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Social Identification, Minority Dissent and Team Innovation

ABSTRACT

Organizational teams have the capacity to address complex and multifaceted problems through innovative solutions, but their capacity to innovate is far from guaranteed. The quest to address this dilemma has yet to explore the interactive roles of professional and team identification; a surprising omission as both professional and team identification have been separately shown to play an important role in determining team innovation. Responding to this research gap, we explore the potential for professional identification to enhance or undermine healthcare team innovation through minority dissent, and argue that team identification is capable of differentiating between these two contrasting effects. Our survey-based study of 76 US healthcare teams supports our moderated mediation model. By showing how professional and team identification interact, our study provide evidence of this newly emergent line of research into the potential complementarity of divisive and inclusive forms of identification. We suggest that the complementarity of inclusive and divisive forms of identification provide an opportunity for teams to reap the benefits, as well as avoid the detriments, typically associated with each form.

Keywords:

Teams, Professional Identification, Team Identification, Social Identification, Minority Dissent, Healthcare Teams

Social Identification, Minority Dissent and Team Innovation

Organizational teams, particularly multidisciplinary teams, can address multifaceted and complex problems through the development of innovative solutions (Hülshager, Anderson, & Salgado, 2009; Reese & Sontag, 2001; Reeves, Abramovich, Rice, & Goldman, 2007). Indeed, in healthcare, the focus of our study, teams have been shown to drive innovation (Buljac-Samardžic, van Woerkom, & Paauwe, 2012; Mitchell & Boyle, 2015; West et al., 2003) and, through this, increase patient safety and hospital efficiency (Dias & Escoval, 2013; Tartari et al., 2016). However, reviews indicate that multidisciplinary teams do not necessarily perform effectively (Hudson, 2002; Hülshager et al., 2009; Mitchell, Parker, Giles, & White, 2010; Zwarenstein & Reeves, 2000) and may experience friction, hostility, and barriers to knowledge sharing, which undermine their innovative potential (Atwal & Caldwell, 2005; Caldwell & Atwal, 2003; Cronin & Weingart, 2007). This has prompted research into the mechanisms and circumstances that can account for, and, critically, can enhance, team innovative capability (Lyubovnikova, West, Dawson, & Carter, 2015; Mitchell & Boyle, 2015; Nembhard & Edmondson, 2006; Schippers, West, & Dawson, 2015)

One promising area of investigation in this quest to understand why and when teams are innovative is the intersection of diversity theory and social identity theory (Mitchell & Boyle, 2015; Mitchell, Parker, & Giles, 2011; van Knippenberg & Schippers, 2007), which points to the importance of social identification in understanding team dynamics and performance of diverse teams. In healthcare, this is echoed in writing on the sociology of the professions that highlights the relative dominance of profession as a source of identity (Ely, 1994; Lingard, Reznick, DeVito, & Espin, 2002) and the substantial impact of professional identification on healthcare workplace dynamics (Currie, Lockett, Finn, Martin, & Waring, 2012; Dingwall & Lewis, 1983; Rueschemeyer, 1983). We build on this research by

exploring the role of professional identification in team innovative capability. In particular, drawing primarily on social identity theory, we posit and investigate a mediated relationship in which the impact of professional identification on team innovative capability is through the mechanism of minority dissent, reflecting a minority faction's opposition to the approach or ideas of the majority of the team (McLeod, Baron, Marti, & Yoon, 1997).

As professional identification increases the importance of actions that enhance the status and reputation of one's profession (Mesmer-Magnus, Asencio, Seely, & DeChurch, 2015), we propose an associated increase in team members' motivation to advocate their profession's distinctive expertise and priorities (Tajfel, Billig, Bundy, & Flament, 1971), thus increasing the potential for minority dissent. However, findings related to the effect of minority dissent have been ambiguous, with evidence of no main effect (Toma, Gilles, & Butera, 2013), as well as support for a link between dissenting opinions and team dysfunction (Eisenhardt & Bourgeois, 1988). This potential for professional identification to either enhance or undermine innovation through dissent prompts our exploration of a contingency capable of differentiating between these positive and negative effects. Drawing again on social identity theory, we argue that team identification potentially fulfills this role, and hypothesize a moderated mediation model in which professional identification impacts team innovative capability through minority dissent contingent on team identification.

Through this research, we aim to examine the interplay between professional and team identification in an effort to advance our understanding of the mechanisms and contingencies of team innovative capability. In particular, we argue for the importance of understanding how team and professional identities interact to contribute to valued team outcomes. Extant research has typically focused on the positive effects of identification that unites members, such as team and organizational identity (for example, Kane, 2010), and negative effects of identification that potentially divides members, such as professional

identification in multidisciplinary teams (Hekman, Bigley, Steensma, & Hereford, 2009; Mitchell et al., 2010). In contrast, we propose that the interactive effects of both professional and team identities can contribute positively to innovative capability. In doing so, we address calls to develop a refined understanding of the potential complementarity of different forms of identification (Ashforth, Harrison, & Corley, 2008; Dovidio, Gaertner, Shnabel, Saguy, & Johnson, 2010) and build on initial explorations of their combined effect (for example, Liao, O'Brien, Jimmieson, & Restubog, 2015).

The following segments provide our rationale for the proposed relationship between professional identification and minority dissent. The subsequent discussion argues a relationship between dissent and team innovative capability, and posits a moderating role for team identification.

Professional Identification and Minority Dissent

Social identification increases the relevance and importance of actions that are instrumental to the enhancement of the focus of identification (Mesmer-Magnus et al., 2015). It follows that, when professional identification is strong, the interests and status of their profession becomes a persuasive influence on judgments related to the risks and benefits of potential actions and their outcomes (Ashforth & Mael, 1989; McNeil, Mitchell, & Parker, 2013). As profession is defined on the basis of unique expertise and professional values (Baer, 1987; Rueschemeyer, 1983), we argue that strong professional identification is associated with an increased motivation to promote and advocate unique professional expertise and approaches (Tajfel et al., 1971). As professional identification strengthens, members are more likely to undertake actions that enhance their profession's reputation and safeguard against compromises to their profession's priorities (Ashforth & Mael, 1989). This suggests that, in multidisciplinary teams comprised of members who identify strongly with

their profession, there will be an increased motivation to promote and advocate unique professional perspectives.

Previous research suggests that, even in circumstances in which the bodies of knowledge utilized by professions reflects relatively few differences and a considerable amount of overlap, healthcare practitioners do ‘boundary work’, that is they adopt professional standpoints that aim to distinguish themselves from others and demarcate their profession (Norris, 2001; Potter & Wetherell, 1994). This reflects the drive to ensure that distinctive professional expertise as an important source of professional power and identity, is affirmed, and recognised by other professions (McNeil et al., 2013). We therefore suggest that professional identification will increase the potential for minority dissent against majority viewpoints held by other professions in an effort to reinforce the distinct expertise and characteristics of their profession (Phillips, Northcraft, & Neale, 2006).

Hypothesis 1: Professional identification has a positive relationship with minority dissent.

Minority Dissent and Team Innovation

Minority dissent differs from other types of task-related conflict as it reflects a minority opposition to an approach or position (McLeod, Baron, Marti, & Yoon, 1997). While task conflict has not been linked to innovation, there is considerable evidence suggesting that minority dissent generates significantly different effects (Nijstad, Berger-Selman, & De Dreu, 2012) and is likely to increase team innovation (De Dreu, 2002; Nijstad, Berger-Selman, & De Dreu, 2014). Dissent prompts members to consider issues from different viewpoints (Dooley & Fryxell, 1999; Nijstad et al., 2012), and also stimulates greater cognitive effort (Nemeth, 1986). This effect occurs whether or not the minority opinion is correct or adopted in the final solution (Nemeth, 1986; Schulz-Hardt, Brodbeck, Mojzisch, Kerschreiter, & Frey, 2006). Increasing the likelihood that minority opinions will

be expressed also prompts members to think about the issue at hand from multiple perspectives, increasing the potential for new ideas (Nemeth, 1995); because dissension represents a unique and distinctive perspective, it signals differentiation (Nemeth, 1986), which is also positively linked to new ideas (Goncalo & Staw, 2006) and, though this, innovation (West & Altink, 1996). In addition, encouraging all members to articulate their divergent perspectives triggers a questioning of current assumptions and proposals, which has also been linked to innovation (Nemeth & Chiles, 1988; Schwenk, 1990). This leads us to our second hypothesis:

Hypothesis 2a: Minority dissent mediates a positive relationship between professional identification and innovation.

While there are good reasons to predict a positive relationship between professional identification and innovation through minority dissent, there is also evidence that dissent may lead to destructive team dynamics and thereby undermine innovation. People who have conflicting views are likely to develop dysfunctional relationships (Condon & Crano, 1988) as disagreement increases a perception of dissimilarity and dislike between individuals (Aronson & Worchel, 1966). A negative impact on team outcomes, including innovation, has been found for dysfunctional relationships (de Wit, Greer, & Jehn, 2012). Challenges to the majority viewpoint may also be construed as indicating a negative evaluation of the competence or intention of its proponents (Swann, Polzer, Seyle, & Ko, 2004) leading to hostility and conflict, which further undermines innovation (De Clercq, Thongpapanl, & Dimov, 2009). In particular, past research suggests that dissent may be interpreted as indicative of self-interested motivations, potentially leading to conflict and information-withholding (Dooley & Fryxell, 1999). This leads us to posit a contrasting hypothesis that predicts a negative impact of dissent on innovation:

Hypothesis 2b: Minority dissent mediates a negative relationship between professional identification and innovation.

The potential for dissent to mediate a positive or negative relationship between professional identification and innovation motivates us to locate a variable capable of differentiating between these contrasting effects. Drawing again on social identity theory, we posit that team identification may fulfil this role. Previous research suggests that healthcare professionals often hold dual identification (Hekman, Steensma, Bigley, & Hereford, 2009) and may identify both with their profession and with the team of which they are a member (Johnson, Morgeson, Ilgen, Meyer, & Lloyd, 2006; Meyer, Becker, & Van Dick, 2006), with some support for a complementary effect in collaborative efforts (for example, Caricati et al., 2015). Identification with their team leads members to hold positive attitudes towards all members, even those who were previously considered as part of the ‘outgroup’ (Gaertner & Dovidio, 2005). This effect lessens the likelihood that divisions between professions will be characterised by the negative consequences of inter-professional stereotyping and hostility (Gaertner & Dovidio, 2005; Gaertner, Mann, Murrell, & Dovidio, 1989; Mitchell et al., 2011).

Team identity also increases motivation to collaborate within professions (Wiles & Robison, 1994) and reinforces the importance of open-minded consideration of conflicting perspectives (Tjosvold & Morishima, 1999). Indeed, team identity has been found to increase the likelihood that even newcomers’ dissenting views will be openly considered and integrated into the team’s work (Kane, 2010). When members identify strongly with the team, minority dissent is therefore more likely to be received as a potentially valuable contribution to the team’s work and less likely to engender dysfunctional relationships through negative evaluations of member capability or motivation. Conversely, when members weakly identify with the team, there will be no counter to the negative evaluation of

dissent and an increased likelihood that such dissension will provoke perceptions of dissimilarity and dislike (Aronson & Worchel, 1966).

This discussion leads to the following hypothesis:

Hypothesis 3: Team identification will moderate the relationship between minority dissent and innovation, such that when team identification is high there will be a positive relationship between minority dissent and innovation while when team identification is low, there will be a negative relationship.

We have argued that, in teams comprised of members who identify strongly with their profession, there is an increased potential for minority dissent as members are motivated to disagree and challenge others particularly across professional divides. A positive mediated relationship between professional identification and innovation through minority dissent is posited based on the argument that such dissent leads members to view ideas from different perspectives and triggers a questioning of current assumptions and proposals. In contrast, a negative mediated relationship is argued based on evaluations of dissent as indicating dissimilarity, dissent, and threats to competence. We then suggest that this effect is contingent on team identification such that weaker team identification may increase the potential that dissent will lead to hostility while stronger team identification motivates members to openly consider dissenting input, increasing the opportunity to benefit from such dissent. Together these hypotheses suggest that professional identification influences team innovation through minority dissent contingent on team identification, and lead us to hypothesize the following:

Hypothesis 4: The significant effect of professional identification on team innovation through minority dissent will be moderated by team identification. This moderating effect will be such that professional identification will have a positive effect on innovation through

minority dissent when team identification is high and a negative effect on innovation through minority dissent which team identification is low.

METHOD

Procedure and Sample. Our participants were recruited from healthcare organisations within the United States (US), and our sampling frame was healthcare teams registered in a database hosted by a research services organisation. Teams were defined as two or more members, with a collective perception of team membership, pursuing shared aims and led by an identifiable leader (Kozlowski & Bell, 2003). The team leader was requested to complete a leader survey which collected data on team and leader characteristics as well as our outcome variable, innovation. Team members were asked to complete a different survey that included items related to team dynamics and processes. Our use of these two discrete questionnaires minimised the risk of bias due to common source (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003).

Surveys were distributed to 201 teams and responses were received from 355 members of 76 teams, which reflects a 38% response rate. We received responses from 68% of team members. Our participant teams indicated a range of work functions including the resolution of complex patient, clinical and service issues, as well as research and policy development. Innovation is wide-ranging in this healthcare context and includes, for example, the development of new guidelines, changed clinic practices, new models of care as well as clinical interventions (Fay, Borrill, Amir, Haward, & West, 2006; Holleman, Poot, Mintjes-de Groot, & van Achterberg, 2009; Mitchell, Parker, & Giles, 2012a).

Our team composition reflected a wide range of healthcare professions including nurses, medical doctors, and allied health and associate professionals comprising paramedics, biomedical scientists, welfare officers, dentists, dieticians, pharmacists, psychologists, occupational therapists, opticians, physiotherapists, podiatrists and radiographers. Members

had been employed in their present organisation for an average of approximately 6 years. Teams had worked together for an average of just over three years. The median age of participants was 40 years, approximating the median age of 42.9 years for all US health service employees (Bureau of Labor Statistics, 2016). In addition, the professional composition of our participants was comparable to US healthcare professions – nurses comprised 49% of our respondents and 54.5% of US healthcare professionals while 15.7% of the US healthcare workforce are medical doctors (physicians) and accounted for approximately 6% of our sample (Bureau of Health Workforce, 2017).

Measures: As our hypotheses were at the team level of analysis, we needed to justify the aggregation of our individual responses to team level. In common with similar previous research, we investigated within-group agreement and between-groups variance in order to assess the appropriateness of aggregation. *Analysis of within-group variance.* We first calculated interrater agreement using the approach developed by James, Demaree and Wolf (1984) for professional identification, minority dissent and team identification scales. We anticipated all median r_{wg} values would be over the acceptable .70 cutoff to justify aggregation (George, 1990). *Analysis of between-groups variance:* To determine between-groups variance and so to evaluate the discriminating power of our scales, we performed one-way analyses of variance (ANOVAs) for the professional identification, minority dissent and team identification scales. In order to justify aggregation, we expected that the F value for each scale would be statistically significant, which implies meaningful differences between teams.

Professional Identification: We used three scale items to assess professional identification taken from Mitchell et al. (2012b). Participants were asked whether: they feel proud to be a member of their profession; they feel closely connected to their profession; they would be very disappointed if they were forced to leave their profession.

Our conceptualization of professional identification at a team level reflects an aggregate of the strength of professional identification reported by each member in a team. Though professional identification can be conceived as an individual level construct, it has also been conceptualized and operationalized at a team level (for example, Mitchell et al., 2011), similar to individual characteristics like personality (for example, Homan et al., 2008). When such team level constructs are measured as individual team member characteristics, the resulting measures must be aggregated (Neuman & Wright, 1999). We could not use a direct consensus approach as we expected that professional identification may vary across different members and different professions (Chan, 1998). We therefore chose to operationalize professional identification based on the team's task (Barrick, Stewart, Neubert, & Mount, 1998; Homan et al., 2008), using categories developed by Steiner (1972). Steiner (1972) distinguished between disjunctive, conjunctive and additive tasks. Our participant teams were involved in, for example, resolving complex patient-related issues, clinical and service development. This work reflects additive tasks in which all team members are required to share their skills and knowledge for the team to achieve its highest performance (Molyneux, 2001). Given the additive nature of our teams' tasks, we used the average of member scores as our measure of professional identification at the team level. Professional identification was measured on a 7-point Likert scale anchored by 1 = Strongly Disagree and 7 = Strongly Agree. Cronbach alpha for this scale was .90. Our results supported team-level aggregation. The median r^{wg} for professional identification was .86 and the ANOVA result for professional identification was significant (F ratio= 1.86, $p=.00$).

Minority Dissent: Minority dissent was measured using four items taken from DeDreu and West's (2001) scale. The scale asks for an assessment of the extent to which: individuals with opinions against the majority present their ideas; one or two individuals in the team disagree with the rest of the team; members do not always go along with the majority

opinion. Minority dissent was measured on a 7-point Likert scale anchored by 1 = Strongly Disagree and 7 = Strongly Agree. The Cronbach alpha for minority dissent was .78. Our results again supported team-level aggregation. The median r_{wg} for minority dissent was .84, and the ANOVA result was also significant (F ratio= 1.95, $p=.00$).

Team Identification: We used three scale items to assess team identification adapted from Mitchell et al (2011). For example, participants were asked whether: they attached to the team; identify strongly with the team; and see themselves as part of the team. Team identification was measured on a 7-point Likert scale anchored by 1 = Strongly Disagree and 7 = Strongly Agree. The Cronbach alpha for team innovation was .91. Our results again supported team-level aggregation. The median r_{wg} for team identification was .82 and the ANOVA result was significant (F ratio= 1.40, $p=.03$).

Team Innovation: Three items measured team innovation in the leader survey based on previously validated measures (Menguc, Auh, & Yannopoulos, 2014). We adapted original scale items to reflect our healthcare context. Leaders were asked, for example, to rate the extent to which the team produced innovations that fundamentally change the current approach to service or care, require new expertise or rely on new skills and innovations that rely on new models of care or services. Innovation measured on a 7-point Likert scale. The Cronbach alpha for team innovation was .91.

Control Variables: Size of team and team tenure were included as control variables. Previous research has found that size is correlated both with team processes and team performance (Hewstone, 1996; Lewis & Herndon, 2011). In particular, the inclusion of size as a control is theoretically justified based on the process loss theory of team dynamics, which argues that increasing team numbers are linked to decreasing performance (Steiner, 1966). Team tenure may influence team processes, such as reflexivity (Schippers, Den Hartog, Koopman, & Wienk, 2003), which may, in turn, enhance innovation (De Dreu,

2002). Longer team tenure has been shown to increase team performance (Watson, Kumar, & Michaelsen, 1993). *Professional Diversity*: We also included professional diversity as a control variable based on research indicating a positive relationship between diversity and innovation (Mitchell & Boyle, 2015). Following Harrison and Klein (2007), we used Blau's (1977) index of heterogeneity to measure diversity: $(1 - \sum P_i^2)$, where P_i is the proportion of team members in i th category. *Task Conflict*: We included task conflict as a control variable, as this construct has been linked to innovation and team identification (Mitchell, Parker, Giles, & Boyle, 2014; Mortensen & Hinds, 2001). Task conflict was measured in our leader survey on a 7-point Likert scale. Items from Jehn (1995) asked leaders to, for example, gauge the extent to which members disagreed about ideas on the team and had differences of opinion regarding issues relevant to the team's task. The Cronbach alpha for this measure was .90. *Professional Identification Variation*: Researchers have argued the importance of controlling for dispersion effects when using mean scores (Homan et al., 2008), particularly when there is likely to be individual variance within teams. As we used the mean of professional identification to reflect a team-level variable, we also included a measure of professional identification variation within teams operationalized as the standard deviation in identification scores. *Team Participation*: We included participation as a control variable following research indicating its capacity to influence innovation in teams (DeDreu & West, 2001) and is influenced by healthcare team composition (West & Anderson, 1996). Team participation was measured in our leader survey on a 7-point Likert scale. We used two items in the leader survey to assess participation, for example "To what extent do all team members participate?". The Cronbach alpha for this measure was .94.

DATA ANALYSES

Our hypothesized model reflects a second-stage moderated mediation model. That is, the path from the mediator to the dependent variable is contingent on moderator variables (Edwards

and Lambert, 2007).

Tests of mediation: Hypotheses two (2a and 2b) proposes simple mediation in which the relationship between professional identification and innovation is mediated by dissent. In addition to generating a Sobel statistic, we investigated bootstrap confidence intervals for our predicted indirect effects (1000 bootstrap). Confidence intervals that do not incorporate zero indicate a significant indirect effect (Preacher & Hayes, 2008).

Tests of moderation: Our third hypothesis reflects a moderated relationship. To investigate this hypothesis, we undertook hierarchical multiple regression analyses with innovation as the dependent variable. Innovation was regressed on minority dissent, task conflict and their interaction (product) term. We mean-centered predictor and moderator variables prior to calculation of the interaction variable (Cohen et al., 2003). The significance of the coefficient for these interaction terms provides an indication of support for our hypotheses of moderation.

Tests of moderated mediation: Our final hypothesis reflects a moderated mediation path in which professional identification's effect on team innovation through minority dissent, is moderated by team identity. We investigated this hypothesis following Edwards and Lambert (2007) who advise examining the conditional indirect effect at different levels of the moderator/s based on the generation of 95% bias-corrected confidence intervals. Our moderated mediation hypothesis is supported if the conditional indirect effect of professional identification on innovation through minority dissent is stronger when team identification is high (Edwards & Lambert, 2007; Preacher & Hayes, 2008; Preacher et al., 2007). High and low values were operationalised as one standard deviation above and below the mean of team identification values. We used the PROCESS SPSS macro for this analysis (Hayes, 2012).

RESULTS

Table 1 shows the means, standards deviations and correlations among variables.

INSERT TABLE 1 ABOUT HERE

We first investigated the discriminant validity of our measures using AMOS (Arbuckle, 2014) to conduct a confirmatory factor analysis with all predictor variables measured in the members questionnaire including minority dissent, professional identification and team identification. To support measurement model fit we expected CFI and IFI values that are close to one (Byrne, 2001) and RMSEA values of .08 or less (DiLalla, 2000). This analysis generated $\chi^2 = 60.54$ (df = 32), $p = .00$ with fit indices that suggest good fit to the data (CFI = .98; IFI = .98; RMSEA = .05). We compared our measurement model to two alternative models. In our second comparative model professional and team identification were combined. Analysis suggested poorer fit ($\chi^2 = 392.54$, df = 234 $p < .00$; CFI = .78; IFI = .78; RMSEA = .17). We also compared a single factor model, which also suggested poorer fit to the data ($\chi^2 = 789.22$; df = 35), $p < .00$. The fit indices of this single factor model suggest poor fit to the data (CFI = .54; IFI = .54; RMSEA = .25).

Our hypothesis testing results are summarized in Table 2. As recommended by Becker (2005), Table 2 provides our results with and without control variables. The analyses revealed support for a significant path between professional identification and minority dissent supporting hypothesis 1 ($\beta = .37$, $t = 2.97$, $p = .00$, 95% CI .11 to .58). No significant coefficient was found for the path between minority dissent and innovation lending no support to hypotheses 2a or 2b ($\beta = .22$, $t = 1.98$, $p = .05$, 95% CI = -.00 to 1.12). A confidence interval for the indirect effect that included zero (95% CI = -.01 to .50) also provided no support for mediation.

We found support for a moderating effect of team identification on the path between minority and innovation ($\beta = .28$, $t = 2.50$, $p = .02$, 95% CI .20 to 1.80), providing support for hypothesis 3. This result is depicted in Figure 1. Further investigation using the Johnson-

Neyman technique found that dissent increased innovation when team identification values were above 4.98 and 57% of our teams reported such values.

INSERT TABLE 2 AND FIGURE 1 ABOUT HERE

Hypothesis 4 predicts a moderated mediated relationship between professional identification and innovation through minority dissent contingent on team identification. We found support for this hypothesis as the indirect effect of professional identification on innovation through minority dissent was significant at high values of team identification (indirect effect = 1.22, $t = 2.97$, $p = .004$, 95% CI = .40 to 2.04). We further found that this indirect path was not significant when team identification was low (indirect effect = .09, $t = -.24$, $p = .80$, 95% CI = -.61 to .79). This provides support for hypothesis 4.

DISCUSSION

The purpose of this research was to explore the role of professional identification, team identification and minority dissent in team innovation. We investigated the impact of professional identification on minority dissent, which, we argued, mediates a path to innovation, contingent on team identification. Our cross-sectional research design limits our capacity to assess causality. However, drawing on our theoretical arguments, we interpret the results as supporting the proposition that professional identification is an important team dynamic, capable of generating significant knowledge-related benefits as well as risks, and that teams will only realize these benefits when members identify both with their own profession and the team.

Our findings make several important contributions. First, our finding that professional identification may indirectly increase innovation, contingent on team identification has implications for our understanding of the interactive impact of work-related identification and the potential for such interaction to explain previous ambiguous findings. Despite research

indicating the divergent roles of identification with different foci, such as team, occupation or organization (for example, Hekman, Bigley, et al., 2009; Hekman, Steensma, et al., 2009; Jetten, O'Brien, & Trindall, 2002; van Knippenberg & van Schie, 2000), very few studies have simultaneously explored the role of more than one work-related identity (He & Brown, 2013).

In addition, previous research has tended to view social identification as a factor that either undermines or enhances team performance (for example, Eckel & Grossman, 2005; van Knippenberg & Schippers, 2007). This research typically argues that identification with targets that unify individuals into a more inclusive 'ingroup', such as team or organizational identification, motivates collaborative efforts and lessens the potential for intra-team tensions to negatively affect performance (for example, Eckel & Grossman, 2005; Mortensen & Hinds, 2001; Van Der Vegt & Bunderson, 2005). In contrast, identification with targets that divide individuals and maintain 'ingroup-outgroup' divisions, such as professional identification in multidisciplinary teams or cultural identification in cross-cultural teams, have been argued to potentially engender conflict and tension that undermines team performance (Lloyd, Schneider, Scales, Bailey, & Jones, 2011; Van Der Zee, Atsma, & Brodbeck, 2004). However, there is evidence that the impact of neither inclusive nor divisive types of identification is confined to a particular effect, and both may have different effects that potentially contribute to or undermine team performance. For example, while identification with more inclusive targets tends to motivate members to attend to, and prioritize attributes that are shared by all members (Mortensen & Hinds, 2001), it is also associated with a tendency to ignore attributes that differentiate between members (Gaertner et al., 1989). In contrast, while divisive identification that maintains 'ingroup-outgroup' divisions within teams may contribute to intra-team tensions (Lloyd et al., 2011) it may also motivate the advocacy of distinctive expertise (Mitchell & Boyle, 2015).

We argued, and our findings suggest, that these contrasting effects of inclusive and divisive forms of identification may interact such that the teams may benefit from the distinguishing characteristics that reflect team divisions, in this case professional expertise and perspective, and also benefit from the inclusive effects of team identification. By showing how professional and team identification interact, our study provide evidence of this newly emergent line of research into the potential complementarity of divisive and inclusive forms of identification. Our findings thus align with a dual identity model (Gaertner, Dovidio, & Bachman, 1996; Hogg & Terry, 2000) and lend support to the beneficial effects for teams of members identifying with both their profession and team. While dual identity has consistently been advocated as a basis for mitigating negative consequences of intergroup attitudes (Dovidio et al., 2010; Hogg & Terry, 2000; Hornsey & Hogg, 2000), we extend the applicability of this model to team performance, particularly innovation. We suggest that the complementarity of inclusive and divisive forms of identification provide an opportunity for teams to reap the benefits, as well as avoid the detriments, typically associated with each form.

Our results also contribute to a better understanding of how professional identification influences team innovation by supporting the mediating role of minority dissent, contingent on team identification. While previous meta-analysis has found that task-related conflict has no impact on innovation (Hülshager et al., 2009), we argued that minority dissent reflects a team dynamic that is capable of overcoming the limitations of conflict between relatively equal factions. Our results support this argument as we find that, even when controlling for task conflict and the extent to which members participate in team discussions, minority dissent is capable of stimulating innovation and accounts for the impact of professional identification, contingent on team identification. This suggests that minority dissent has a positive impact on innovation, contingent on team identification, over and above the potential

impact of participation and task conflict, suggesting that minority dissent has an effect that can be differentiated from these, related constructs.

As teamwork continues to be of critical importance in healthcare (Leroy et al., 2012), our research has significant managerial implications. While healthcare innovation still represents a relatively under-explored aspect of team performance, an increasing number of studies focus on innovation, both in management and healthcare research (for example, Buljac-Samardžic et al., 2012; Mitchell & Boyle, 2015; Salge & Vera, 2009; Zippel-Schultz & Schultz, 2011). Our findings suggest that while healthcare teams have the potential to innovate, this capacity is contingent on important intra-team dynamics. A particular challenge for healthcare managers arises from the imperative to reinforce professional identification while also raising team identification. In this situation, we suggest the potential for inclusive leadership styles, which have been previously been shown to enhance team identification and remove status-related inter-professional tensions (Mitchell et al., 2015).

There are a number of limitations of this study including a small sample size, which may have lessened the chance that significant relationships would be evidenced. This was compounded by the investigation of moderating effects (Dahl & Pedersen, 2004). While we found support for our hypothesized moderators, we recognize the value of replication using larger samples. A further sample-related limitation relates to our use of healthcare teams. While this sample can be argued as particularly valuable given the increasing policy and clinical emphasis on teamwork in healthcare (CAIPE, 2008), it may limit the extent to which findings are applicable to teams outside healthcare. We note that healthcare teams share issues such as complexity of decision context and multiple demands (Jeffcott & Mackenzie, 2008), which suggests that our findings are likely to be relevant beyond healthcare, however there is also value in future research that investigates the impact of professional and team identification in other organizational contexts, particularly professional bureaucracies. We are

also aware of measurement related limitations. In particular, our measurement of the dependent variable, innovation, was undertaken in our leader survey. Though this measure has been utilized in past research, it reflects a subjective assessment, and leads us to suggest that future research adopts a more objective measure, such as new products or services (Hülshager et al., 2009).

Despite these limitations, our research represents an important contribution to understanding when and how professional identification generates positive and negative effects in healthcare teams and, in particular, the complementary impact of professional and team identification in such teams.

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TABLE 1.

Variable Means, Standard Deviations and Correlation Coefficients (N = 76)

	<i>M</i>	<i>SD</i>	1	2	3	4	5	6	7	8	9	10
1 Team Size	4.87	1.74										
2 Team Tenure	3.36	1.96	-.20									
3 Team Diversity	.27	.26	.24*	-.05								
4 Identity Variance	1.20	.53	.12	.15	-.12							
5 Task Conflict	3.79	1.75	-.00	.09	.22	-.02						
6 Team Participation	5.38	1.51	-.08	-.15	-.06	.04	-.01					
7 Professional Identification	5.21	.65	-.08	.00	.19	.05	.41**	.13				
8 Minority Dissent	4.55	.61	-.06	.03	.09	-.08	.14	-.26*	.32**			
9 Team Identification	5.04	.72	.06	-.05	.23	-.11	.18	-.01	.44**	.20		
10 Innovation	4.86	1.58	.09	-.05	-.03	.15	.15	.49**	.11	.03	.01	

* $p < .05$ ** $p < .01$

TABLE 2.

Results.

	Mediator Model (without controls)	Mediator Model (with controls)	Dependent Model (without controls)	Dependent Model (with controls)	Dependent Model (without controls)	Dependent Model (with controls)
	Dissent		Innovation		Innovation	
Control Variables						
Team Size		-.02		.14		.08
Team Tenure		-.04		.03		.05
Professional Diversity		-.01		-.05		-.02
Identity Variance		-.06		.12		.19
Team Participation		.29*		.55**		.54**
Task Conflict		-.01		.17		.21
Predictor Variables						
Professional Identification (PI)	.32**	.37**	.12	-.06	.18	-.06
Dissent			.04	.22	.07	.25*
Team Identification (TI)					-.14	-.07
Dissent X TI					.25*	.28*
R ² Change	.10**	.11**	.02	.04	.06*	.06*

Tabled values are standardized parameter estimates. * $p < .05$ ** $p < .01$

FIGURE 1

Moderating Effect of Team Identification on Minority Dissent's Impact on Innovation

