in the context of Billig's banal identity, "the assumed backdrop to everyday life...often unexpressed but always ready to be mobilised". Indeed, for much of the time it is conceivable that the families, nations and groups that we affiliate to do not even register in our conscious awareness. But they are there, just beneath the surface, ready to become activated as soon as triggered by social or contextual factors. One such potential trigger is stress, another is ill health. Both triggers come together in ABI.

Turning next to a second type of social identity, and in accordance with social identity theorising, Deaux, Reid, Mizrahi, and Ethier (1995) state that

Downloaded by [185.32.152.107] at 08:04 15 January 2015

membership of social groups provides individuals with an important basis for self-definition. This observation has also been made in the literature of other disciplines including that of social neuroscience where the self is understood as a conduit through which "who we are" is constructed via "the social groups we are immersed in" (Lieberman, 2013, p.191). In concluding that social identities are heterogeneous rather than homogenous, one of the distinctions drawn by Deaux et al. (1995) is that between identities founded upon relationships and identities associated with occupation. The second type of social identity considered here has been described by Houser-Marko and Sheldon (2006) as "the self-as-doer' construct. This construct comprises identities that are actively constructed in everyday ways and which are actively claimed (Stevenson & Muldoon, 2010). Ashmore, Deaux, and McLauhlin-Volpe (2004) distinguish between ascribed identities, such as gender, and achieved identities, such as occupation. Ascribed identities include those types of affiliative identities detailed in the previous paragraph whereas achieved identities include those "self-as-doer" type identities identified by Houser-Marko and Sheldon (2006). This constructive component of identity is strategically deployed in the manner suggested by self-categorisation theory (Reicher & Hopkins, 2004). It is a work in progress, a project ongoing in the sphere of conscious awareness and day-to-day discourse. Activity is the fulcrum of self-as-doer identities. As such, activity carries with it the potential for considerable utility in the setting of neuropsychological rehabilitation. Taking part in facilitated and supported activities (for example, men's sheds and painting groups) might provide a basis for identity construction amongst a cohort for whom identity loss is recognised as commonplace. Wilson, Gracey, Malley, Bateman, and Evans (2009), refer to meaningful functional activity as those activities which provide the basis for social participation. Meaning making is central to this aspect. It is clear that from several theoretical points of view, ranging from the social constructionist (e.g., Butler, 2003) to the neuropsychological (Wilson et al., 2009), to the social identity approach (Klein, Spears, & Reicher, 2007), to occupational therapy (Hammell, 2004; Wilcock, 1998), that identity is presented as intimately intertwined with activity or "doing". Some identities require performance, Klein et al. (2007) for example, stated that in order to be sustainable, identities must be capable of expression. They also stated that identities generally require recognition by others in order to be viable. Self-as-doer identities hinge on performance.

Gracey et al. (2008) suggest that, in the specific context of emotional adjustment following ABI, concentrating on questions relating to those activities that hold meaning for individuals might be helpful. This raises the question, in the context of ABI, do affiliative and self-as-doer identities have the same potential with regard to emotional status?

Downloaded by [185.32.152.107] at 08:04 15 January 2015

We set out to test a hypothetical model, which suggests that affiliative identities generate social support which facilitates participation in activities that provide a basis for self-as-doer identities which in turn impact positively upon emotional status, by carrying out path analysis. Following the guidance of Hayes (2013) we also investigate an alternative model to determine whether self-as-doer identities drive social support and in turn affiliative identities. This approach (i.e., testing alternative models) cannot establish with absolute certainty the direction of causal flow but it can help establish an argument against a competing causal order as a plausible account, thereby ruling out this possibility as an alternative explanation.

Downloaded by [185.32.152.107] at 08:04 15 January 2015

METHOD

Participants

Fifty-three adult survivors (39 men and 14 women) of brain injury, engaged in post-acute community neurorehabilitation with a national brain injury service provider in Ireland, took part in this study. Average age was 44 years ($SD = 12.32$). The youngest participant was aged 20 years and the oldest was 65 years. Average time since injury was 7 years ($SD = 7.54$). Twenty-two participants had an ABI as a result of stroke. The other 31 participants had an ABI as a result of road traffic accidents ($n = 15$), falls ($n = 7$), tumour ($n = 4$), assault ($n = 2$), hypoxia ($n = 2$) and unknown ($n = 1$). Glasgow Coma Scale (GCS) scores were only available for 25 of the 53 participants. GCS scores indicated that 6 of these participants had mild injuries (GCS scores of 13–15), 2 had moderate to severe injuries (GCS scores of 9–12) and 17 had severe injuries (GCS scores < 8). Because of the low proportion, low numbers, and uneven distribution of GCS scores, severity was not included in further analysis. Inclusion criteria were: people currently accessing services from the national service provider; aged 18 to 65; and English as a first language. Exclusion criteria were: people with a level of aphasia or comprehension difficulties that would prevent the successful completion of questionnaires; and the presence of a major medical illness unconnected to the ABI (e.g., dementia). All participants gave informed consent and the study was approved prior to data collection by the relevant local research ethics committee.

Measures

Affiliative identity: Self-as-doer identity. Ashmore et al. (2004) emphasise the importance of self-categorisation and suggest that researchers should allow respondents the opportunity to answer open-ended questions regarding group memberships. The approach advocated by Ashmore et al. (2004, p.86) also

allows researchers to ensure that participants are referring to the phenomenologically "correct" social category in their responses. As such, self-categorised affiliative identity was established with the question, "Which group of people you belong to is most important to who you are?" Self-categorised self-as-doer identity was accessed via the question, "Which of the things you do is most important to who you are?" A full list of affiliative and self as doer identities elicited from participants is included in Appendix 1.

Identity strength was then established using items from Leach et al.'s (2008) valid and reliable multicomponent model of in-group identification. An advantage of this model is that it facilitates both unidimensional and fine grained analysis of in-group identification (Leach et al., 2008). The identity measure employed comprised a 13-item questionnaire measuring group level self-investment (solidarity; satisfaction and centrality) and group level self-definition (individual self-stereotyping; in-group homogeneity). In a slight alteration from the original 14-item questionnaire, the original question 7, "Being [in-group] gives me a good feeling", was omitted because it closely resembled the included item, "It is pleasant to be [in-group]" and had the potential to cause confusion with ABI participants. Individual item scores were obtained using a 7-point Likert scale (1 = Agree; 7 = Disagree) as per Leach, Rodriguez Mosquera, Vliek, and Hirt (2010), and in line with Leach et al. (2008) the five subscales of the multicomponent model of in-group identification were summed to provide a measure of identity strength. This procedure was applied to both self-as-doer and affiliative identity. The identity questionnaire first measured self-as-doer identity and then affiliative identity. Sample items include, "I feel a bond with..."; "I often think about the fact that I am...". Cronbach's α for self-as-doer identity = .85 and for affiliative identity = .83. Identity scores were reversed in order that higher scores would equate to stronger identity.

Social support. Social support was measured using the Medical Outcomes Study social support survey (Sherbourne & Stewart, 1991). This 19-item scale measures perceived functional social support and includes measures of emotional/informational support (e.g., someone to listen to you when you need to talk); tangible support (e.g., someone to help you if you were confined to bed), affectionate support (e.g., someone who hugs you); and positive social interaction (e.g., someone to get together with for relaxation). The questionnaire has a 5-point Likert-type format with higher scores indicating higher social support and lower score indicating an absence of perceived social support. The total score allows construction of an overall functional support index. The authors report that the scale is suitable for application in the context of chronic conditions. The authors further report that the support measures included in the survey are distinct from structural measures of social support (e.g., marital status, number of close friends)

Downloaded by [185.32.152.107] at 08:04 15 January 2015

and also from health-related measures (Sherbourne & Stewart, 1991). Cronbach's α for this measure was .96.

Emotional status. Emotional status was measured using the Hospital Anxiety and Depression Scale (HADS; Zigmond & Snaith, 1983). The scale contains 14 four-point items, from 0 (not present) to 3 (considerable), with seven assessing largely the anhedonic rather than the somatic aspects of depression (e.g., "I have lost interest in my appearance") and seven assessing anxiety (e.g., "I feel tense or wound up"). This scale was designed in the setting of a general medical hospital outpatient clinic. The validity of HADS has since been confirmed by many studies and it has been shown to be an instrument suited to broad application (Snaith, 2003). Following Fortune, Smith, and Garvey (2005) the anxiety and depression subscales of HADS were summed to create a total emotional status variable. Cronbach's α for HADS = .83. For the purpose of analysis, the total HADS score and scores were reversed in order that higher scores would equate to positive emotional status.

Design/procedure

This study had a cross-sectional and correlational design. Participants were approached via their rehabilitation workers and each gave informed consent. Assessments took place at a time and location suitable to the participant; some assessments were conducted at the participants' own home, others at offices provided by the service provider. One participant did not complete the affiliative identity component of the questionnaire, and another did not complete the self-as-doer identity component of the questionnaire. One client declined to participate and five clients who agreed to participate were unable, on the day, to engage sufficiently to allow them to do so. Four participants had expressive aphasia so drawing with the use of a portable blackboard was used in conjunction with pointing to facilitate effective communication.

Statistical analyses

All data were entered into SPSS for analysis. Checks were conducted for skewness and kurtosis, these indicated that the main study variables were normally distributed and thus parametric tests were used for correlation analysis. Initially analyses tested for bivariate correlations between self-as-doer and affiliative identities, social support, emotional status, age, gender and cause of injury in order to identify variables suitable for inclusion in the model. Commensurate with the guidance offered by Hayes (2009) bootstrapping to 5000 was conducted and the data tested for indirect effects. To this end, path analysis was conducted using PROCESS Model 6 (Hayes, 2013). This

Downloaded by [185.32.152.107] at 08:04 15 January 2015

analysis was then repeated controlling for gender and cause of injury. In this model, the mediators are tested in a causal chain. Path analysis tested the chain suggested in the introduction, i.e., affiliative identity →social support →self-as-doer identity →emotional status.

Following the suggestion of Hayes (2013) in order to investigate (and rule out) the possibility that an alternative causal explanation might "fit" the data, a self-as-doer identity→ social support→ affiliative identity→ emotional status model was also tested.

RESULTS

Table 1 illustrates the means and standard deviations of all measures employed.

Associations between social identities, social support anxiety and emotional status

Preliminary analysis showed that active identity was positively correlated with both emotional status and social support, whereas affiliative identity was positively correlated only with social support. Gender had a significant correlation with active identity such that men had stronger active identities than women and affiliative identity correlated with cause, such that stroke survivors had stronger affiliative identities than other injury types. Correlations between measures (Pearson's *r*) are presented in Table 2.

Mediating relationships between social identities, social support, and emotional status

It was predicted that the relationship between affiliative identity and emotional status would be mediated by social support and self-as-doer identity. This hypothesis was supported. The indirect effect of affiliative identity on emotional status via social support and self-as-doer identity as mediators

TABLE 1
Mean scores and standard deviations, all measures, ABI population

	N	*Minimum*	*Maximum*	*Mean*	*Standard deviation*
Self-as-doer	52	44	91	76	12.37
Affiliative identity	52	57	91	83	9.11
Emotional status	53	11	42	31	7.18
Social support	53	29	95	76	17.98

Possible ranges: Affiliative identity 3–21; Self-as-doer identity 3–21; Psychological well-being 0–42; Social support 19–95.

Downloaded by [185.32.152.107] at 08:04 15 January 2015

TABLE 2
Bivariate correlations between measures (Pearson's *r*)

	Affiliative Identity	*Emotional Status*	*Social Support*	*Age*	*Gender*	*Cause*
Self-as-doer	.54**	.41**	.63**	.18	.32*	.19
Affiliative identity		.11	.59**	.16	−.08	.29*
Emotional status			.35**	.06	−.22	.08

* = correlation is significant at the .05 level (2-tailed); ** = correlation is significant at the .01 level (2-tailed).

Downloaded by [185.32.152.107] at 08:04 15 January 2015

was: $B = 0.29$; $SE = 0.10$; 95% CI (0.12, 0.49). The standardised indirect effect was: $\beta = 0.37$; $SE = 0.12$; 95% CI (0.16, 0.63)[1]. A model was also tested which included gender and cause of injury as covariates (these correlated with active and affiliative identities, respectively, in the preliminary analysis). Standardised effect sizes are not available in PROCESS models which control for covariates but, controlling for gender and cause of injury, the unstandardised indirect effect of affiliative identity on emotional status via social support and self-as-doer identity was $B = 0.27$, $SE = 0.10$; 95% CI (0.10, 0.51). These findings, illustrated in figure 1, can be understood in terms of affiliative identities generating higher perceived functional social support, and functional social support facilitating participation in activities that become internalised as self-as-doer identities, which in turn generate emotional status. There was no significant direct effect of affiliative identity on emotional status: $B = -0.21$; $SE = 0.13$; 95% CI (−0.47; 0.05).

The model of an alternative causal explanation, i.e., that self-as-doer identity had a significant indirect relationship with emotional status via social support and affiliative identity as mediators was also tested. This model was not significant. $B = 0.02$; $SE = 0.07$; 95% CI (−0.12, 0.15). In other words there was no significant relationship between self-as-doer identity and emotional status mediated by social support and affiliative identity.

DISCUSSION

The results of this study suggest that in the context of ABI, affiliative identity is a significant driver of well-being via social support and self-as-doer identity.

[1]Looking to anxiety and depression as distinct outcomes: The total indirect effect of affiliative identity on anxiety via social support and self-as-doer identity as mediators was $B = -0.63$; $SE = 0.20$; 95% CI (−1.19; −0.35). The total indirect effect of affiliative identity on depression via social support and self-as-doer identity as mediators was $B = -0.32$; $SE = 0.19$; 95% CI (−0.74; −0.00).

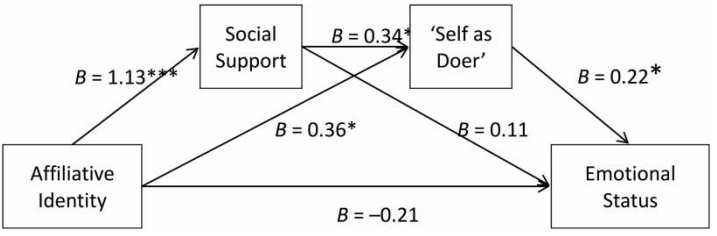


Figure 1. Path analysis for affiliative identity to emotional status via social support and self as doer identity. $B = 0.29$; $SE = 0.10$; 95% CI (0.12, 0.49). $^{*}p < .05$; $^{**}p < .01$; $^{***}p < .001$.

Downloaded by [185.32.152.107] at 08:04 15 January 2015

Our preliminary investigations examined whether affiliative and self-as-doer identities correlated differently with perceptions of social support and positive psychological well-being. Results indicate that for those survivors of ABI who took part in this study, these different types of identities had different effects. Affiliative identity was positively correlated with social support but not correlated with emotional status. In contrast, self-as-doer identity was positively correlated with emotional status in addition to being positively correlated with social support. This supports the approach advocated by Wilson et al. (2009) and suggests that meaningful activities that facilitate identity construction are of importance in terms of individual post-ABI adjustment.

According to the literature, social identity both makes social support possible (Jetten et al., 2010) and is made possible by social support (Gleibs et al., 2011). To the best of our knowledge this study is the first to investigate whether the reciprocity between social identity and social support is explicable via consideration of different types of social identities. This research investigated how, in the context of ABI, the relationship between social identity and social support is such that each drives the other with regard to emotional status. The results of the path analysis suggest that examining identity in terms of affiliative and self-as-doer identity types offers a route to understanding the reciprocal relationship between social identity and social support described in the existing literature. Evidence suggests that affiliative identity, a feeling of belonging, makes social support possible and that, in turn, social support enables self-as-doer identification. This evidence of reciprocity between social identity and social support is wholly consistent with self-categorisation theory as set out by Turner and Oakes (1986) who, in arguing for an interactionist social psychology, clearly recognised and acknowledged such reciprocal interactions. This finding is also in line with the proposition put forward by Haslam et al. (2005, p.367) who said that self-categorisation principles "suggest that social identification has the potential to create an 'upward spiral' whereby identification increases social support and emotional status, which in turn increase social identification".

Our finding that social support and self-as-doer identities mediate the relationship between affiliative identity and emotional status lends support to the view that social identities are heterogeneous (Deaux et al., 1995). It seems that belonging to groups (affiliative identity) fosters perceptions of social support and that perceiving social support facilitates participation in activities which become internalised as social identities (self-as-doer identity) which in turn impact positively on psychological well-being. Our results suggest that looking to one type of social identity alone may not tell the whole story regarding relationships between social identity, social support and emotional status following brain injury. The significance of identity arising from belonging, of affiliative identity, seems to rest in a wider causal chain that includes perceived social support and self-as-doer identities. Affiliative identity, identity built on belonging, seems to be necessary, but not sufficient, for positive emotional status following ABI. Engagement with meaningful activities that can become internalised as identities seems to be required. Results of this study support and clarify the existing social identity literature pertaining to relationships between social identity, social support and emotional status. Evidence backs the view that the relationship between social identity and social support is such that each makes the other possible. Application of the concepts of self-as-doer and affiliative identity facilitates understanding of the processes through which this reciprocal interaction between social identity and social support takes place.

It seems that social identity resources are mobilised to safeguard or regain emotional status when it is threatened by circumstance**.** There are important practical considerations flowing from these findings, not least is the requirement for a programme of research which must focus on further uncovering processes of reciprocity (Turner & Oakes, 1986). In contrast to the social identity approach which understands individuality as a social property (Turner & Oakes, 1986), there remain perspectives in psychology which accept the concept of personality change and regard an important aspect of neuropsychological rehabilitation as being about coming to terms with irreversibly altered personality. Yeates, Gracey, and Collicutt McGrath (2008, p.568) refer to this type of individualistic perspective as a "clinical dead end". However, the evidence provided that self-as-doer identities can be driven by social support, challenges deterministic and individualistic understandings. It offers support instead for an interactionist approach. The evidence presented further affirms the utility of social approaches to neuropsychology such as applied by Yeates et al. (2008), Wilson et al. (2009), and Bowen, Yeates, and Palmer (2010). Our findings support the view that who it is that people understand and experience themselves to be, who they "are", is, partly at least, a function of external, social factors.

These findings also support the type of relational approach advocated by Bowen et al. (2010) and by Ylvisaker, McPherson, Kayes, and Pellett

Downloaded by [185.32.152.107] at 08:04 15 January 2015

(2008) in terms of metaphoric identity mapping. This type of "social neuropsychology" (Haslam et al, 2008) has the potential for considerable utility in applied neuropsychological rehabilitation. Another important and practical consequence of the findings presented in this study is that they might contribute to a shift in understanding of social participation. Instead of regarding social participation as a desired outcome, as has traditionally been the case, social participation could instead be understood as a rehabilitation input that might usefully be targeted for intervention. As such, meaningful social activities might be structured for individuals in such a way that they contribute to developmental trajectory that is continuously fed through social experience (Gracey & Ownsworth, 2012). Cantor et al. (2005) suggested that better understanding of factors related to post-ABI affective disorders is essential to the development of appropriate interventions to address these disorders. It is our hope that the distinction between the identity sub-types of affiliative and self-as-doer identities that was drawn in the present study might contribute towards such an understanding and perhaps even offer a basis for practical interventions that contribute towards individual recovery and adaption.

Downloaded by [185.32.152.107] at 08:04 15 January 2015

Limitations

This study was a correlational study and it must be acknowledged that a correlational design precludes a definitive causal interpretation of the relationships between affiliative identity, self-as-doer identity, social support, anxiety and depression. Hayes (2013) refers to the issue of causality as the cinnamon bun of social science – a sticky and messy concept. Hayes cautions that statistical causality is a concept that unravels in an endless philosophical spiral of reductionism and recommends a more pragmatic approach. Hayes suggests that social scientists do the best they can with the statistical tools and data available to them, therefore, PROCESS Model 6 (Hayes, 2013) was employed in this study. This model was designed to establish the order of serial mediators in a causal pathway between predictor and outcome variables. While it is the case that this model does not definitively establish causation according to its author it does facilitate informed consideration and engagement with the contemplation of causal pathways between the variables being investigated.

There are other limitations to this study. In short, the findings should be regarded as preliminary due to sampling, measurement and design considerations. The sample size was relatively small and it is possible that cultural context and other factors might limit the generalisability of the findings. On this point, it would be interesting to investigate whether there would be a difference in these processes between cultures where cultural interdependence is favoured, and Western "independent" cultures where "doing" is regarded as important. It is also arguable that a longitudinal study would

provide more compelling support for the finding presented here. In terms of measurement, while the authors approached the data informed by a social identity perspective and attempted to measure the strength of the single affiliative and self-as-doer identity which participants considered most important to "what made them who they are" it needs to be recognised that identities are fluid and dynamic and may vary as a function of importance and salience at different times. As such, firm conclusions about the direction or causality of relationships should not be drawn at this point. Furthermore, the study did not include a "stressed" non-ABI group which might establish whether these data speak to a broader model or are specific to the somewhat unique example of altered identity following ABI.

Downloaded by [185.32.152.107] at 08:04 15 January 2015

CONCLUSION

Research of identity processes amongst survivors of ABI is interesting because it allows a measure of access to processes that can be understood as being, to some degree, interrupted and thus laid bare. It has been suggested that the interruption of higher psychological functions can serve as a path for their analysis (Cole, Levitin, & Luria, 2006). Contemporary neuropsychological researchers including Yeates et al. (2008) advocate social approaches to neuropsychology. Given the sample size and other limitations outlined previously, the results presented herein constitute a level of qualified support for such approaches. The value of distinguishing between affiliative identity and self-as-doer identity is apparent on two levels: the theoretical and the applied. On a theoretical level, distinguishing between affiliative and self-as-doer identities and their associated pathways with regard to emotional status provided empirical results which support an argument for reciprocal interaction, and an argument against individualism in neuropsychological rehabilitation. On a practical level, the distinction between affiliative and self-as-doer identities would seem to offer the promise of utility in the applied context of ABI and it seems reasonable to suggest that the distinction may also offer the potential for practical application in a wider context.

This report re-emphasises the importance of social support to emotional status. It also provides evidence supporting the idea of an upward spiral of reciprocity between social identities and social support as they relate to emotional status amongst those living with ABI. Self-as-doer and affiliative identities seem key to understanding this reciprocity and were demonstrated to be useful concepts for application in attempting to understand this "upward spiral" because they were shown to work in different ways amongst people who have survived ABI. We believe that the social identity approach holds the key to explaining at least some of the complexity attaching to the reciprocal processes taking place between identity, social support and emotional

status following ABI, but much remains to be done. A logical next step in this enterprise will be to incorporate analysis of neurological factors associated with ABI in an investigation of emotional status. We submit that the concepts of self-as-doer and affiliative identities offer a starting point for the investigation of identity processes emerging from reciprocal interaction between social and biological factors following ABI and perhaps in the context of other chronic or extreme stressors.

Downloaded by [185.32.152.107] at 08:04 15 January 2015

REFERENCES

Ashmore, R. D., Deaux, K., & McLaughlin-Volpe, T. (2004). An organizing framework for collective identity: Articulation and significance of multidimensionality. *Psychological Bulletin*, *130*(1), 80–114.

Billig, M. (1995). *Banal nationalism*. London: Sage.

Bowen, C., Yeates, G., & Palmer, S. (2010). *A relational approach to rehabilitation: Thinking about relationships after brain injury*. London: Karnac Books.

Broks, P. (2003). *Into the silent land: Travels in neuropsychology*. New York: Atlantic Monthly Press.

Butler, J. (2003). Identity, deconstruction, and politics. In M. Gergen, & K. J. Gergen (Eds.), *Social construction. A reader* (pp. 129–131). London: Sage.

Cantor, J. B., Ashman, T. A., Schwartz, M. E., Gordon, W. A., Hibbard, M. R., Brown, M., . . . Cheng, Z. (2005). The role of self-discrepancy theory in understanding post traumatic brain injury affective disorders: A pilot study. *Journal of Head Trauma Rehabilitation*, *20*(6), 527–543. doi.10.1097/00001199-200511000-00005

Cohen, S. (1988). Psychosocial models of the role of social support in the etiology of physical disease. *Health Psychology*, *7*(3), 269–297.

Cohen, S., & Wills, T. A. (1985). Stress, social support, and the buffering hypothesis. *Psychological Bulletin*, *98*(2), 310–357.

Cole, M., Levitin, K., & Luria, A. R. (2006). *The autobiography of Alexander Luria: A dialogue with the making of mind*. New York: Psychology Press.

Dahlberg, C., Hawley, L., Morey, C., Newman, J., Cusick, C. P., & Harrison-Felix, C. (2006). Social communication skills in persons with post-acute traumatic brain injury: Three perspectives. *Brain Injury*. doi:10.1080/02699050600664574

Deaux, K., Reid, A., Mizrahi, K., & Ethier, K. A. (1995). Parameters of social identity. *Journal of Personality and Social Psychology*, *68*(2), 280–291.

Douglas, J. M. (2012). Social linkage, self concept, and well-being after severe traumatic brain injury. In J. Jetten, C. Haslam, & S. A. Haslam (Ed.), *The social cure: Identity, health and well-being* (pp. 237–254). Hove: Psychology Press.

Douglas, J. J. (2013). Conceptualizing self and maintaining social connection following severe traumatic injury. *Brain Injury*, *27*(1), 60–74.

Ellis-Hill, C. S., & Horn, S. (2000). Change in identity and self-concept: A new theoretical approach to recovery following a stroke. *Clinical Rehabilitation*. doi:10.1191/026921500671231410

Fortune, D. G., Smith, J. V., & Garvey, K. (2005). Perceptions of psychosis, coping, appraisals, and psychological distress in the relatives of patients with schizophrenia: An exploration using self-regulation theory. *British Journal of Clinical Psychology*, *44*(3), 319–331.

Gallagher, S., Meaney, S., & Muldoon, O. T. (in press). Social identity influences stress appraisals and cardiovascular reactions to acute stress exposure. *British Journal of Health Psychology*.

Gleibs, I. H., Haslam, C., Haslam, S. A., & Jones, J. M. (2011). Water clubs in residential care: Is it the water or the club that enhances health and well-being? *Psychological Health*, *26*(10), 1361–1377.

Gracey, F., & Ownsworth T. (2012). The experience of self in the world: The personal and social contexts of identity change after brain injury. In J. Jetten, C. Haslam, & S. A. Haslam (Eds.), *The social cure: Identity, health and well-being*. (pp. 273–295) Hove: Psychology Press.

Gracey, F., Palmer, S., Rous, B., Psaila, K., Shaw, K., ODell, J., . . . Mohamed, S. (2008). Feeling part of things: Personal construction of self after brain injury. *Neuropsychological Rehabilitation*, *18*(5–6), 627–650. doi:10.1080/09602010802041238

Hammell, K. W. (2004). Dimensions of meaning in the occupations of daily life. *Canadian Journal of Occupational Therapy*, *71*(5), 296–305.

Haslam, C., Holme, A., Haslam, S. A., Iyer, A., Jetten, J., & Williams, W. (2008). Maintaining group memberships: Social identity continuity predicts well-being after stroke. *Neuropsychological Rehabilitation*, *18*(5–6), 671–691.

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

Hayes, A. F. (2009). Beyond Barron and Kenny: Statistical mediation analysis in the new millennium. *Communication Monographs*, *76*(4), 408–420.

Hayes, A. F. (2013). *Introduction to mediation, moderation, and conditional process analysis: A regression-based approach*. New York: The Guilford Press.

Houser-Marko, L., & Sheldon, K. (2006). The self-as-doer construct: Implications for sustained motivation. *Personality and Social Psychology Bulletin*, *32*, 1037–1049.

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

Jetten, J., Haslam, S. A., Iyer, A., & Haslam, C. (2010). Turning to others in times of change: Social identity and coping with stress. In S. Sturmer, & M. Snyder (Eds.), *The psychology of pro-social behaviour: Group processes, intergroup relations, and helping* (pp. 139–156). Oxford: Blackwell.

Jones, J. M., Haslam, S. A., Jetten, J., Williams, W. H., Morris, R., & Saroyan, S. (2011). That which doesn't kill us can make us stronger (and more satisfied with life): The contribution of personal and social changes to well-being after acquired brain injury. *Psychology & Health*, *26*(3), 353–369.

Jones, J., Jetten, J., Haslam, S. A., & Williams, W. H. (2012). Deciding to disclose: The importance of maintaining social relationships for well-being after acquired brain injury. In J. Jetten, C. Haslam, & S. A. Haslam (Eds.), *The social cure: Identity, health and well-being* (pp. 255–272). Hove: Psychology Press.

Kaul, M., & Lakey, B. (2003). Where is the support in perceived support? The role of generic relationship satisfaction and enacted support in perceived support's reaction to low distress. *Journal of Social & Clinical Psychology*, *22*, 59–78.

Klein, O., Spears, R., & Reicher, S. (2007). Social identity performance: Extending the strategic side of SIDE. *Journal of Experimental Social Psychology*, *11*(1), 28–45. doi:10.1177/1088868306294588

Downloaded by [185.32.152.107] at 08:04 15 January 2015

Leach, C. W., Rodriguez Mosquera, P. M., Vliek, M. L., & Hirt, E. (2010). Group devaluation and group identification. *Journal of Social Issues*, *66*(3), 535–552.

Leach, C. W., van Zomeren, M., Zebel, S, Vliek, M. L. W., Pennekamp, S. F., Doojse, B., … Spears, R. (2008). Group-level self definition and self-investment: A heirearchical (multicomponent) model of in-group identification. *Journal of Personality and Social Psychology*, *95*(1), 144–165.

Lieberman, M. D. (2013). *Social: Why our brains are wired to connect*. Oxford: Oxford University Press.

Nochi, M. (1998). Loss of self in the narratives of people with traumatic brain injuries: A qualitative analysis. *Social Science & Medicine*, *46*(7), 869–878.

Ponsford, J. (2013). Dealing with the impact of TBI on psychological adjustment and relationships. In J. Ponsford, S. Sloan, & P. Snow (Ed.), *Traumatic brain injury: Rehabilitation for everyday adaptive living* (2nd Edn., pp. 226–261). Hove: Psychology Press.

Reicher, S. D. & Hopkins, N. (2004). On the science of the art of leadership. In D. van Knippenberg, & M. Hogg (Eds.), *Identity, leadership and power*. Oxford: Blackwell.

Sani, F. (2012). Group identification, social relationships, and health. In J. Jetten, C. Haslam, & S. A. Haslam (Eds.), *The social cure: Identity, health and well-being* (pp. 21–38). Hove: Psychology Press.

Sani, F., Bowe, M., & Herrera, M. (2008). Perceived collective continuity and social well-being: Exploring the connections. *European Journal of Social Psychology*, *38*(2), 365–374. doi.10.1002/ejsp.461

Sherbourne, C. D., & Stewart, A. L. (1991). The MOS social support survey. *Social Science and Medicine*, *32*(6), 705–714.

Simon, B. (2004). *Identity in modern society: A social psychological perspective*. Malden, MA: Blackwell.

Snaith, R. P. (2003). The Hospital Anxiety and Depression Scale. *Health and Quality of Life Outcomes*, *1*(29), 1–4.

Stevenson, C., & Muldoon, O. T. (2010). Socio-political context and accounts of national identity in adolescence. *British Journal of Social Psychology*, *49*, 583–599.

Tajfel, H. (1978). *Differentiation between social groups: Studies in the social psychology of intergroup relations*. London: Academic Press.

Tajfel, H. (1982). Social psychology of intergroup relations. *Annual Review of Psychology*, *33*, 1–39.

Tajfel, H., & Turner, J. C. (1979). An integrative theory of intergroup conflict. In W. G. Austin, & S. Worchel (Ed.), *The social psychology of intergroup relations* (pp. 33–47). Monterey, CA: Brooks/Cole.

Thoits, P. (1995). Stress, coping, and social support processes: Where are we? What next? *Journal of Health and Social Behaviour*, *Special Edn*, 53–79.

Turner, J. (1982). Towards a cognitive redefinition of the social group. In H. Tajfel (Ed.), *Social identity and intergroup relations* (pp. 15–40). Cambridge: Cambridge University Press.

Turner, J. (1991). *Social influence*. Milton Keynes, UK. Open University Press.

Turner, J. C., & Oakes, P. J. (1986). The significance of the social identity concept for social psychology with reference to individualism, interactionism and social influence. *British Journal of Social Psychology*, *25*, 237–252.

Uchino, B. N. (2004). *Social support and physical health: Understanding the health consequences of relationships*. New Haven, CT: Yale University Press.

Wakefield, J. R., Bickley, S., & Sani, F. (2013). The effects of identification with a support group on the mental health of people with multiple sclerosis. *Journal of Psychosomatic Research*, *74*(5), 420–426.

Wilcock, A. A. (1998). Reflections on doing, being and becoming, *Canadian Journal of Occupational Therapy*, *65*, 248–256.

Downloaded by [185.32.152.107] at 08:04 15 January 2015

Wilson, B. A., & Gracey, F., Malley, D., Bateman, A., & Evans, J. (2009). The Oliver Zangwill Centre approach to neuropsychological rehabilitation. In B. A. Wilson, F. Gracey, J. J. Evans, & A. Bateman (Eds.), *Neuropsychological rehabilitation* (pp. 47–67). Cambridge: Cambridge University Press.

Yeates, G., Gracey, F., & Collicutt McGrath, J. (2008). A biopsychosocial deconstruction of "personality change" following acquired brain injury. *Neuropsychological Rehabilitation*, *18*(5/6), 566–589.

Ylvisaker, M., Mcpherson, K., Kayes, N., & Pellett, E. (2008). Metaphoric identity mapping: Facilitating goal setting and engagement in rehabilitation after traumatic brain injury. *Neuropsychological Rehabilitation*, *18*(5–6), 713–741. doi:10.1080/09602010802201832

Zigmond, A. S., & Snaith, R. P. (1983). The Hospital Anxiety and Depression Scale. *Acta Psychiatica Scandanavica*, *67*(6), 361–370.

Downloaded by [185.32.152.107] at 08:04 15 January 2015

APPENDIX 1
Affiliative and self-as-doer identities elicited from participants

Art	1
Baking	1
Being a good friend	1
Being a mother	1
Bird breeding	1
Building	1
Child care	1
Choir singing	1
Coffee with friends	1
Computers	1
Cooking and baking	1
DJing	1
Dressing/clothes	1
Farming	3
Fitness	1
Fixing/being handy	1
Following GAA	1
Following irish dance	1
Following Munster	1
Following local FC	1
Going to gym	1
Going to matches	1
Going up the town	1
Greyhounds	1
Gym/pool/sauna	1
Listening to music	1
Mechanicing	1
Mother	2
Music	3
Music and guitar	1
Parenting	2
Parenting/housewife	1
Photography	1
Reading	1
Talking	1
Theatre/cinema	1
Thinking	1
Walking	7
Walking the dog	1
Work	1
Working	1

Downloaded by [185.32.152.107] at 08:04 15 January 2015