THE NEWCOMER ABSORPTION MODEL: WHEN ARE NEWCOMERS INTEGRATED INTO THEIR TEAMS' TRANSACTIVE MEMORY SYSTEMS?

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THE NEWCOMER ABSORPTION MODEL: WHEN ARE NEWCOMERS INTEGRATED INTO THEIR TEAMS' TRANSACTIVE MEMORY SYSTEMS?

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SUMMARY

Teams often experience membership changes, requiring them to absorb newcomers into their teams. Transactive memory systems, a cornerstone of high performing teams, have to be rewired to incorporate team newcomers. Despite the drastic effects newcomers can have on team functioning, the extant literature is rooted in the newcomer perspective (e.g., Chen, 2005), and focuses almost exclusively on how newcomers become socialized into the team (e.g. Moreland & Levine, 2002). In contrast, I explore the team's perspective on newcomers, examining how the team reacts to the newcomer. This study suggests the identity threat evoked by a newcomer determines whether or not a newcomer will be successfully absorbed into the transactive memory system of the recomposed team. This research integrates two competing bodies of literature, team creativity research and social identity theory, to explain newcomer absorption and, more generally, the effects of newcomers on team functioning.

INTRODUCTION

It was summertime: June 2003. The night had finally come: NBA draft night. Many general managers considered this year's draft class to have the most potential since the famous draft of '96, in which five perennial NBA all-stars were drafted. Two teams were particularly excited about their team's chance to add a newcomer to their roster: the Cleveland Cavilers and the Golden State Warriors. Both teams held lottery picks, ensuring each of them a top NBA prospect. Both teams were looking for the spark that would turn their poor performing teams around.

Without hesitation, the Cleveland Cavilers selected LeBron James, a player widely regarded as the top talent in the loaded 2003 draft. Following their horrific 2002-2003 season, the Cleveland team was desperate for a way to turn their team around. Cleveland had lost 65 of 82 games, bottoming out most every statistical category. The hope was that the addition of newcomer LeBron would change their fortune, and in fact, it did just that – the Cavilers improved their record by 18 games in the next season and, for subsequent seasons with LeBron as a member, the once lowly Cleveland team became the one of the most feared teams in the NBA.

When the Golden State Warriors were on the clock, some of the perceived "sure" picks had already been taken. However, there was no doubt talent remained. Golden State was confident that any player they ultimately decided to choose would likely impact their team in a positive way. In the end, they excitedly chose the young Frenchman Micheal Pietrus. Pietrus was regarded as a top player in the draft because of his excellent defensive abilities and athleticism. He had already experienced professional basketball

overseas and the Warriors felt he was destined to be what their team need needed to get over the hump and become a consistent playoff contender. However, as the season began, the excitement faded quickly. Pietrus never fully adjusted to his role and the team failed to reach its goal of being a "regular" in the playoff conversation.

Sometimes, adding a newcomer helps a team succeed, and other times it can be detrimental to team functioning – whether in sports or business. This thesis explores the pathways through which newcomers affect team functioning and explains two important factors that determine whether a newcomer will be absorbed into a team: identity threat and identity strength.

Review of Team Composition

To remain competitive in a global marketplace, many organizations have shifted from an individual employee focus and now emphasize teams (Ilgen, Hollenbeck, Johnson, & Jundt, 2005; Kozolowski & Ilgen, 2006). Consequently, research has been devoted to exploring what makes some teams more effective than others. One determinant of team performance is **team composition**, the type and mix of member characteristics of a team. (Heslin, 1964; Mathieu, Tannenbaum, Donsbach, & Alliger, 2013a). The vast majority of team composition research focuses on the composition of teams at their inception (Mathieu et al., 2013a), assuming that the full team is composed at once and all members have a zero history starting point. In contrast, modern workplaces are characterized by teams with fluid membership, with variation in the strength of relations among members (Edmonson, 2012). A team member may leave his or her work team to join forces with a different work team within the organization, or he or she may leave the organization altogether (Ashforth & Mael, 1989; Edmondson,

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2012). In either case, the lost team member must be replaced, and the incumbent team members will perceive the replacement member as a **newcomer**, or outsider that joins an established group, team, or entity (Morrison, 2002).

Researchers agree that newcomers affect team functioning (e.g. Phillips 2003;Thomas-Hunt & Gruenfeld, 1998; Tortoriello, Reagans, & McEvily, 2012). However, there is currently a debate about whether newcomers are assets or liabilities to the team (e.g. Nemeth, Brown, & Rodgers, 2001; Reagans, Argote, Brooks, 2005). Researchers that view newcomers as assets claim a newcomer's dissent (by nature of their newness) from the routinized team norms will force incumbent members to better evaluate and course-correct team processes that, previous to the newcomer's arrival, had gone unquestioned as the status quo (Nemeth & Ormiston, 2007). Researchers taking a liability perspective suggest the newcomer will never fully be incorporated into their new team (Gruenfeld, Martorana, & Fan 2000). Unfortunately, researchers have not yet agreed on the conditions that lead to a newcomer's incorporation. The current thesis addresses this gap by proposing the **newcomer absorption model**, defining **newcomer absorption** as the incorporation of the newcomer into the cognitive processes of the recomposed team (See Table 1 for elaborated definitions; See Figure 1 for Newcomer Absorption Model).

Table 1
Terms and Definitions

Term	Conceptual Definition	Operational Definition
Newcomer Absorption	The degree to which a newcomer is incorporated into the cognitive and behavioral processes of a recomposed team.	N/A
Perceived Identity Threat	Something that endangers the distinctiveness derived from one's ingroup when compared to other relevant out-groups (Branscombe, Ellemers, Spears, & Doosje, 1999)	Match paired NBA rookies that played their basketball outside of the U.S. (strong identity threat) with NBA rookies that played their basketball in the U.S. (weak identity threat) before being drafted into the NBA to create a strong identity threat condition and weak identity threat condition.
Identity Strength	The amount a team identifies with their team membership	Use of NBA tenure metric that measures the incumbent's tenure in the NBA. Average NBA tenure per team is calculated and a higher average NBA tenure indicates higher team identity strength.
Knowledge Credibility	Newcomer incorporation into the part of the team's TMS that accounts for the degree to which each team members trusts the knowledge that other team members have (Lewis, 2003).	Use of 3-point assist percentage metric that indicates the percentage of one's made 3-point field goals that came from an assist by a teammate. A higher percentage demonstrates the incumbents recognize the rookie's credible basketball knowledge.
Knowledge Specialization	Newcomer incorporation into the part of the team's TMS that accounts for the degree to which team members know who knows what unique knowledge (Lewis, 2003).	Use of USG% metric that indicates the percentage of possessions the team uses the newcomer per 40 minutes. A higher percentage demonstrates the incumbents recognize the rookie 's specialized basketball knowledge.
Knowledge Coordination	Newcomer incorporation into the part of the team's TMS that accounts for the degree to which a team can effectively process knowledge (Lewis, 2003).	Use of PER metric that indicates a player's per minute statistical efficacy rating where the league average is standardized to 15. A high player efficiency rating score demonstrates that the newcomer is part of the coordination of basketball knowledge that is occurring in the TMS.
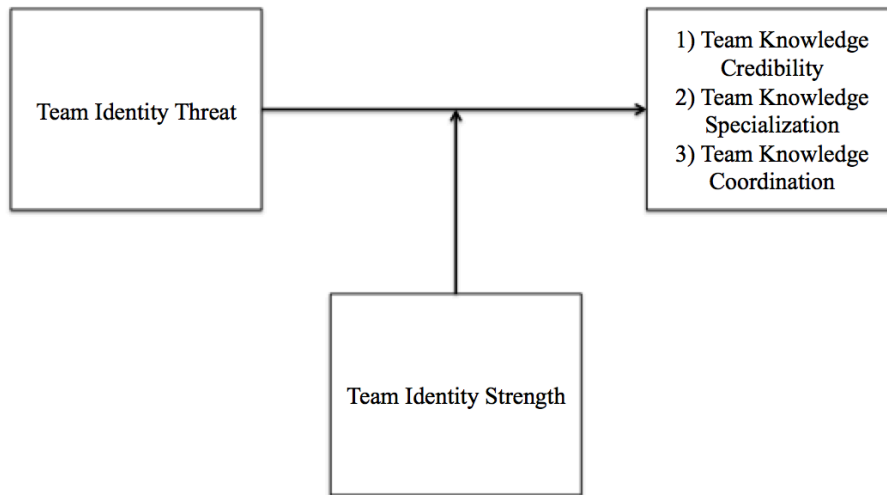
Figure 1: Impact of Identity Threat and Strength on Newcomer Absorption into Team TMS.

Newcomers and Team Cognition

In a recent book chapter, Mathieu and colleagues (Mathieu, Tannenbaum, Donsbach, & Alliger, 2013b) advocate for research on fluid team membership. Specifically, the need for researchers to address how new team members alter their recomposed team functioning is highlighted (Mathieu et al., 2013b). Mathieu and colleagues state that when making new personnel distribution decisions, one must consider the type of team the new member is joining, the KSAOs of the existing team members (as well as the new member) and the strategic distribution of human capital. (Mathieu et al., 2013b).

Ultimately, the success of a new personnel distribution decision becomes a difficult proposition to quantify. From a newcomer socialization perspective (Levine & Moreland, 1994), one would determine a success if the newcomer and incumbent team

members exchanged in a give and take in which both the newcomer and the incumbents were able to demonstrate their commitment towards their team. In a successful socialization, areas of disagreement would be reconciled through a process of assimilation (of the newcomer) and accommodation (by the incumbents). Through this process, the team will address the newcomer's needs, all while the newcomer begins to adapt the intricacies of team routines that existed long before his or her arrival. Newcomer socialization is important because if a newcomer is never socialized, how will he or she be able to demonstrate his or her ability to perform?

Work on newcomer performance finds that newcomers' initial performance is predicted by, among other things, newcomer empowerment, team expectations, and team performance (Chen, 2005). Research has also shown that proper motivation and self-regulatory processes play an important role in facilitating sustained performance for newcomers. Still, *even if a newcomer becomes socialized* and *even if they fall into a situation that primes optimal performance,* who is to say the newcomer will be able to effectively coordinate, communicate, and collaborate with the incumbents he or she has just joined? Newcomer success should not simply be measured by whether the newcomer is adapted into his or her new team; moreover, it shouldn't be measured solely on newcomer performance alone. Ultimately, the success of this new personnel distribution decision *should* be measured by *the future performance of the new team*; we want the newcomer to *enhance* the pre-existing team in some way. How can we be sure a newcomer will do this?

One way to increase the likelihood that a newcomer will be beneficial to his or her recomposed team is to ensure the newcomer's knowledge becomes built into the

recomposed team's cognition. Team cognition is broadly defined as a team's ability to process information (Hinsz, Tindale, & Vollrath, 1997). The study of team cognition encompasses many subcomponents, including multiple cognitive architectures that are integral to a team's functioning (DeChurch & Mesmer Magnus, 2010). In this thesis, I focus my attention on one of these subcomponent's of team cognition, a team's transactive memory system, and evaluate how the addition of a newcomer will reconfigure this component of a team's cognitive architecture.

Transactive memory systems (TMS), as first defined by Wegner, represent the cooperative division of labor for learning, remembering and communicating relevant team knowledge. Wegner states "it is a set of information possessed by each member of a group combined with a shared awareness of who knows what within the group" (Wegner, 1987). TMSs are broken down into three branches: knowledge credibility -- the degree to which team members trust the knowledge that other team members have, knowledge specialization – the degree to which team members know who knows what unique knowledge, and knowledge coordination – the degree to which a team can effectively process knowledge (Lewis, 2003). In order to understand the effect a newcomer has on his or her recomposed team's transactive memory system, I apply group and intergroup relations literature to two existing literatures that are readily applicable to newcomer absorption: team creativity literature and social identity theory literature.

Team Creativity and Social Identity Theory

Team creativity literature suggests that newcomers will be absorbed into the recomposed team, sparking innovation, resulting in better problem solving, and strengthening a team's overall functioning (De Dreu & West, 2001; Menon & Blount,

2003; Nemeth, Brown, & Rodgers, 2001). The work emphasizes the value of newcomers in challenging team norms, asking questions, and bringing novel experiences to the table that will induce positive change in the team (De Dreu & West, 2001; Nemeth, Brown, & Rodgers, 2001; Nemeth & Ormiston, 2007).

Alternatively, social identity theory (SIT) offers a different view. SIT suggests the addition of a newcomer will cause a divide between the incumbents and the new member that will ultimately lead to the isolation of the newcomer (Gruenfeld, Martorana, & Fan, 2000; Morrison, 2008; Reagans, Argote, & Brooks, 2005). Findings supporting the SIT view of newcomers demonstrate that when newcomers arrive to their new teams, they are seen as less valued and more argumentative compared to their peers (Gruenfeld, Martorana, & Fan, 2000). Furthermore, Phillips and colleagues demonstrate that the new information that newcomers are often brought in to provide is likely to go unheard, as teams go so far to ignore knowledge that contradicts what they already know (Phillips, 2003). Accordingly, the newcomer is prevented from fully bringing all of his or her potential to the table and, eventually, becomes detrimental to the recomposed team (Phillips, 2003; Tajfel, 1982).

Ultimately, both of these theories have received empirical support when their propositions have been applied to newcomers in teams (e.g. SIT, Doosej, Ellmers, & Spears, 1995; Gruenfeild, Martorana, & Fan, 2000; e.g. team creativity literature, Nemeth & Ormiston, 2007). Still, there has yet to be any reconciliation of these contradictory findings. This thesis aims to further clarify the newcomer absorption process by proposing moderating variables that determine when one body of literature (i.e., team creativity or social identity theory) may be more applicable than the other. Before this

can be done effectively, it is necessary to first understand what it means to be a "part of a team." To do this, I will first review the group and intergroup relations literature.

Group and Intergroup Relations

People can view themselves as individuals or as members of a group (Tajifel & Turner, 1979). Returning to the opening example, basketball star LeBron James may view himself as LeBron James (an individual) or view himself as a Cleveland Caviler (group member). When people adopt a group level view, they begin to derive their self-worth from their identity as a group member rather than their identity as an individual. To fully identify as a group member one must: 1) be cognitively aware of his/her membership, 2) evaluate that this membership is related to some value connotations, and 3) make an emotional investment in his/her awareness and evaluations (Tajfel, 1982). If the previous three conditions are met, one is said to hold a strong group identification; in this case, part of the individual's identity rests on being a member of this group.

The development of group identification happens over time; group members notice the similarities within their group and accentuate the differences between their group and other groups in order to clearly define the group and differentiate it from other groups (Tajfel, 1982; Turner, Brown, & Tajfel, 1979). This process causes clear boundaries to form between group members and non-group members (Hogg & Reid, 2006). People that share one's group membership are referred to as ingroup members, whereas people who do not share group membership are referred to as outgroup members (Tajfel, 1982; Tajfel & Turner, 1979; Turner, Brown, & Tajfel, 1979). To help maintain the image of what it means to be an ingroup member, groups develop group-related norms, values, and beliefs. The development of norms, values, and beliefs allows group

members to reiterate their allegiance to their group, thereby gaining status as representative (i.e., prototypical) group members (Feldman, 1984; Hogg & Reid, 2006). Prototypical group members behave in ways that conform to group norms, values, and beliefs (Hogg & Reid, 2006).

Group identification becomes even more salient when ingroup members are in the presence of outgroup members (Hogg, Fielding, & Darley 2005; Spears, Doosje, & Ellmers, 1997). For example, imagine the interactions between a group of Democrats and a group of Republicans at a political rally. Group identification is clearly salient. Research has demonstrated that the mere presence of an outgroup member causes ingroup members to become hyperaware of their identity, resulting in more group normative behavior (Stephan & Stephan, 1985). A dominant operating principle of social identity theory explains this finding: people are motivated to be seen as prototypical group members. When confronted with a situation that may compromise their perceived prototypically, group members further exaggerate their group's norms, values, and beliefs in order to distinguish themselves from salient outgroups (Tajfiel, 1982; Hogg & Reid, 2006; Hogg, Fielding, & Darley 2005; Spears, Doosje, & Ellmers, 1997).

Importantly, groups differ in their perceived permeability (Ellemers, van Knippenberg, de Vries, & Wilke, 1988; Tajfel & Turner, 1979). Some groups, such as race, gender, or ethnicity are perceived to be impermeable. One benefit of being perceived as an impermeable group is that group members do not have to be concerned about the addition of a newcomer (an outgroup member) and how said newcomer will affect group dynamics. However, other groups, such as work-teams, sports teams, and political parties, are considered highly permeable. Permeable groups, by definition, allow

for newcomers (outgroup members) to join their already established group. Therefore, permeable groups must understand how a newcomer will affect their group dynamics. On one hand, a newcomer could be potentially detrimental to a group because he or she may hold different underlying norms, values, and beliefs than the group they join, and these differences could spark conflict that ultimately prevent the newcomer's absorption (Gruenfeld, Martorana, & Fan, 2000). On the other hand, if the newcomer is absorbed into the recomposed team, he or she could be beneficial to a group. The newcomer then could offer a new perspective that has never before been represented within the group -- this perspective could lead to creativity (Nemeth & Ormiston, 2007). It is no wonder that those researchers with a focus on creativity and those with a focus on social identity have come to view the impact of newcomers differently – both positive and negative outcomes are possible.

Whereas, studies of newcomers have often found somewhat contradictory support that reflect the underpinnings of both team creativity literature and social identity theory, it is essential that researchers develop an integrated picture of how permeable groups will be affected by the addition of newcomers, as a change in membership will likely alter group functioning. The question then arises: why is it that some newcomers are seamlessly absorbed into the recomposed team whereas other's struggle to find their footing?

Identity Threat and Identity Strength

I answer the above question by examining two variables related to the newcomer absorption process: 1) identity threat and 2) identity strength. I will begin by explaining

how a newcomer that poses an identity threat may impact the absorption process, and then, I will explain how the strength of the identity held by the incumbent team may *further* complicate this relationship.

An **identity threat** is something that endangers the distinctiveness derived from one's ingroup when compared to other relevant out-groups (Breakwell, 1986; Branscombe, Ellemers, Spears, & Doosje, 1999; Smeekes & Verkuyten, 2013). Since identity is central to a team, and many people derive their self-worth from their team membership, it is reasonable to state that a threat to an established team identity would be costly. In fact, research has shown that when teams are confronted with an identity threat, they will engage in specific protection mechanisms in an attempt to maintain their original team identity (Jetten & Hutchison, 2011; Shepherd, Kay, Landau, & Keefer, 2011). How does this relate to teams and the addition of a newcomer?

I argue that the addition of a newcomer may qualify as an identity threat if he or she is perceived to hold extremely different norms, values, and beliefs than the team that he or she will be joining. I propose that the incumbents' use of protection mechanisms (e.g., the devaluation of the newcomer; Hutchison, Abrams, Gutierrez, & Viki, 2008) will make it more difficult for the newcomer to be absorbed into the recomposed team. However, if the newcomer does not induce an identity threat, incumbent protection mechanisms will not be necessary and the newcomer will be more easily absorbed into the recomposed team.

> *H1: Newcomer absorption into team transactive memory (H1a: knowledge*
>
> *credibility, H1b: knowledge specialization, & H1c: knowledge coordination) is*

greater when the newcomer poses a weak, rather than strong, identity threat to

the team.

H1 assumes that the incumbent team members hold their team's identity in high regard – in other words, that the identity strength of the team members is high. I define **identity strength** as the importance of the respective team membership to an individual's sense of self. Often times, it is assumed that one's identity strength with his or her team will be high simply because he or she holds membership within said team. However, this is not always the case. It is possible that one holds a team membership, yet still does not strongly identify with said team. For example, a construction worker can work in his crew without deriving a sense of purpose from his crew membership; a teacher can attend faculty meetings with a team of teachers without viewing the team meetings as consequential to her sense of self-worth; the examples abound. Hypothesis one rests on the fact that the incumbent members will actively refute and isolate the newcomer in order to protect members from a possible threat to the team's sense of identity. However, this behavior may differ based on a team's existing identity strength at the time of the newcomer joining the team.

It is understandable that when a team's identity strength is high, a strong identity threat evoked by the newcomer will be seen as an attack on the self, likely harming the absorption process. Consequently, it stands to hold that in situations of high identity strength, a newcomer that poses a weak identity threat will be more readily absorbed compared to one that poses a strong identity threat. However, this may not be the case in situations of low identity strength. If a team does not strongly hold a sense of identity, it is reasonable to assume that they would not feel as threatened by a member that is

different from them. In these cases, the *benefits* of being different (e.g., new ideas, different perspectives, etc.) that creativity literature often highlights are more likely to be recognized as such. Consequently, when a team's identity strength is low, a newcomer that poses a strong identity threat is likely to be *more* welcomed *because* of his differences, compared to a newcomer that poses a weak identity threat and effectively adds more of same to the already existing team.

> *H2: The impact of identity threat on newcomer absorption into team transactive memory (H2a: knowledge credibility, H2b: knowledge specialization, & H2c: knowledge coordination) depends on team identity strength. In strongly identified teams, identity threat is negatively related to newcomer absorption, whereas in weakly identified teams, identity threat is positively related to newcomer absorption.*

METHODOLOGY

Sample

I have chosen to conduct this study using archival data from the National Basketball Association (NBA). Since the crux of the research question addresses a newcomer's absorption into his or her recomposed team's transactive memory system, the NBA provides an ideal platform for data collection: newcomers are regularly introduced into teams during the annual NBA draft. Additionally, all of the newcomers and teams alike have basketball knowledge that must be shared and coordinated within a transactive memory system. Finally, the NBA draftees vary in the level of identity threat they present to their recomposed team (further explained in "Perceived Identity Threat"

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section). Ultimately, the NBA proves to serve as a rich source of archival data to study newcomer absorption.

I operationalize a newcomer as an NBA rookie. A rookie is defined as a player that is playing his first season in the NBA. For clarity, I refer to the rookie as the "newcomer", the team the rookie is joining as the "incumbent team," and the team that results from the addition of the newcomer to the incumbent team as the "recomposed team." The sample I analyzed consists of NBA rookies and incumbent teams from the 2000-01 NBA season up to and including the 2014-15 NBA season. The metrics (described in greater detail below) needed to appropriately analyze newcomer absorption were only available during this fifteen-year span.

An a priori power analysis was conducted using GPOWER (Erdfelder, Faul, & Buchner, 1996) to estimate the sample size needed to find support for the proposed hypotheses. No previous literature has examined the relationship between identity threat and newcomer absorption, however, there has been literature that has examined the relationship between identity and newcomer absorption (Rink & Ellemers, 2009). Therefore, this literature will serve as the basis for my power analysis.

Assuming an alpha of .05, a desired power of .80, and an effect size $f = .534$ [based on Rink and Ellemers (2009) finding that a team's sense of identity is negatively correlated with the absorption of a newcomer's knowledge $r = -.59$], I will need 15 teams per level of identity threat (30 teams in total) to find an effect. To find an interaction

effect, and maintain my desired power, I will need 30 teams per level of identity threat, 60 teams in total (Simonsohn, 2014).[1]

Study Design

The proposed model consists of two independent variables. The first independent variable, identity strength, is a continuous variable. The second independent variable, perceived identity threat, is a categorical variable with two levels (weak identity threat, and strong identity threat). Importantly, the study employs a match-paired design when assigning newcomers to the weak and strong identity threat levels. Specifically, the match-paired design controls for two covariates that may impact newcomer absorption: the capability of the newcomer and the capability of the team the newcomer joins. Additionally, the proposed model includes a covariate that would otherwise be uncontrolled in the match-paired design: the position of the newcomer. Finally, the model has three dependent variables: knowledge credibility, knowledge specialization, and knowledge coordination. More information on the independent variables, covariates, and dependent variables can be found below in the measures section of the methods.

Measures

Perceived identity threat. The definition of an identity threat is "something that endangers the distinctiveness derived from one's ingroup when compared to other relevant out-groups" (Brascombe et al., 1999). The ingroup in the current study will always be the NBA basketball team the newcomer is joining. Therefore one must ask, what does it mean to be part of an NBA basketball team? One predominate feature that spans all NBA teams is the American-centric culture. The American-centric culture in the

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[1] Because of the time-span restriction, I was only able to obtain an *N* of 58, two teams short of the desired power-analysis approximation.

NBA is exemplified by, among other things, toughness and physicality (Messina, 2012; Rosenthal, 2015), a reliance on superstars (Tramel, 2015), and the dream of a lavish lifestyle (Badenhausen, 2015; "NBA Player Contracts", 2015). The culture, that ever-so-replicates our American ideologies, developed because the NBA is, and has been, a league of predominantly American players. Currently the NBA is 77% American and foreign players did not begin to play in the NBA until the late 1980s ("Record 101", 2014).

Recently, however top tier foreign players have made the transition from other professional, basketball leagues to the NBA ("Record 101", 2014). With them, they bring a distinct culture; one that is exemplified by, among other things, teaching and learning (Ritter, 2012), team-oriented play (Fallon, 2009; "What to expect", 2015) and the development of fundamental skills ("What to expect", 2015). Whereas both American and foreign players play the same game and play by the majority of the same rules, the different cultures surrounding the game is apparent and acknowledged (Ritter, 2012; Fallon, 2009; Wilbon, 2011). Basketball in the NBA is different from basketball in professional leagues that exist in Europe, Australia, or Africa. This distinction is important, as it is an integral part of Branscombe's definition of an identity threat. He states that an identity threat is present when something endangers the distinctiveness of one's ingroup (Brascombe et al, 1999).

Consequently, and with just cause, an identity threat to an NBA team is present when a foreign-based player is drafted onto an NBA team. Following the logic presented above, foreign-based players create an identity threat because they challenge the distinctiveness of what it means to be on an NBA team compared to teams in other

(foreign) professional basketball leagues. The identity of an NBA team that has drafted a foreign player becomes less clear, when compared to the identity of an NBA team that has drafted an American player.

This example of an identity threat in the NBA fits suitably within the parameters of traditional matched pairs designs. In this design, every foreign player that has been drafted from 2000— 2014 will be paired with an American player that was drafted in the same year to the same team (e.g., an foreign-based player drafted in 2003 by the Orlando Magic is paired with an American player drafted in 2003 by the Orlando Magic). This design creates the identity threat metric, a categorical variable with two conditions – the strong identity threat condition, which will be the condition that exists exclusively of foreign-based players, and the weak identity threat condition, which will be the condition that exists exclusively of American-based players. Importantly, there are covariates that could affect the equality of these pairings and confound future analyses. In the covariates section, I will explicitly explain the pairing process and how this process controls for these covariates.

Identity strength. Previous research has noted that identity develops over time, as individuals learn the norms, values, and beliefs of their own group and are then able to contrast these norms values and beliefs with other relevant outside groups (Tajfel, & Turner, 1979). Furthermore, positive comparisons with relevant outgroups generally strengthens one's identity, and the NBA compares very favorably to other professional basketball organizations (Tajfel, & Turner, 1979). The NBA affords its players the most riches, opportunities for travel, and lavish lifestyles compared to all other professional basketball organizations (Badenhausen, 2015; "NBA Player Contracts", 2015).

Consequently, with these two points in mind, I argue that the length of time one is a member of the NBA serves as a good proxy for the strength of his identity one holds with the NBA – as one spends more time in the NBA, he identifies more strongly with the NBA.

I measure identity strength through archival data. Specifically, I am interested in how strongly teams identify with their NBA membership. To assess identity strength, first, I gathered each team's roster prior to the newcomer's arrival. Second, I collected data that indicated how long each player had been in the National Basketball Association at the time of the newcomer's arrival - I called this data NBA tenure. Third, I computed the mean NBA tenure for each NBA team; the mean NBA tenure for each respective team served as the team's metric of identity strength.

Dependent Variables

Transactive memory system. In many jobs a team's TMS consist of the distributed knowledge that is essential to the performance of the work team. In basketball, this is no different. John Wooden, considered the greatest coach in college basketball history, identifies the critical role that basketball knowledge plays in success on the basketball court:

> "*As a new coach, Wooden says he thought coaching meant pointing and directing players where they needed to be on the court. Five or six years into his career, he realized he was leading by assumption. **He assumed his players had the basics under their belt; he assumed they knew what was happening in a game** [emphasis added]. That's when he learned the only way to close these gaps was to listen to his players. **Once he found out where they were in their learning and***

***basketball knowledge, he could lead and give them direction** [emphasis added]"*
(Maxwell, 2011, para. 12).

This anecdote highlights the importance of understanding what teammates know –
their basketball knowledge; accordingly, the dependent variables in the current study will
assess how a newcomer's knowledge is absorbed into the recomposed team's transactive
memory system. Specifically, I will use one metric for each facet of a transactive
memory system (i.e., knowledge credibility, knowledge specialization, and knowledge
coordination). All three of the metrics will come from archival data that span the first full
year the newcomer played with his team. Described below is the metric of choice, and
the justification for the use of said metric.

Knowledge Credibility. Knowledge credibility is defined as members' beliefs
about the reliability of other members' knowledge (Lewis, 2003). Knowledge credibility
was operationalized using the proxy three-point assist percentage. Specifically, the three-
point assist percentage metric quantifies the percentage of three point shots a newcomer
takes that came from a teammate's assist. A three point shot takes a high degree of skill
and knowledge of basketball, consequently when a teammate assists a newcomer in
scoring a three point basket, he is not only recognizing the newcomer's knowledge in this
area, but also demonstrating that he can rely on the newcomer to us his knowledge to do
what is best with the basketball. Alternatively, when a newcomer is shooting a three point
shot without an assist from his teammate, the team is not actively demonstrating that they
can rely on the newcomer to us his knowledge to do what is best with the basketball

Knowledge Specialization. Knowledge specialization is defined as the
differentiated structure of member's knowledge (Lewis, 2003). Knowledge specialization

was operationalized in this study using the proxy usage rate. Specifically, the usage rate metric quantifies the percentage of times a newcomer is incorporated in any given offensive play that a team runs[2]. If the recomposed team uses the newcomer frequently, the team would be said to be recognizing the newcomer's specialized knowledge in their transactive memory system.

Knowledge Coordination. Knowledge coordination is defined as the effective, orchestrated processing of knowledge (Lewis, 2003). Knowledge coordination was operationalized in this study using the proxy player-efficiency rating. Specifically, player efficiency rating is an advanced statistic that "sums up all a player's positive accomplishments, subtracts the negative accomplishments, and returns a per-minute rating of a player's performance" (Hollinger, 2005; Hollinger, 2015– See Appendix 1 for PER formula). Efficiency has long been linked to coordination (e.g., Regans & Brooks, 2005). Consequently, one can view the newcomer's player efficiency rating as a descriptor that indicates whether not only the incumbents have absorbed and can coordinate with the newcomer's basketball knowledge, but also, if the newcomer has absorbed and can coordinate with the incumbents' basketball knowledge. Importantly, the PER metric is standardized with a league wide average of fifteen; any newcomer that has a PER metric above fifteen would be coordinating with his or her new team better than to be expected.

Covariates

Capability of team, year newcomer arrives, and capability of the newcomer.
A match-paired design allows for covariates to be controlled by equally distributing their

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[2] Usage Rate = {[Field Goals Attempted + (Free Throws Attempted x 0.44) + (Assists x 0.33) + Turnovers] x 40 x League Pace} divided by (Minutes x Team Pace)

variances across conditions. As mentioned above, I am creating two conditions in my match-paired design, a strong identity threat condition and a weak identity threat condition. The first covariate I must account for within this design is the capability of the team the newcomer joins. A newcomer may be absorbed differently if he joins a team that is very capable, compared to a team that is not as capable. To control for this, I paired players that were drafted by the same team in the same year. For example, Dante Exum, drafted by the Utah Jazz in 2014 was paired with Rodney Hood, drafted by the Utah Jazz in 2014. Dante Exum was placed in the strong identity threat condition because he entered the NBA from country outside of the U.S., whereas Rodney Hood was placed in the weak identity threat condition because he entered the NBA from an American school. Importantly, this pairing style also distributes variance that may be due to the year the newcomer arrives into the NBA across the two conditions. Table 2 presents the names of all matched players and their position.

Table 2

Player Sample with Corresponding Draft Number and Year

	Players	
Year	Overseas	USA
2000	Dalibor Bagaric (24)	Marcus Fizer (4)
2000	Jake Tsakalidis (25)	Daniel Santiago (61)
2000	Soumaila Samake (36)	Kenyon Martin (1)
2000	Olumide Oyedeji (42)	Desmond Mason (17)
2001	Pau Gasol (3)	Shane Battier (6)
2001	Vladimir Radmanovic (12)	Earl Watson (39)
2002	Yao Ming (1)	Juaquin Hawkins (61)
2002	Nikoloz Tskitishvili (5)	Vincent Yarbrough (32)
2002	Jiri Welsch (16)	Mike Dunleavy (3)
2003	Sasha Pavlovic (19)	Mo Williams (47)
2003	Boris Diaw (21)	Travis Hansen (37)
2003	Zaza Pachulia (42)	Keith Bogans (43)
2004	Viktor Khryapa (22)	Sebastian Telfair (13)
2004	Andres Nocioni (61)	Luol Deng (7)
2005	Jose Calderon (61)	Charlie Villanueva (7)
2006	Thabo Sefolosha (13)	Tyrus Thomas (4)
2006	Sergio Rodriguez (27)	LaMarcus Aldridge (2)
2007	Marco Belinelli (18)	Brandon Wright (8)
2008	Nicolas Batum (25)	Greg Oden (1)
2008	Goran Dragic (45)	Robin Lopez (15)
2009	Omri Casspi (23)	Jon Brockman (18)
2009	Jonas Jerebko (39)	Austin Daye (15)
2010	Kevin Seraphin (17)	Trevor Booker (12)
2011	Enes Kanter (3)	Alec Burks (12)
2011	Jan Vesely (6)	Chris Singleton (18)
2011	Bismack Biyombo (7)	Kemba Walker (9)
2012	Pablo Prigioni (61)	Chris Copeland (61)
2013	Rudy Gobert (27)	Trey Burke (9)
2014	Dante Exum (5)	Rodney Hood (23)

Additionally, the strong identity threat condition and weak identity threat conditions consisted of players that are similarly capable because the newcomer's capability has the potential to confound analyses of newcomer absorption. For example, teams may be more willing to incorporate a player that is seen as extremely capable

compared to a player seen as less capable. Therefore, this is a third covariate (along with

capability of the team and year the newcomer arrives) that was accounted for in my

design. Since I paired people that were drafted into the NBA, this was a rather easy

covariate to account for in a matched-pairs design. The order a player is drafted

represents the projected capability of the player. For example, the number five draft pick

is projected to be more capable than the number twenty draft pick. Therefore, when I

created the two conditions of identity threat, I match-paired a foreign player and

American player and chose the pair that created the smallest (absolute-valued) distance

between their draft pick numbers (e.g. I would match the number 4 draft pick with the

number 7 draft pick, instead of matching number 4 draft pick with the number 20 draft

pick – all else being equal). This distributed the variance accounted for by one's

capability equally across the two conditions. To confirm this, I conducted a paired

samples t-test on average pick number between the strong identity threat condition and

the weak identity threat condition and the difference between conditions was not

significant, $t(55.632) = -0.640$, p $>.05$.

Position of newcomer. The fourth and final covariate I controlled for was the

position the newcomer played on the recomposed team. It is important that I controlled

for the newcomer's position because there are five different positions that a player can

play (i.e., point guard, shooting guard, small forward, power forward, and center), and

each position requires different basketball knowledge. Accordingly, I controlled for

position by coding each newcomer's position from a 1 to a 5, where 1 equals point guard,

2 equals shooting guard, 3 equals small forward, 4 equals power forward, and 5 equals

center. Then, when I ran my model to test for newcomer's absorption, I added in the

nominal position term to account for any variance that is due to the player's positional role on the team.

Analytic Approach

I used path analysis to test the significance of the hypothesized relationships between 1) identity threat and absorption into the three TMS components and 2) the interaction of identity threat and identity length and absorption into the three TMS components, while controlling for all other possible relationships. The analysis was conducted in R using the "lavaan" package (Rosseel, 2012). Importantly, the number of paths and variance/covariance relationships possible in the proposed model equaled the total possible degrees of freedom (28). Consequently, the model fit could not be estimated because the model was just identified.

RESULTS

Table 3 summarizes correlations, means and standard deviations for all key study variables. Examining the correlations shows the three facets of TMS are weak to moderately related (credibility and specialization, $r = 0.33$, $p < .05$; credibility and coordination, $r = .24$, $p > .05$; specialization and coordination, $r = .37$, $p < .05$). Importantly, identity strength varied in our sample ($M = 4.34$, $SD = 1.39$).

Table 3

Means, Standard Deviations, and Bivariate Correlations of Study Variables (N = 58)

Variable	*M*	*SD*	Min	Max	1	2	3	4
1. Identity Threat	--	--	--	--	--			
2. Identity Strength	4.34	1.49	1.21	9.53	0	--		
3. Knowl Credibility	0.61	0.43	0	1	-0.07	-0.13	--	
4. Knowl Specialization	17.27	3.82	10.4	25.3	-0.27	-0.07	0.33*	--
5. Knowl Coordination	11.62	3.59	3.3	20.6	-0.26	0.24	-0.08	0.37**

Note: Knowl = Knowledge.

Controls

The position the newcomer played on his recomposed team was included as the only control in the model. Position was significantly related to whether the newcomer's knowledge would be seen as credible, $\beta = -0.17$, $p < .001$, and whether the team could coordinate their knowledge with the newcomer, $\beta = 0.70$, $p < .05$, but position did not impact whether the team recognized the newcomer's specialized knowledge, $\beta = -0.35$, $p > .05$.

Identity Threat and Newcomer Absorption

H1 posited newcomer absorption into a team's transactive memory system (H1a: knowledge credibility, H1b: knowledge specialization, & H1c: knowledge coordination) would be greater when the newcomer posed a weak rather than strong identity threat to the recomposed team. To test Hypothesis 1 (See Table 4; Figure 2), I included a path from perceived identity threat to knowledge credibility (H1a), knowledge specialization (H1b), and knowledge coordination (H1c). With regards to Hypothesis 1a, results indicate that the link between identity threat and knowledge credibility was not

significant, $\beta = -0.02$, $p > .05$. This suggests the presence of an identity threat did not

impact whether the recomposed team viewed the newcomer's knowledge as credible,

thus not supporting H1a. In support of Hypothesis 1b, results indicate that the link

between identity threat to knowledge specialization was negative and significant, $\beta = -$

1.95, $p < .05$. Specifically, the stronger the identity threat posed by the newcomer, the

less likely the newcomer's knowledge was to be recognized as specialized within the

recomposed team's transactive memory system. In support of Hypothesis 1c, the link

between identity threat and knowledge coordination was negative and significant, $\beta = -$

2.00, $p < .05$. Specifically, the stronger the identity threat posed by the newcomer, the

less likely the recomposed team was able to coordinate their knowledge.

Table 4
Path Coefficients of Newcomer Absorption Model

	Model 1		
Predictors	Knowledge Credibility	Knowledge Specialization	Knowledge Coordination
Identity Threat	-0.02	-1.95*	-2.00*
Identity Strength	0.04	0.51	0.28
Identity Threat x Identity Strength	-0.13*	-1.31*	0.49
Position	-0.17***	-0.35	0.70*
R^2	0.34	0.15	0.20

Note: N = 58 teams. *= $p < .05$, **= $p < .01$, *** $p = < .001$. Terms are beta weights in a SEM path analysis.
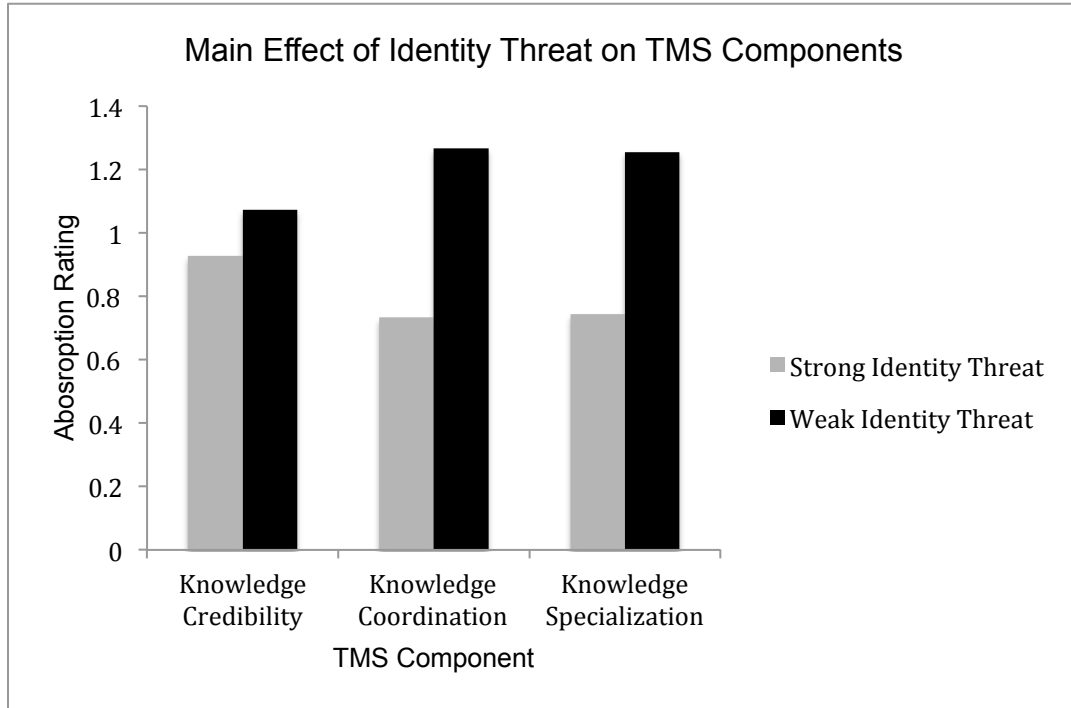
Figure 2. Main effects of Identity Threat on Knowledge Credibility (Hypothesis 1a),
Knowledge Specialization (Hypothesis 1b). Knowledge Coordination (Hypothesis 1c).
Note: Observed variables were scaled and linearly transformed to fit into a single figure.
Identity threat produced a significant main effect for two of the three TMS components
(i.e., Knowledge Coordination and Knowledge Specialization).

Identity Threat by Identity Strength and Newcomer Absorption

Hypothesis 2 states that the impact of identity threat on newcomer absorption into

a team's transactive memory (H2a: knowledge credibility, H2b: knowledge

specialization, & H2c: knowledge coordination) depends on team identity strength.

Specifically, in strongly identified teams, I posited identity threat would be negatively

related to newcomer absorption, whereas in weakly identified teams, I posited identity

threat would be positively related to newcomer absorption. To investigate this moderated

effect, I included a path to test the relationship between the interaction of perceived

identity threat and identity strength and the three TMS outcomes. Specifically, the

interaction term is a product of the following centered variables: identity threat and identity strength.

Including the interaction term tests if the relationship between identity threat and the TMS outcomes differ depending on a team's identity strength. Importantly, for hypothesis 2, this test is necessary, but not sufficient. Whereas including the interaction term tests for evidence of moderation, it does not assess whether each simple slope is significantly different from zero in the hypothesized direction. Consequently, to obtain support for my hypothesis, after adding the interaction term to the model, I decomposed the interaction and conducted a simple slopes analysis to determine the directionality and significance of each simple slope.

With regard to Hypothesis 2a, the results indicate that the link between the interaction of identity threat and identity strength and knowledge credibility was negative and significant, $\beta = -0.13$, $p < .05$. However, after decomposing the interaction, I found that when identity strength was low, $t(54) = 1.20$, p >.05, and when identity strength was high, $t(54) = -1.47$, p >.05, the slopes between identity threat and knowledge credibility were not significantly different from zero (See Table 5; Figure 3). This suggests that although the relationship between identity threat and knowledge credibility depended on identity strength, the simple slopes for both conditions (i.e. high identifying and low identifying teams) did not differ from zero. Since the simple slopes were not statistically different from zero, the claim that in strongly identified teams, identity threat would be negatively related to newcomer absorption, whereas in weakly identified teams, identity threat would be positively related to newcomer absorption (H2a) was not supported.

Table 5

Simple Slope Analysis of Identity Threat on Knowledge Credibility at High Identity Strength and Low Identity Strength

	Model 2a: Knowledge Credibility		
Predictors	Simple Slope	S.E.	t-value
Low Identity Strength	0.18	0.15	1.20
High Identity Strength	-0.22	0.15	-1.47

Note: Test of simple slopes. N = 58 teams. *= $p < .05$, **= $p < .01$, *** $p = < .001$.
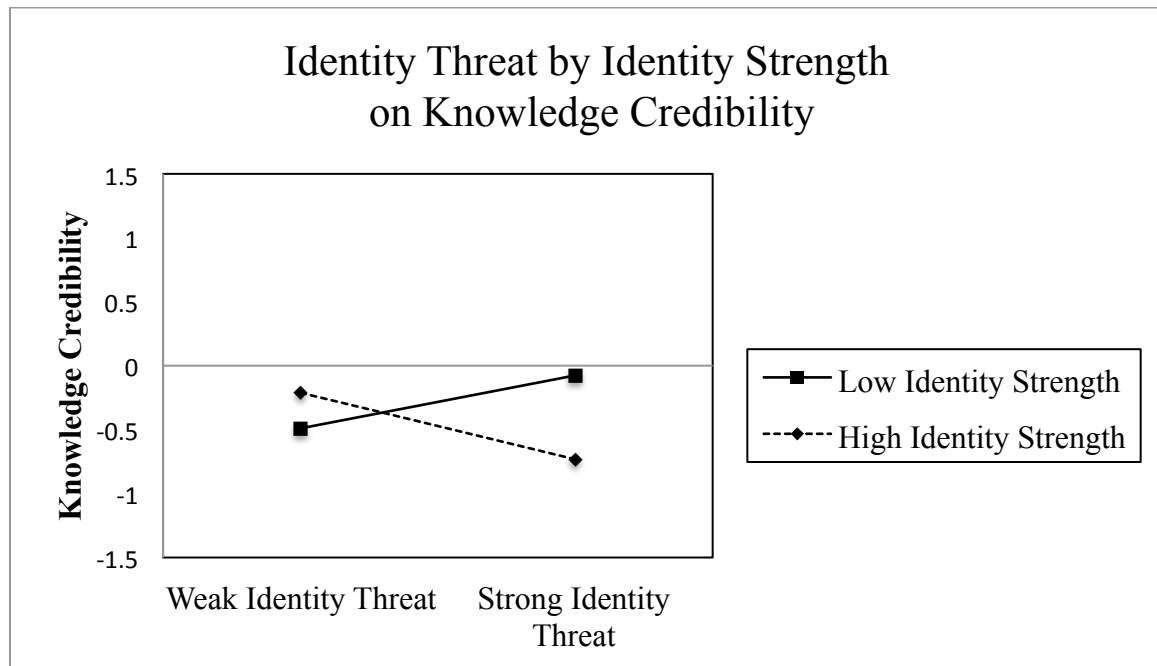

Figure 3. Interaction effect of Identity Threat by Identity Strength on Knowledge Credibility (Hypothesis 2a). Note: All observed variables were scaled. Analysis of simple slopes reveal the slopes are not significantly different from zero for teams with high identity strength, t(58) = -1.47, p > 0.5, and not significantly different from zero for teams with low identity strength, t(58) = 1.20, p > 0.5.

With regard to Hypothesis 2b, the results indicate that the link between the interaction of identity threat and identity strength and knowledge specialization was also

negative and significant, $\beta = -1.31, p < .05$. However, this time, after decomposing the

interaction I found partial support for Hypothesis 2b; when identity strength was low, the

simple slope between identity threat and knowledge credibility was not significantly

different from zero, $t(54) = 0.00$ p $> .05$, however, when identity strength was high, the

simple slope between identity threat and knowledge credibility was negative and

significant as predicted, $t(54) = -3.00$, p $< .05$ (See Table 6; Figure 4).   This suggests that

although the relationship between identity threat and knowledge credibility depends on

identity strength, only the simple slope for one condition (i.e. high identifying teams)

differed from zero in the hypothesized direction. Since only the simple slope for high

identifying teams was statistically different from zero (in the hypothesized direction),

only partial support can be provided for Hypothesis 2b. Specifically, whereas the claim

that in strongly identified teams, identity threat would be negatively related to newcomer

absorption is supported, the claim that in weakly identified teams, identity threat would

be positively related to newcomer absorption is not supported.

Table 6
*Simple Slope Analysis of Identity Threat on Knowledge Specialization at High Identity
Strength and Low Identity Strength*

Model 2b: Knowledge Specialization			
Predictors	Simple Slope	S.E.	t-value
Low Identity Strength	0.00	1.30	0.00
High Identity Strength	-3.91	1.30	-3.00*

Note: Test of simple slopes. N = 58 teams. *= p < .05, **= p < .01, *** p = < .001.
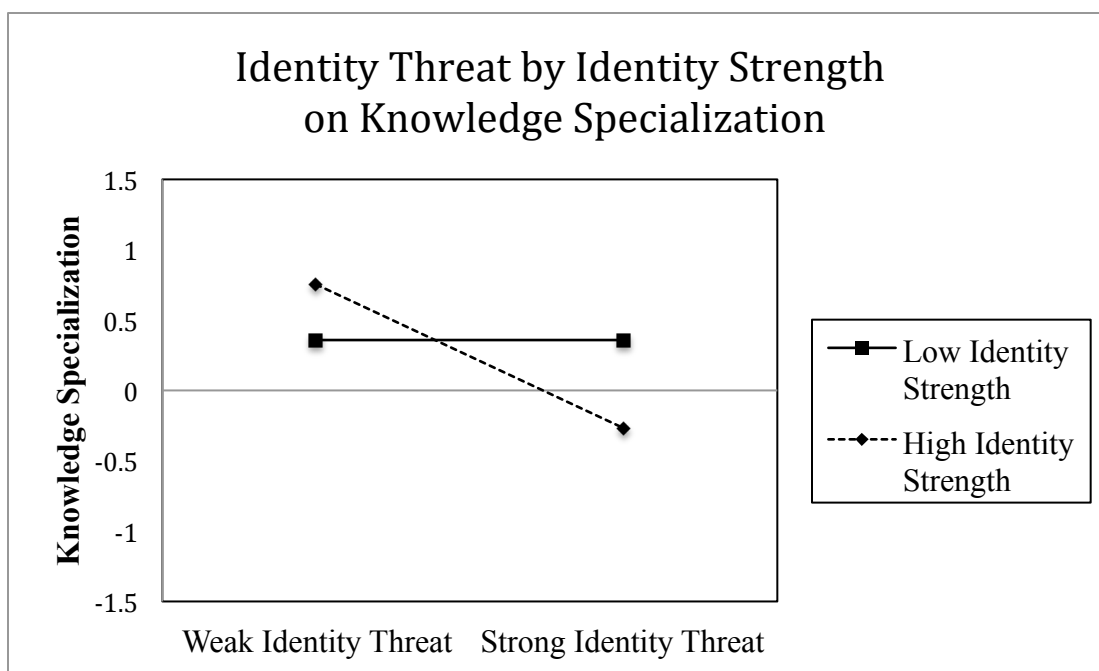
Figure 4. Interaction effect of Identity Threat by Identity Strength on Knowledge Specialization (Hypothesis 2b). Note: All observed variables were scaled. Analysis of simple slopes reveal the slopes are significantly different from zero for teams with high identity strength, $t(58) = -3.00$, $p < 0.5$, but not significantly different from zero for teams with low identity strength, $t(58) = 0.00$, $p > 0.5$.

Finally, with regard to Hypothesis 2c, the results indicate that the link between the interaction of identity threat and identity strength and newcomer absorption into the TMS coordination was not significant ($\beta = 0.49$, $p > .05$). Although the interaction was not significant, simple slope analysis was still conducted, however the analysis revealed that when identity strength was low, $t(54) = -2.29$, $p > .05$, and when identity strength was high, $t(54) =$

-1.08, $p > .05$, the simple slopes between identity threat and knowledge coordination were not significantly different from zero, thus Hypothesis 2c was not supported (See Table 7; Figure 5). This suggests the interaction between identity threat and identity

strength tells us very little about how the newcomer will coordinate with his or her new

team.

Table 7
Simple Slope Analysis of Identity Threat on Knowledge Coordination at High Identity Strength and Low Identity Strength

Model 2c: Knowledge Coordination			
Predictors	Simple Slope	S.E.	t-value
Low Identity Strength	-2.72	1.19	-2.29
High Identity Strength	-1.28	1.19	-1.08

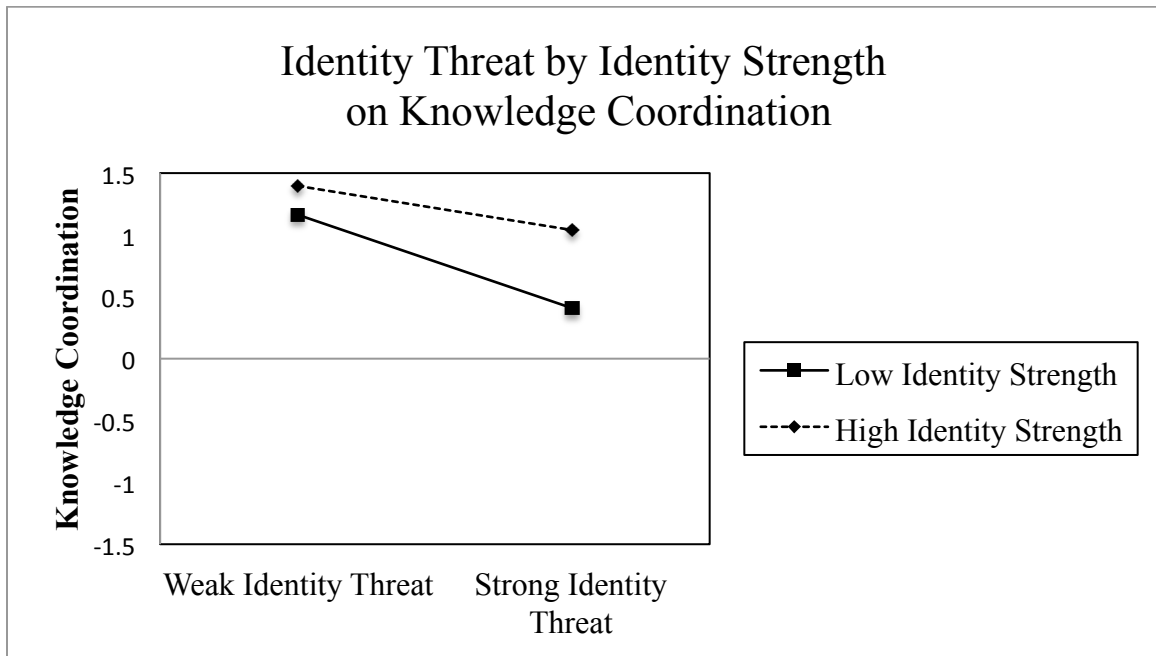Note: Test of simple slopes. N = 58 teams. *= $p < .05$, **= $p < .01$, *** $p = < .001$.

Figure 5. Interaction effect of Identity Threat by Identity Strength on Knowledge Coordination (Hypothesis 2c). Note: All observed variables were scaled. Analysis of simple slopes reveal the slopes are not significantly different from zero for teams with high identity strength, $t(58) = -1.08$, $p > 0.5$, but not significantly different from zero for teams with low identity strength, $t(58) = -2.29$, $p > 0.5$.

DISCUSSION

Under what conditions will a newcomer be absorbed into his or her recomposed team? This thesis investigated how identity impacts knowledge that is absorbed into the recomposed team's transactive memory system. I demonstrate that the recognition of a newcomer's specialized knowledge depends on two characteristics. The first characteristic is the level of identity threat the newcomer poses to the incumbent team. The second characteristic is the strength of the incumbents' team identity.

Whereas the findings suggest that identity is an important variable to consider when teams manage membership changes, one must recognize that team identification impacts components of the transactive memory system differently. Specifically, the findings suggest that when a newcomer poses an identity threat to the recomposed teams, the recomposed teams will be less likely to recognize the newcomer's specialized knowledge (H1b) and, furthermore, will be less likely to spend time coordinating their knowledge with the newcomer (H1c). These findings advance the literature because they help explain why in some cases a newcomer's knowledge appears to never reach the incumbents (Gruenfeld, Martorana, & Fan, 2000), whereas in others, the newcomer's knowledge appears to be the catalyst for large-scale innovations (Nemeth & Ormiston, 2007). Interestingly, the perceived credibility of a newcomer's knowledge is not impacted by the threat the newcomer poses to the incumbent team's identity. Although this finding did not support Hypothesis C, it helps explain why research on implementing minority voices – such as authentic devil advocates – are successful (Nemeth, Brown, Rodgers, 2001). In these situations, the incumbents are forced to recognize the specialized knowledge and coordinate with a dissenting voice in an attempt to bring

about new perspectives. As the current research shows, the threat a newcomer poses does not impact the credibility of his or her knowledge, thus explaining the innovative discussions that do arise when opposing parties share their differing views (Nemeth, Brown, Rodgers, 2001).

Importantly, accounting for a team's identity strength sheds more light on the relationship between a newcomer's identity threat and the incumbents' perception of the newcomer's specialized knowledge. The findings, which lend partial support to Hypothesis 2b, suggest that when incumbent's feel weakly identified with their own team, a threat to this "weak" identity does not impact how they view the specialized knowledge of the newcomer, however, when team identity is strong, a threat results in the team's failure to recognize the newcomer's specialized knowledge. This is important because it is the first study to show the possible benefits of a team having a "weak" identity, a topic touched on in more detail later in this discussion. Unexpectedly, identity strength did not interact with identity threat to impact the team's ability to evaluate the credibility (H2a) of the newcomer's knowledge, nor did the interaction with identity threat impact how the team coordinates knowledge in the hypothesized directions (H2c). However, these non-findings could be justified by revisiting social identity literature – interestingly, the literature never suggests that identity plays a critical role in credibility or coordination – rather that the differences in identity serve as a barrier that separates individuals before credibility judgments and coordination behaviors can begin to be established. Consequently, when taken in sum, it is understandable why the dependent variable that dealt with recognition and embracing of unique knowledge, is the variable that is most impacted by an independent variable that captures identity threat.

Theoretical Implications

The framework for the proposed newcomer absorption model pulls strongly from the tenants of both social identity theory and team creativity literature to further the most current models related to teams, newcomers, and the absorption processes. Specifically, this research makes four important contributions that advance the current literature.

First, the newcomer absorption model is the first model to apply two competing literatures to the newcomer absorption process, social identity theory and creativity literature, to help illuminate why in some cases newcomers are found to be beneficial to team related processes whereas in other cases newcomers appear to be detriments. Before the current study, research nested in social identity theory often found newcomers to disrupt teamwork due to their differing values, beliefs, and core tenants (Marques, Abrams, & Serôdio, 2001), whereas research nested in creativity frequently demonstrated that newcomers are the fuel to a team that drives creative ideas, often by offering a new perspective (Nemeth & Ormiston, 2007). Conceptually, this model pushes forward the idea that *both* outcomes are possible and offers key identifying variables (i.e., identity threat and identity strength) as plausible determinants of which outcome will occur in a given situation.

Second, I offer a new perspective on newcomers and their absorption process that is different from the existing literature. Previous prominent research on newcomers has demonstrated the absorption process by capturing how much a newcomer is assimilated or accommodated by his or her new team (i.e., newcomer socialization, Levine & Moreland, 1994), and by investigating how the newcomer performs tasks within his or her own team (Chen, 2005; Chen & Klimoski, 2003). The current model distinguishes

itself by asking the question: how does the newcomer integrate him or herself within the processes that are already present within the existing team? The distinction is important as it is agreed upon that new team members impact the processes of their recomposed teams (e.g. Phillips 2003;Thomas-Hunt & Gruenfeld, 1998; Tortoriello, Reagans, & McEvily, 2012), however very little research has taken this perspective and investigate how the processes are impacted. In this vein, this study serves as a first stepping-stone and demonstrates how newcomers impact the cognitive processes within their new team.

Third, this thesis furthers an important push to account for the past histories of the teams we study; even if we only think we are interested in a brief snapshot in time (e.g., Lewis, 2004). This thesis investigated an incident that could have been viewed as isolated snapshot in time: the newcomer's absorption into a team's architecture. The support for Hypothesis 2a, which is devoid of a temporal component, indicates that newcomer's that pose a strong identity threat are less likely to be absorbed compared to newcomers that pose a weak identity threat.

Importantly, if the current study stopped there, and did not consider the past history of the team, the true story would never have been brought to light. In reality, the relationship between the threat evoked by the newcomer and the absorption process depends on the identity strength of the incumbents, something that develops over time. This is a distinct example that highlights the importance of considering how a team's past history will impact their decisions and readiness to perform in the present. The current study's findings demonstrate that the temporal component of team membership should always be considered.

Fourth, findings also contribute to social identity literature and literature on transactive memory systems. The findings advance the social identity literature by showing that identity threats impact teams differentially depending on how much a team's identity means to the members (e.g., specialization of newcomer's knowledge). Whereas this has been suggested by many theorists (e.g. Turner, 1979), this is the first study to demonstrate this effect empirically. Additionally, the findings contribute to the literature on transactive memory systems by demonstrating a unique way in which behavioral proxies can be used to capture a team's cognitive processes in archival data.

Importantly, whereas the results generally demonstrate the hypothesized effects with respect to the specialization component of the TMS, the hypotheses regarding the credibility and coordination components of the TMS offered less support. Specifically, Hypothesis 1a,

that newcomer absorption into the knowledge credibility component of the TMS is greater when the newcomer poses a weak identity threat to the team than when the newcomer poses a strong identity threat to the team, was not supported. Interestingly, this could be because there was significant crossover interaction when the interaction term of identity threat and identity strength was added to the model.

Additionally, Hypothesis 2a and 2c, that the impact of identity threat on newcomer absorption into TMS depends on the team's identity strength was not supported when absorption into the credibility and coordination components of the transactive memory system were assessed. Specifically, the hypothesized relationship that in strongly identified teams, identity threat would be negatively related to newcomer absorption into TMS, whereas in weakly identified teams, identity threat would positively

related to newcomer absorption into TMS was not supported. This suggests that identity threats do not impact the incumbent's ability to recognize a smart, capable newcomer, nor does an identity threat interfere with the coordination processes that have already been occurring within the team. Rather, the results suggest that the differences in research on creativity and social identity theory stem from the fact that newcomer's are not recognized for their specialized knowledge if they are perceived to threaten an identity that is held in high esteem. This makes intuitive sense as social identity theory rests on the tenants that newcomers will be dismissed based solely on their group membership (Turner, Brown, & Tajfel, 1979), whereas creativity research asserts that it is in fact the specialized knowledge of a newcomer that leads to creativity (Nemeth, Brown, & Rogers, 2001). Consequently, it makes sense that the interaction term of identity threat and identity strength only impacts the incumbents' ability to recognize specialized knowledge.

Practical Implications

The current study's findings not only offer theoretical contributions but also implications for practice. Specifically, this research makes two practical contributions. First, this research suggests that when managers want to incorporate a newcomer into a work team, they should consider not only the attributes of the team and the newcomer but also the core values held by the team and the newcomer if they want the newcomer to be recognized for their specialized skills. Whereas typically, newcomers are added to teams because their KSAOs fill a need that is lacking (Mathieu et al., 2013b), this thesis suggests that it is not enough to solely consider what the team lacks and then look to a newcomer to fill this void. Rather, those in charge of staffing and onboarding must

consider how the core values, and beliefs of a newcomer align with the core values, beliefs of a team. Specifically, when a team has developed a very strong identity and the newcomer poses a threat to this identity, the incumbents are unlikely to recognize the newcomer's specialized knowledge. Therefore, in situations in which it is essential that the newcomer can contribute his or her specialized knowledge to the team, it is important to consider adding a newcomer who's values and beliefs align closely with the core values and beliefs of the incumbents.

Second, this research points out the potential detriments of fostering strong identities in work teams. Because members that are highly identified with their team are less likely to absorb a newcomer that poses a threat, managers should be weary to make new personnel decisions for teams that appear to have fostered high identity strength. In cases where strong team identities are detected, a manager may choose to implement work activities that are designed to *weaken* the team's identity. Although this may seems counterintuitive, making a team's identity more ambiguous before onboarding a newcomer that poses a potential threat is one strategy that should help the absorption process. Ultimately, understanding the identity strength of a team will help determine if the addition of the selected newcomer is an appropriate decision at the given point in time.

Limitations

While the current study offers and empirically validates a conceptual model of newcomer absorption, it does so with a few important limitations. The first limitation is the use of archival data. The NBA data used in this study provided a nuanced assessment, capitalizing on unobtrusive measurement, however the use of behavioral proxies for a

cognitive construct (i.e., transactive memory system) is potentially problematic. Although I have justified why the behavioral proxies are relevant, concerns can be raised over the construct validity of these measures. Specifically, the criteria may be contaminated with variance that is systematically related to performing the behavior itself. Additionally, the behavioral proxies may be deficient in capturing all of the variance that is represented by a team's TMS; whereas the behavioral proxies capture the variance related to observable, action behaviors, they do not capture the variance related to the cognitive, thought-processes that result in inaction. Analysis demonstrates that the TMS components were not as highly correlated as they typically are in traditional empirical studies. Whereas correlations between the three components often range between .4-.7 (Lewis, 2003), in the current study the correlations between the three components were weak at best. To remedy this limitation, future studies should obtain psychological measures of TMS that are empirically validated and attempt to replicate the findings.

The second limitation is the lack of a manipulation check for the identity threat variable. Importantly, a trade-off had to be made: conduct a manipulation check by collecting data in a laboratory setting, risking the chance of failing to foster a "real-life" team identity or utilize archival data in which strong team identities exist and theoretically justify the presence or absence of an identity threat. Faced with this dilemma, I chose the latter, and maintained ecological validity at the cost of a manipulation check. Whereas I support my operationalization of an identity threat with theory, anecdote, and direct quotes, further work should aim to assure that the phenomenon being captured in this study truly represents an identity threat. To do this, future research should test the proposed model in a laboratory setting with an empirically

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checked identity threat manipulation. Examples such as Duck and Fielding's work (2003), demonstrate how identity can be fostered in a laboratory setting and should be followed before implementing the identity threat.

Finally, the third limitation is that the study quantifies the newcomer absorption process as a full year, however, in reality, the absorption process may end earlier for some teams and last longer for others. The year justification makes practical sense for the current study because most of the metrics available were measured on a yearly basis. Additionally, the yearly measurement of absorption helped control that all of the newcomers experienced similar events (e.g., all newcomers were part of 82 games, all newcomers had the same number of away and home games, etc.) that could have affected the absorption process. However, prior research on newcomer absorption demonstrates that newcomers go through processes, such as socialization, at different speeds (Moreland and Levine, 1994). To address this limitation within the current study, one could look at interviews of each respective team and newcomer and code them to determine when they cognitively integrated the newcomer into the team. An absorbed newcomer would be viewed as part of the team – consequently, when incumbents consistently refer to the newcomer and themselves as a common collective (e.g., "we", "our", and "us"), one could argue the newcomer absorption process is complete.

Future Directions

The current study is the first to integrate creativity research and social identity theory to explain how a newcomer is absorbed into a new team's transactive memory system, consequently, opportunities abound to expand upon the current results. For example, findings suggest team and newcomer identity play an important role in the

newcomer's absorption into the transactive memory system, however future researchers should investigate to see if team and newcomer identity impact other teamwork processes (e.g., cohesion, conflict, communication) and outcomes (e.g., performance, viability) in the same way. For example, a newcomer with a unique identity may disrupt the cohesion of a group and cause faultlines to develop. Furthermore, because newcomers that threaten a strongly identified team are likely to disrupt an effective TMS, research should investigate whether these detriments to the TMS lead to detriments in overall team performance.

Importantly, teams often work in interdependent systems, known as multiteam systems. In these situations, component teams must effectively work with other teams, and it is commonplace to see outside teams added to established systems to address specific areas of need. Consequently, researchers should investigate if the current findings hold at the team level of analysis; will new teams pose an identity threat to established MTSs? In this way, cross-level effects can be examined and researchers can look at not only how the new component team is absorbed into the MTS but also how the individuals within the new component are absorbed into the system. In a similar vein, not all members on a team hold the same level of identity strength with their respective team; consequently, future research should embrace a more micro-approach and investigate whether newcomers are absorbed into sub-groups of teams differently based on their identity.

Conclusion

As teams become the dominant mode of work and as individuals frequently experience job changes, it becomes essential that we understand how newcomers will be

absorbed into our work teams. Previous research has addressed the socialization of newcomers (Moreland & Levine, 2002) as well as the impact an individual newcomer can have on a team (Chen, 2005). The next step is understanding how newcomers impact already existing processes within a team. The current study takes a step forward in this direction, by explaining how newcomers are absorbed into team TMS. Through integrating research framed in the bodies of creativity literature and social identity theory, this thesis advances both practice and theory by illuminating the role of identity in the newcomer absorption process.

APPENDIX A: Calculation of Player Efficiency Rating (PER) Metric

Player Efficiency Rating is a statistic created by John Hollinger that sums up the player's positive accomplishments and subtracts the negative accomplishments to create an efficiency score Below is the equation, broken down in to three steps (Hollinger, 2005; Hollinger, 2011):

Step 1: Main Equation

uPER = (1 / MP) *[3P + (2/3) * AST + (2 - factor * (team_AST / team_FG)) * FG + (FT *0.5 * (1 + (1 - (team_AST / team_FG)) + (2/3) * (team_AST / team_FG))) - VOP * TOV - VOP * DRB% * (FGA - FG) - VOP * 0.44 * (0.44 + (0.56 * DRB%)) * (FTA - FT) + VOP * (1 - DRB%) * (TRB - ORB) + VOP * DRB% * ORB + VOP * STL + VOP * DRB% * BLK - PF * ((lg_FT / lg_PF) - 0.44 * (lg_FTA / lg_PF) * VOP)]

Step 2: Adjustment for Pace of Play

aPER = (pace adjustment) * uPER

Step 3: Standardizes so mean of league is 15

PER = aPER * (15 / lg_aPER)

Key

MP = minutes played; **3P** = 3 point shots; **AST** = Assists; **FG** = field goals; **FGA** = field goal attempts; **FT** = free throws; **FTA** = free throws attempts; **DRB** = defensive rebounds; **ORB** = offensive rebounds; **TRB**; total rebounds; **STL** = steals; **BLK** = blocks; **PF** = personal fouls; **TOV** = turnovers; **lg** = league; **factor** = (2/3) – (.05*(lg_AST/ lgFG) / 2* (lg FG/ 1g_lgFT); **VOP** = lg_TS/ (LgFGA- lgORB + lgTOV + .044* lg_FTA)

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