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Abstract:	<p>As most careers now span across organizations, former employees represent a growing source of potential hires for many organizations. Yet, we know little about whether and when firms benefit by rehiring former employees. To answer these questions, we adopt a knowledge-based view (KBV) of hiring to develop new theory about how returning former employees' ("boomerangs") post-hire performance might differ from that of external hires who have no previous experience with the firm ("new hires"). We theorize that, relative to new hires, boomerangs' familiarity with the organization's social system will allow them to more effectively engage in coordination and overcome internal resistance from organizational incumbents. As a consequence, boomerangs should have a particular advantage in roles that require a higher degree of coordination and in units that are likely more resistant to outsiders. Comparing the post-hire performance of 2,053 boomerangs and 10,858 new hires over an eight-year period in a large health care organization, we find that upon being (re)hired into the organization, boomerangs outperform new hires in their initial job spell and that this performance advantage is larger in jobs requiring greater internal coordination and in contexts characterized by greater internal resistance to external hires.</p>

In with the Old?
Examining When Boomerang Employees Outperform New Hires

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IN WITH THE OLD? EXAMINING WHEN BOOMERANG EMPLOYEES OUTPERFORM NEW HIRES

ABSTRACT

As most careers now span across organizations, former employees represent a growing source of potential hires for many organizations. Yet, we know little about whether and when firms benefit by rehiring former employees. To answer these questions, we adopt a knowledge-based view (KBV) of hiring to develop new theory about how returning former employees' ("boomerangs") post-hire performance might differ from that of external hires who have no previous experience with the firm ("new hires"). We theorize that, relative to new hires, boomerangs' familiarity with the organization's social system will allow them to more effectively engage in coordination and overcome internal resistance from organizational incumbents. As a consequence, boomerangs should have a particular advantage in roles that require a higher degree of coordination and in units that are likely to be more resistant to outsiders. Comparing the post-hire performance of 2,053 boomerangs and 10,858 new hires over an eight-year period in a large health care organization, we find that upon being (re)hired into the organization, boomerangs outperform new hires in their initial job spell and that this performance advantage is larger in jobs requiring greater internal coordination and in contexts characterized by greater internal resistance to external hires.

Keywords: boomerangs, rehires, source of hire, knowledge based view, strategic human capital

Seeking to understand how firms acquire the human capital they need, scholars have paid increasing attention to the different sources from which firms hire. Studies have explored organizations' targeted hiring from sources such as employee referrals (Burks, Cowgill, Hoffman, & Housman, 2015; Fernandez, Castilla, & Moore, 2000; Merluzzi & Sterling, 2017), competitors (Chacar & Coff, 2000; Somaya, Williamson, & Lorinkova, 2008; Song, Almeida, & Wu, 2003), customers (Grensing-Pophal, 2018; Yoon, 2017), suppliers (e.g., Carnahan & Somaya, 2013), and other talent pipelines (Brymer, Chadwick, Hill, & Molloy, 2018; Brymer, Molloy, & Gilbert, 2014). These studies emphasize that hiring sources matter, suggesting that hires from different sources vary in hiring costs (Fernandez et al., 2000), pre-hire information advantages (Pallais & Sands, 2016), and the unique knowledge (Rao & Drazin, 2002) and social capital (Dokko & Rosenkopf, 2010; Somaya et al., 2008) that they contribute.

Although this research has highlighted the value of understanding the benefits associated

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with different hiring sources, it has said little about one pool of potential recruits: the firm’s previous employees. Rehiring of previous employees, often described as “boomerang hiring,” is increasingly common, as surveys suggest that organizations have become more open to rehiring former employees (Kronos, 2015; Tucker, 2018) and that rehires may now constitute 10–20 percent of all hires (Kronos, 2015; Loan-Clarke, Arnold, Coombs, Hartley, & Bosley, 2010). We believe that this numerically important hiring source is also theoretically important. Specifically, we argue that boomerangs differ from all other hiring sources because when they enter the organization they are already familiar with the social system, norms, and routines governing the coordination of work and flow of resources in the firm. This knowledge of the organizational social system is critical to employees’ abilities to perform their jobs, but given its tacit and firm-specific nature (Kogut & Zander, 1992) employees can acquire it only through personal experience working in the organization. Although some other hiring approaches, such as referral hiring or realistic job previews, may allow candidates to learn a certain amount about the organization before their entry, such limited interactions are unlikely to be able to substitute for the full immersion in the social system occasioned by previous employment. We examine how boomerangs’ familiarity with the organization’s social system may allow them to outperform other external hires who have no previous experience in the firm (i.e., “new hires”) in particular kinds of roles.

Although previous research has explored aspects of boomerang hiring as a phenomenon (Shipp, Furst-Holloway, Harris, & Rosen, 2014; Swider, Liu, Harris, & Gardner, 2017), the field still lacks theory and evidence on where boomerangs’ previous organizational experience leads them to perform differently from new hires. A few studies offer preliminary empirical evidence on the average performance effects of (re)entry to a firm as a boomerang, often failing to find

strong advantages (Arnold, Van Iddekinge, Campion, Bauer, & Campion, 2020; Taylor & Schmidt, 1983; Williams, Labig, & Stone, 1993). We lack, though, theoretical accounts of how prior experience in the firm might affect boomerangs' performance. Such theory is particularly important in allowing us to understand the kinds of roles for which boomerangs might be best suited.

In this study, we draw on and advance the knowledge-based view (KBV) of the firm to develop theory about the post-hire performance of boomerang employees relative to external hires who have no previous experience with the firm. We argue that boomerangs differ from new hires based on their intimate familiarity with the organization's social system. The KBV conceptualizes the firm as a unique social system, supported by a strong collective identity, in which a common stock of organizational knowledge facilitates coordinated action (Arrow, 1974; Håkanson, 2010; Kogut & Zander, 1992, 1996). Importantly, the KBV holds that organizational members' understanding of – and ability to employ – this organizational knowledge is developed only through their shared experiences interacting with others in the social system over time (Zander & Kogut, 1995). Extending these theoretical insights to the individual level, we argue that boomerangs' greater understanding of this social system leaves them better positioned than new hires who lack such prior organizational experience to navigate the organization and perform their jobs. Moreover, we suggest that boomerangs are better equipped to communicate their ideas and perspectives to incumbent organizational members in a non-threatening way, thereby enhancing their acceptance by these members and helping them to integrate their external knowledge into the organization.

We draw on these arguments to identify the kinds of roles where boomerangs are likely to have the greatest performance advantage over new hires – namely, those roles that require

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greater familiarity with the organization’s social system. Specifically, we predict that the boomerang performance advantage will be stronger in jobs requiring more intense coordination, such as jobs that are more interdependent with other jobs, those characterized by greater relational demands, and those involving more administrative coordination. We also expect that boomerangs’ familiarity with the social system will be more valuable in work units where external hires more likely face internal resistance to their ideas and contributions, such as in units with fewer recent external hires and in those led by longer-tenured managers. Through these arguments, we demonstrate that the KBV, which has traditionally been conceived and applied as a theory of the coordinated, collective action characterizing organizations, has meaningful implications for the entry and performance of individuals *within* organizations.

 Analyzing archival data covering more than 2,000 boomerang hires and 10,000 new hires over an eight-year period in a large health care organization, we find general support for our hypotheses. We also conduct supplementary analyses to examine whether the observed boomerang performance advantage might partly result from boomerangs having persistently higher overall ability than that of new hires, reflecting employers’ increased pre-hire information about boomerangs. We find, however, that boomerangs did not exhibit stronger performance in their original work spells, compared to other employees in the organization, suggesting that boomerangs do not possess higher ability than other hires. We also explore whether boomerangs experience an added performance advantage when returning to work units or managers that they previously worked with, perhaps because of their pre-existing social ties or greater knowledge of the local context. While we find evidence that boomerang performance is enhanced by returning to work for the same manager, our main findings still hold for boomerangs who re-enter the organization under a different manager.

A KNOWLEDGE-BASED VIEW OF BOOMERANG HIRES

Following previous studies, we define boomerangs as workers who were previously employed as permanent (rather than contingent) employees of an organization and, after time away, again become employees of that same organization (Shipp et al., 2014; Swider et al., 2017).

The decision to return to an employer with which one has previously parted ways may seem surprising. Shipp et al. (2014) note, however, that many of the reasons people might choose to leave an employer could be compatible with their decisions to rejoin. In particular, those who leave for personal reasons or because of another job opportunity may not be dissatisfied with the organization. As circumstances change, those former employees may consider returning to the firm. Shipp et al.'s (2014) survey of departed employees found that almost as many respondents were unsure whether they would return to the firm given an opportunity as those who said they would not return. Another survey suggests that nearly half of workers are open to returning to a previous firm (The Workforce Institute, 2015). It therefore seems that many former employees would consider rejoining their organization, but what would be the implications of hiring them?

Although some research has explored which boomerangs perform best (Swider et al., 2017), no studies have systematically analyzed whether, where, and why boomerangs might perform differently from new hires. We argue that boomerangs will perform differently from those hired from any other external source because boomerangs alone possess intimate prior experience in the organization's social system. To develop this argument, we first draw on the KBV to outline the importance of understanding the organization's social system and how such an understanding is acquired.

The KBV and Hiring

According to the KBV, "organizations are social communities in which individual and social expertise is transformed into economically useful products and services by the application of a

set of higher-order organizing principles” (Kogut & Zander, 1992). These organizational principles are embedded in two forms of knowledge. Organizational know-what, or information, covers such items as formal organizational structures, policies, collective purpose, and “blueprints.” It may include knowledge of the resources available, where employees can access them in the organization (e.g., which senior team leaders control the resources critical for completing a project), and which goals should guide the organization’s and members’ efforts. Organizational know-how encompasses organizational members’ shared understanding of norms, routines, and expectations for communication, influence, and work flows (Kogut & Zander, 1992). This know-how describes the accepted approaches for interacting with other organizational members to access resources and complete work (e.g., how best to “sell” leaders on a project), and allows the development and performance of collective routines (Nelson & Winter, 1982). Both forms of knowledge are often tacit and highly firm-specific, making it difficult for organizations to imitate one another’s activity.

The KBV also suggests that collective activity is facilitated by members’ identification with the organization and its social system (Kogut & Zander, 1996), which helps them to internalize the higher-order organizing principles (e.g., shared values, collective purpose, behavioral expectations) that govern coordinated action. Reinforcing this identification are social barriers, within which organizational members cohere to the organization’s “normative territory” and outside of which non-members are excluded (Kogut & Zander, 1996).

Although scholars have used these factors to explain persistent differences in organizations’ capabilities (Winter, 1988), the implications of these knowledge-based boundaries for the performance of individuals working within organizations – particularly those recently hired – have not been explored. This is important, as the same attributes that allow organizations

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3 to coordinate complex tasks may also pose challenges for individuals who cannot effectively
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5 navigate the organizations' social system. Moreover, while tacit and firm-specific nature of
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7 organizational knowledge may help to hinder imitation by other firms, it can also make it
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9 difficult for new hires to acquire that knowledge, posing particular barriers to their integration
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11 and effective performance.
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15 We seek to use this insight to understand how boomerangs might differ from other
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17 external hires. We first describe how boomerangs' prior employment relationship may help them
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19 to integrate better than new hires into the organization; we then develop arguments about the
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21 kinds of jobs in which that performance advantage is likely greatest.
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24 **The Boomerang Performance Advantage**

25 Boomerangs differ from new hires in that they have previously worked in the organization. This
26
27 prior experience should give boomerangs knowledge of the organization's social system that new
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29 hires lack. Social systems often evolve slowly over time; networks of shared knowledge and
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31 relationships help to create stability while also serving as a powerful source of inertia (Kogut &
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33 Zander, 1992). Thus, at least some of the tacit knowledge that boomerangs acquired from their
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35 previous employment at the organization is likely to remain relevant upon their return. This
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37 knowledge, along with their ability to more effectively gain acceptance of their ideas and
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39 contributions, should allow boomerangs to outperform new hires when they begin in their roles,
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41 both because they can better coordinate with others and because they face less resistance from
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43 other employees to their ideas and contributions.
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49 First, boomerangs' knowledge of the organization's social system should provide an
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51 important advantage in coordinating with others in the organization. The KBV highlights the
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53 critical role of organizational knowledge for coordinating organizational members' contributions
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55 to complex tasks (Kogut & Zander, 1992; Nelson & Winter, 1982). Extending this logic, we
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argue that individuals who have greater knowledge of the organization’s social system will enjoy a performance advantage when working in this environment. That is, while the KBV literature typically focuses on how the knowledge embedded in an organization’s social system shapes overall organizational performance, we suggest that individuals’ knowledge of that system is critical in enabling them to effectively perform their jobs within it.

Lacking knowledge of the organization’s social system can disadvantage new hires relative to other employees. For instance, Huckman and Pisano (2006) found that cardiac surgeons achieved worse outcomes when they had less experience at particular hospitals, independent of their overall career experience. The authors argued that lack of familiarity with the employees, structures, and routines specific to individual hospitals compromised surgeons’ effectiveness. Dokko and colleagues (2009) found that prior related work experience in another firm could also impede a new hire’s performance because such prior experience, and the associated learning of the norms, schemas, and scripts underlying appropriate work flows and behaviors, can make it difficult for an individual to adapt to how work is performed in the new organization. Consistent with the KBV, these studies suggest that understanding an organization’s social system helps individuals to coordinate their work, with more effective coordination leading to improved job performance (Grant & Parker, 2009; Heath & Staudenmayer, 2000). Other evidence highlights how the tacit, difficult to learn nature of this knowledge means that it takes considerable time to acquire; for example, Bidwell (2011) found that new hires took two to three years to achieve levels of performance similar to those of promoted workers, and Groysberg et al. (2008) found that analysts who switch firms reflect lower performance for several years. To the extent that boomerang hires have already spent time acquiring and internalizing knowledge of the social system, they should therefore perform better

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3 than do other new hires.
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5 New hires can, of course, learn about the organization in other ways. For instance,
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7 conversations with recruiters (Rynes, Bretz, & Gerhart, 1991; Treadway et al., 2014) and friends
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9 who currently work in the organization (Van Hoya & Lievens, 2007, 2009) provide some
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11 information about what it is like to work there, as can publicly available comments on social
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13 media (McFarland & Ployhart, 2015). New hires are also likely to learn more about the
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15 organization as they progress through the hiring process (Barber, Daly, Giannantonio, & Phillips,
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17 1994), which may include a realistic job preview (Phillips, 1998). However, these interactions
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19 are typically limited both in number and depth, such that they are unlikely to fully convey all of
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21 the norms, routines, work flows, expectations for communication, influence tactics, shared goals
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23 and the myriad other pieces of tacit knowledge that together comprise the organization's social
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25 system. Given how long it takes new hires who are immersed within the organization to learn the
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27 information necessary to be effective in their role, it therefore seems unlikely that the briefer and
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29 more superficial organizational knowledge conveyed by referrers or during the recruiting process
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31 would provide a comparable level of knowledge to that acquired through actual employment.
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33 Indeed, studies suggest that referrals do not consistently outperform hires from other sources
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35 (Schlachter & Pieper, 2019), despite their preferential access to information about the
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37 organization and support from their referrers (Weller, Holtom, Matiaske, & Mellewigt, 2009;
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39 Weller, Hymer, Nyberg, & Ebert, 2019). Further, boomerangs report possessing more pre-hire
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41 knowledge about what it is like to work in the organization than hires from any other source,
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43 including referrals (Williams et al., 1993).
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51 A second potential advantage derives from boomerang hires' ability to gain greater
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53 acceptance of their efforts and ideas. Kogut and Zander (1996) emphasize common identity as a
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central element of organizational knowledge systems, which demarcates insiders from outsiders and facilitates coordination and learning within the organization. To perform effectively, employees therefore also need to be accepted by others as a bona fide organizational member. Hence, research on social identity suggests that a group’s shared identity causes the group to view its members more positively than individuals outside the group (Hewstone, Rubin, & Willis, 2002). This bias shapes group members’ perceptions of outsiders’ relative trustworthiness, cooperativeness, and likeability (Gaertner, Mann, Murrell, & Dovidio, 1989) and shapes the members’ willingness to share and accept knowledge with others deemed to be within or outside the group (Kane, Argote, & Levine, 2005).

Scholars also argue that resistance to outsiders may be particularly aggressive when “out-group” individuals extend ideas or take actions that appear to undermine or question the group’s values, beliefs, or norms (Branscombe, Ellemers, Spears, & Doosje, 1999; Voci, 2006). This can be a challenge for new entrants, who often enter organizations with ideas about how things should be done that differ from how things are currently done in the organization (Dokko et al., 2009). Although organizations often seek to use new hires to bring new knowledge into the firm (Almeida & Kogut, 1999; Drazin & Rao, 2002; Rosenkopf & Almeida, 2003), evidence shows that incumbents often resist newcomers’ ideas as the former seek to maintain the stability of their routines (Rink, Kane, Ellemers, & Van der Vegt, 2013; Ziller, 1965). The more distance that organizational members perceive in a new entrant’s ideas relative to the organization’s collective goals, or to the behavioral patterns enacted to achieve those goals, the more likely the members are to resist these ideas. Hence, while firms may seek to gain the knowledge of new entrants, organizations may reject that knowledge in practice.

On this basis, we argue that the ability to sell novel insights to organizational incumbents

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3 is likely an important antecedent to newcomers' success (Hansen & Levine, 2009). Furthermore,
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5 we suggest that boomerangs' prior history in the organization and greater familiarity with its
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7 social knowledge will yield more-rapid acceptance by other organizational members. Prior
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9 research has demonstrated that units accept useful ideas (Ziller, Behringer, & Jansen, 1961) and
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11 criticism (Hornsey, Grice, Jetten, Paulsen, & Callan, 2007) from incumbents more than from
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13 newcomers, suggesting that greater acceptance will mean less resistance to boomerangs' ideas.
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15 Moreover, boomerangs' greater understanding of organizational routines and norms may help
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17 them to frame their ideas as more consistent with organizational goals and as less disruptive to
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19 norms and routines (Dutton, Ashford, O'Neill, & Lawrence, 2001; Hewstone, Rubin, & Willis,
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21 2002; Moreland & Levine, 2006).
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26 The preceding arguments suggest that, upon their re-entry to the organization,
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28 boomerangs have greater knowledge of the organization's social system than new hires do, and
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30 are therefore likely to outperform them. This knowledge better equips boomerangs to achieve the
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32 coordination required to use their skills productively and to overcome internal resistance that
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34 newcomers may encounter from incumbents. We expect boomerangs' prior knowledge to be
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36 most beneficial during their initial job spell (i.e., during the time spent in the job for which they
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38 are rehired), as the gap between boomerangs' and new hires' knowledge of the organization's
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40 social system is likely to be largest during this period. A baseline hypothesis drawing on these
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42 arguments therefore suggests:
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47 *Hypothesis 1. Boomerangs will have higher performance than new hires do during their initial*
48 *job spells in the organization.*
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50 In developing these arguments, we have focused on the effects of boomerangs'
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52 knowledge of the organizational social system. It is important to note that the KBV also suggests
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54 another reason that boomerangs might outperform new hires: the better pre-hire information that
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the employer has about the boomerang, relative to other external candidates. An important form of knowledge for integrating organizational activities is an understanding of the knowledge, skills, and capabilities of different members, which allows people to coordinate and assign tasks effectively (Kogut & Zander, 1992). In addition to covering current members' skills, such organizational knowledge also likely extends to former employees, as current employees retain tacit knowledge of what it was like to work with them, and formal employment records document their prior experiences and performance. Because the firm has such information advantages regarding boomerangs, the firm may be better positioned to choose effectively from the boomerang pool, thereby avoiding hiring low-ability boomerangs in a way that it cannot with new hires. We evaluate whether this mechanism also contributes to a boomerang performance advantage in our analyses.

The Boomerang Advantage and Demands for Coordination

The particular value of our arguments about the differences between boomerangs and new hires is that they help us to identify those roles in which boomerangs are most likely to have a performance advantage. If boomerangs' knowledge of the social system helps them to coordinate with others in the organization and overcome initial resistance, then they should have a greater advantage in roles where these attributes will be most important, as we develop below.

First, we argue that boomerangs' advantage should be greater in roles requiring relatively more coordination. Organizational theory highlights two common forms of coordination in organizations: coordination through mutual adjustment and coordination by administration. We suggest that boomerang hires will perform better in roles that require either form.

Coordination by mutual adjustment. Classic organizational theory emphasizes that much coordination happens through “mutual adjustment” (Thompson, 1967) or “feedback” (March & Simon, 1958), in which different employees alter their activities to accommodate others. Such

mutual adjustment is particularly important in jobs with high structural interdependence, that is, jobs whose interconnected work flows require employees to navigate relationships and coordinate activities with other internal stakeholders (Courtright, Thurgood, Stewart, & Pierotti, 2015). Jobs characterized by such internal interdependence include software developers, financial managers, and in-house attorneys.¹

We expect that boomerang hires' advantages will be greater in jobs that require greater interdependence with other members of the organization. By virtue of their experience in the organization, boomerangs will understand the language and norms of interpersonal relationships and the organization's coordination processes (Nahapiet & Ghoshal, 1998). For this reason, boomerangs will be better equipped for effective exchanges with other employees and better prepared to accommodate typical communication flows and expectations for how the organization's different internal stakeholders coordinate work (Huckman & Pisano, 2006). These advantages will be most prominent in more-interdependent roles. Hence, we propose:

Hypothesis 2a. The degree of internal interdependence required by a job will moderate the relationship between boomerang status and individual performance, such that this positive relationship will be stronger in jobs with high demand for internal interdependence.

Understanding the organization's social system may also be particularly important when interactions with colleagues are more relational. The literature on conflict has long recognized that coworkers' interactions can involve both task-focused aspects, such as the allocation of resources and management of processes, and more-relational aspects, which involve socioemotional exchanges (De Dreu & Weingart, 2003; Jehn, 1995). Relational interactions are often more sensitive, and research has found that relational conflicts are much more detrimental

¹ These examples and those in subsequent paragraphs describing jobs with relational demands and involving administrative coordination are actual jobs associated with these characteristics in the O*Net database. We provide more details on our use of O*Net classifications in the methods section.

to team members’ satisfaction than are task-focused conflicts (De Dreu & Weingart, 2003). Given these sensitivities, an understanding of the nuances of organizational codes and norms is likely critical. People engaged in relational interactions need to know when to offer social and emotional support to others and must be able to engage in cooperative activities in ways that align with the norms of the organization’s social context (Chatman, 1991; Schmidt & Weiner, 1988).

We therefore propose that boomerang hires’ greater knowledge of the organization’s social system will be particularly important in jobs that impose more relational demands on their incumbents. These jobs require employees to develop and maintain personal, cooperative connections with others in their work and to provide help, sensitivity, and support (Day & Silverman, 1989). Such roles often require individuals to engage in conflict management, confidence building, and affect management (Marks, Mathieu, & Zaccaro, 2001).² These are the roles in which managing relational interactions are most important; therefore, boomerang employees’ understanding of social norms and values will be most important in these roles.

Considering these arguments, we offer the following hypothesis:

Hypothesis 2b. The degree of relational demands imposed by a job will moderate the relationship between boomerang status and individual performance, such that this positive relationship will be stronger in jobs with high relational demands.

Administrative coordination. Coordination within organizations also occurs through

² Note that jobs may be high in both interdependence and relational demands, high in one and low in the other, or low in both. For example, the roles of financial manager and software developer are both high in interdependence and low in relational demands, reflecting that employees in these roles must frequently coordinate with individuals within or outside their function but do not regularly need to offer help or emotional support. In contrast, the role of in-house attorney is high in both interdependence and relational demands, reflecting that this role requires both frequent coordination and the provision of support to others. Finally, the role of human resource specialist is high in relational demands but low in interdependence, reflecting that while this job requires limited coordination with others, it requires the development of positive relationships with internal customers.

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3 plans, rules, and routines (Grant, 1996; March & Simon, 1958; Thompson, 1967). Indeed, in
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5 describing organizational knowledge, Kogut and Zander (1992) emphasize operating rules as a
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7 key component of that knowledge. Hence, administration, specifically the creation of plans,
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9 schedules, rules, and the allocation of resources across different areas, also plays a central role in
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11 coordination. Moreover, achieving effective administrative coordination likely requires a clear
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13 understanding of the organization's social system. Shamsie and Mannor (2013) argue that
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15 effective management requires "administrative tacit knowledge" developed through accumulated
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17 experience in using specific resources (in their case employees). Such tacit knowledge may
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19 include understanding the organizations' rules and routines and the collective purpose and
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21 higher-order goals that those rules and routines support. It may also comprise knowledge of the
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23 potential contributions and limitations of specific resources.
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29 Given the importance of developing this tacit knowledge through experience in the
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31 organization, we expect that boomerangs will more likely possess the knowledge necessary for
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33 effective administrative coordination. This advantage will likely be most important in roles with
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35 the highest demand for administrative activities, jobs that prominently require working with
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37 rules, processes, and routines. Examples of such jobs include purchasing agents and IT project
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39 managers (but not software developers). Our arguments suggest that boomerangs will have a
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41 particular advantage over new hires in such roles. We therefore propose:
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45 *Hypothesis 2c. The level of administrative coordination required by a job will moderate the*
46 *relationship between boomerang status and individual performance, such that this positive*
47 *relationship will be stronger in jobs with high demand for administrative coordination.*
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49 **Internal Resistance**

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51 As noted, internal resistance refers to the challenges that new entrants face from organizational
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53 incumbents (Rink et al., 2013), due to the social barriers created by employees' identification
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55 with their organization. Just as workers are hired into jobs with varied demand for coordination,
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3 however, workers are also likely hired into units with different levels of internal resistance. If the
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5 ability to overcome internal resistance partly underlies the performance differential between
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7 boomerangs and new hires, we expect the boomerang advantage to be larger in contexts with
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9 more internal resistance. Given that resistance can come from both colleagues (Rink et al., 2013)
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11 and managers (Jokisaari & Nurmi, 2009; Rink et al., 2013), we propose that the number of
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13 concurrent new entrants in a unit and the length of time a unit's manager has worked in the firm
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15 will likely influence the degree of internal resistance the new entrants face and, thus, the relative
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17 performance advantage of boomerangs relative to new hires.
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21 ***Recent hires.*** A key tenet of the KBV is that organizational members cohere around the
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23 organization's collective purpose and norms as they identify with the organizing principles
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25 governing its social system (Kogut & Zander, 1992, 1996). Because the identification and
26
27 cohesion binding organizational incumbents occur through a social learning process over time,
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29 we expect social barriers to be strongest among more-established employees. Those employees
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31 will have adopted organizational membership as a more central part of their identity and will be
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33 more invested in the organization's norms and routines. They may therefore feel more threatened
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35 by new ideas, which can disrupt the status quo. By contrast, recently hired employees likely
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37 identify less strongly with the organization and may feel less invested in the status quo. As a
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39 result, they are less likely to feel threatened by or biased against newcomers' proposed
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41 contributions (Hewstone et al., 2002).
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47 The extent to which new hires' work unit colleagues, with whom they work most closely,
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49 are also new hires or well-established organizational incumbents may therefore shape new hires'
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51 experience of resistance. Specifically, we suggest that internal resistance to new hires is likely
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53 greater in work units with fewer new hires. If this is true, we would also expect boomerangs'
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performance advantage to be greatest in work units with fewer other new hires. In such work units, boomerangs' knowledge of the organization's social system enables them to more effectively sell their ideas in ways that incumbents perceive as less threatening, by drawing on the use of shared language, accepted communication norms and influence tactics, and the alignment of messages with the organization's collective purpose. Considering these arguments, we offer the following hypothesis:

Hypothesis 3a. The number of recent new hires in a work unit will moderate the relationship between boomerang status and individual performance, such that this positive relationship will be stronger in work units where the number of recent new hires is low.

Managerial tenure. Given managers' direct influence over subordinates, the extent to which new hires face resistance from managers also likely shapes how effectively new entrants can perform their jobs. The arguments above suggest that managers who have spent relatively more time in the organization have more likely adopted organizational membership as a central part of their identity; as a result, they will be more invested in preserving the organizational norms, routines, and behavioral repertoires governing how things are done within the broader organization. For this reason, longer-tenured managers are likely more resistant than their less-tenured counterparts to external hires and their ideas. We anticipate that just as boomerang employees' greater knowledge of the organization's social system should help them to more effectively navigate colleagues' resistance, boomerangs should be better able to overcome resistance from longer-tenured managers. We therefore offer the following hypothesis:

Hypothesis 3b. Managers' tenure in the firm will moderate the relationship between boomerang status and individual performance, such that this positive relationship will be stronger as the tenure of a new entrant's manager increases.

METHODS & DATA

Research Setting

To test our hypotheses, we used annual personnel data for the years 2009 to 2016 from the US

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3 offices of a Fortune 500 health care company, which we refer to as Asclepius. For many reasons,
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5 Asclepius is an appealing setting for testing our hypotheses. First, the size of Asclepius’s US
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7 workforce enabled us to collect data on a larger number of boomerangs than previous single-firm
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9 studies have done (Shipp et al., 2014; Taylor & Schmidt, 1983). Second, the firm has a very
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11 diverse product portfolio within healthcare and therefore employs workers in diverse jobs,
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13 providing the extensive variation in job characteristics necessary to test many of our hypotheses.
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17 **Dependent Variable: Standardized Performance**

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19 Our hypotheses examine differences in the individual performances of boomerangs and new
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21 hires. We based our measure of performance on the annual rating each employee receives for
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23 each calendar year. Although managerial biases can influence such subjective performance
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25 evaluations (e.g., Turban & Jones, 1988), these evaluations encapsulate many different behavior
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27 and performance dimensions into a single rating (Campbell, McCloy, Oppler, & Sager, 1993).
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29 Prior research suggests that such evaluations have high test-retest reliability (Sturman, Cheramie,
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31 & Cashen, 2005) and, as a consequence, they represent the dominant metric of individual
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33 performance in management research (Sturman, 2003).
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37 Asclepius determines annual performance ratings through a two-step process. Managers
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39 first enter ratings for each of their subordinates into the firm’s performance management system.
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41 In doing so, they are encouraged to base their ratings on the employee’s performance in the
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43 current year rather than on past accomplishments or their potential future contributions. This
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45 process typically occurs in mid-September, as these ratings must be entered prior to performance
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47 calibration discussions, which represent the second step of the process. During these calibration
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49 discussions, which occur in October, all managers who supervise workers in similar jobs meet to
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51 review and discuss their individual ratings, to ensure consistency across the organization. By
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53 introducing this accountability into the assessment process, calibration discussions have been
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3 shown to reduce managerial bias, such that final ratings represent a more accurate assessment of
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5 actual performance (e.g., Pulakos & O’Leary, 2011).
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8 At the beginning of our observation window, all employees received a rating on a 0 to 9-
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10 point scale, with 9 representing the highest possible rating ($n = 12,890$; mean = 5.29; s.d. = 0.99).
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12 The company transitioned to an 8-point rating system with two components over a three-year
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14 period, with some pay grades transitioning earlier than others ($n = 12,796$; mean = 6.07; s.d. =
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16 0.89). A desire to give more-detailed feedback to employees motivated this change; the
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18 substantive nature of the performance assessment did not change. To make these two scales
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20 compatible across years, we standardized the measures within division, pay grade, and year: we
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22 transformed the original values to have a mean of 0 and a standard deviation of 1 among
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24 employees in the same division and same pay grade each year. This allowed us to account for
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26 differences in rating scale and other possible changes in rating policy over time, and for
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28 differences in how ratings may have been assigned to workers across divisions and in jobs at
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30 different organizational levels.
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35 Although there is a strong individual-level component to these ratings, we also found that
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37 performance ratings for the same individual often varied considerably over time (Cappelli &
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39 Conyon, 2018). The within-person variation in performance ratings (s.d. = 0.70) was comparable
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41 in magnitude to the variation across the sample population (s.d. = 0.94), and the average year-
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43 over-year change in performance ratings was 0.43, ranging from a decrease of 4 points to an
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45 increase of 4 points. This variation indicates the importance of analyzing performance separately
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47 in each year for which we have data.
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51 **Independent Variables**

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53 **Boomerang.** Our key independent variable is a dichotomous indicator of whether a
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55 worker was a *boomerang* (1) or a new hire (0). We define boomerangs as individuals who
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previously worked full time for Asclepius and returned to work for the organization (Shipp et al., 2014; Swider et al., 2017). New hires are individuals who have not worked for Asclepius prior to their entry into the organization during our study period.

At the time of our study, Asclepius did not systematically track their alumni or actively recruit former employees, even those who had performed exceptionally well prior to their exit. All of the individuals hired during our study applied to an open job posting and were asked, as part of the application process, if they had been previously employed at Asclepius. Although boomerangs could be flagged at this point, hiring managers did not have access to boomerang candidates’ prior performance data; due to privacy concerns, hiring managers could access only the performance data of their current direct reports, and HR was not permitted to query and provide this information to hiring managers. While this does not prevent hiring managers from “asking around” about a boomerang candidate, our HR informants indicated that hiring managers rarely devoted much time to informal research on boomerang candidates.

Nonetheless, boomerang hires were common at Asclepius, making up 12.6 percent of all external hires. These boomerangs were also highly heterogeneous (Swider et al., 2017). Although left-censoring means that we only have data on the previous jobs held by approximately one-quarter ($n = 509$) of the boomerangs in our sample, only 4 percent of those boomerangs returned to the same work unit, and just 6 percent returned to work for the same manager. There was more stability in functions, as 48 percent returned to a job in the function that they left; 41 percent returned to a job at a higher pay grade. How they had previously left the organization also reflects a surprising amount of diversity: 46 percent exited voluntarily, 53 percent exited as part of a divestiture or reduction in force, and 1 percent was terminated due to poor performance. On average, these boomerangs returned after 2.81 years away.

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3 **Coordination.** Following prior research assessing the effect of job characteristics on
4 employees' performance outcomes (e.g., Aguinis, O'Boyle, Gonzalez-Mulé, & Joo, 2016), we
5 used scores available in O*NET to code different jobs' demands for coordination. O*NET is a
6 database containing detailed variables reflecting the work activities (i.e., job tasks), work
7 contexts (i.e., physical and social factors influencing the nature of work), and work styles (i.e.,
8 personal characteristics that can affect how well someone does a job) associated with various US
9 occupations. All O*NET variables are scored from a low of 1 to a high of 100. The 121 variables
10 are organized into 24 scales, each reflecting a specific aspect of a job.
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21 We used a four-step process to map O*Net occupations to each of the 124 functions in
22 our sample. In the first step, one of the authors and a research assistant independently mapped an
23 O*NET occupation to each function at Asclepius, agreeing on 120 of the 124 matches. In the
24 second step, two additional authors independently reviewed the two occupation-to-function
25 mappings created in the first step and agreed on 122 of the 124 initial agreed-upon matches. In
26 step three, the three authors and the research assistant discussed the six functions reflecting
27 disagreement (four from step one and two from step two) and reached consensus regarding the
28 most appropriate matches. In step four, we submitted our matches to an expert at Asclepius for
29 review. They agreed with all of our matches.
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42 To create our measure of *internal interdependence*, we averaged the scores of two of the
43 three items from the role relationships scale in the work-context domain. The full three-item
44 scale assesses "the importance of different types of interaction with others both inside and
45 outside the organization." Because we focus on the extent to which a job requires coordinating
46 activities with other individuals inside (as opposed to outside) the organization, we excluded the
47 single item assessing whether the job requires dealing with external customers. The two-item
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scale assesses whether the work requires an individual to “work with a group or team” and to “coordinate with or lead others,” and had an alpha reliability of 0.84.^{3,4} Examples of jobs at Asclepius that are high in internal interdependence include Auditors, Training and Development Specialists, and Computer Systems Analysts.

Our measure of *relational demands* averages the scores for the three items that compose the interpersonal orientation scale in the work styles domain. This scale assesses the extent to which a job “requires being pleasant, cooperative, sensitive to others, easy to get along with, and having a preference for associating *with other organization members* (emphasis added).” The three items measure the extent to which a job requires “cooperation,” “concern for others,” and a “social orientation.” This three-item scale had an alpha reliability of 0.88. Examples of jobs at Asclepius that are high in relational demands include HR Specialists, Customer Service Representatives, and Lawyers.

To create our measure of *administrative coordination*, we averaged the scores for the three items that compose the administering scale in the work activities domain. This scale assesses the level of administering, monitoring, or controlling organizational resources that a job requires. The individual items assess the extent to which the job involves “monitoring and controlling resources,” “staffing organizational units,” and “performing administrative activities.” This three-item scale had an alpha reliability of 0.87. Examples of jobs at Asclepius that are high in administrative coordination include Purchasing Managers, IT Project Managers,

³ We considered an alternative measure of interdependence, using the Coordinating, Developing, Managing, and Advising scale within the work activities domain. However, while this scale is designed to assess the extent to which a job involves interacting with others, it focuses on whether the individual must interact with subordinates rather than with internal stakeholders more generally, as we theorize. For example, the items in this scale include “guiding and mentoring subordinates,” “developing and building teams,” and “coaching and developing others.”

⁴ In separate analyses, we also explored whether boomerang status was moderated by the extent to which a job requires external interdependence, as defined by the extent to which the job involves “dealing with external customers.” We found no significant effect when we examined the effect of the interaction between this item and boomerang status on performance.

and both Civil and Environmental Engineers.

Internal resistance. We argued that internal resistance will be more prevalent in units with fewer recent external hires and in units led by managers with longer organizational tenures. Asclepius's personnel records clearly define the company's work units, which consist of employees who report to the same manager. We created a measure of the *percentage of recent new hires* by counting the number of employees in the unit with fewer than two years of tenure in the firm and dividing this by the work unit size.⁵ Our decision to define recent hires as those with fewer than two years of tenure derives from research suggesting that it takes approximately two years for new hires to fully adjust to an organization (Bidwell, 2011; Groysberg et al., 2008). This seems to be true in our research context as well, as informants on site routinely told us that it takes at least two years to really know Asclepius. We calculated *managerial firm tenure* as the number of years the employee's direct manager had been employed at Asclepius.

Control Variables

A potential concern is that systematic differences in boomerangs' and new hires' jobs types might affect our outcomes of interest. That is, if boomerangs and new hires each fill different types of jobs, the results may be an artifact of those jobs rather than of individual differences in job performance. We addressed this concern by seeking to hold constant the nature of the job as much as possible. We used dummy variables to control for the 13 different hierarchical *pay grades* that workers in our sample occupied. We also included dummies for the *functional area*,⁶

⁵ For an alternative measure, we simply counted the number of employees with fewer than two years of tenure in the firm, while also controlling for unit size. This alternative measure yielded qualitatively similar results.

⁶ Because our coordination variables are mapped onto each of the 124 functions in our sample, we instead controlled for functional area. Functions, which are more specific, are nested within 17 broader functional areas. For example, the internal audit and tax functions are nested within the Finance functional area, whereas the creative design and market research functions are nested within the Marketing functional area.

operating company,⁷ and *state* in which a job is located. We calculated *unit size* as the natural logarithm of the number of employees in a unit.

A related concern is that jobs that we measure as high in coordination are also more complex jobs. If this is the case, any moderation effects we find could be explained in part by boomerangs being better equipped than new hires to cope with complexity, independent of differences in how effectively they coordinate. We addressed this concern in our main analyses by using the O*Net data to control for two additional job characteristics. Following Aguinis et al. (2016), we created a measure of *job complexity* by averaging the scores for “processing information” and “analyzing data or information” from the mental processes scale in the work activities domain. This two-item scale had an alpha reliability of 0.90. Because jobs high in autonomy are often seen as more complex due to a lack of organizational structure and guidance (Humphrey, Nahrgang, & Morgeson, 2007), we also followed Aguinis et al. (2016) and created a measure of *job autonomy* by averaging the scores for “degree of structured versus unstructured work” and “freedom to make decisions” from the structural job characteristics scale in the work-context domain. This two-item scale had an alpha reliability of 0.91.

We included a time-in-job control (*job spell tenure*) to account for the varying times that each worker had been in their job when they received their performance rating. We also included dummies for each year. Due to data privacy concerns, Asclepius did not share information on employee demographics.

Final Sample

Because we focus on comparing outcomes of boomerangs and new hires, we limited our analysis to jobs in pay grades and functions filled by both boomerangs and new hires during our

⁷ Each of the four divisions consists of multiple semi-independent operating companies responsible for the manufacturing and sales of certain product lines. There are a total of 44 operating companies in our sample.

observation period. This led us to exclude jobs, almost entirely at the firm's entry levels, filled exclusively by new hires. We also excluded from our analyses former interns who were hired into full-time positions during our study period. Asclepius extends (and interns must choose to accept) offers for full-time employment to interns prior to the end of their internship. These individuals are thus qualitatively different from employees who leave and then return, as they effectively remain members of the organization even during the time between ending the internship and beginning their full-time job in the organization (which is almost always spent finishing their university degree)⁸.

Because managers must submit initial performance ratings in September, managers can base their ratings for anyone (re)hired in or after July of a given year only on a maximum of three months of work performed. Asclepius discourages managers from submitting ratings for such workers (allowing managers to identify these workers as "too new to rate"), but some managers do so anyway, almost always assigning these workers an "average" score.⁹ As a result, our HR partners at Asclepius encouraged us to exclude these observations, as they are less likely to accurately reflect a worker's performance during that (partial) year.¹⁰

Our final sample therefore covers the first job spells of 2,053 boomerangs and 10,858

⁸ Our HR partners at Asclepius informed us that soon-to-be returning interns typically remain in close contact with their internship supervisor and colleagues during their time back at university, and also regularly receive information and updates from the HR department.

⁹ To illustrate, for those employees rated on the 9-point rating scale and hired *in or after July*, 71 percent received a rating of 5, 96 percent received a 4 or a 5, and no employees received a 1, 2, or 9 rating. Performance ratings for those hired *before July* were significantly more dispersed: 51 percent received a 5, 71 percent received a 4 or 5, and employees received scores ranging from 1 through 9.

¹⁰ This led us to exclude all observations for approximately 15 percent of boomerangs (n=404) and approximately 15 percent of new hires (n=2,457). Over 90 percent of these individuals were hired in or after July 2016, such that we had no subsequent performance evaluations during their first job spell. The remainder consisted of workers who were hired in or after July in earlier years (2009–2015) and subsequently exited the organization before receiving another performance evaluation. We also excluded 3,041 observations of individuals (re)hired into the organization in or after July of earlier years but for whom we could observe performance in subsequent years. While we dropped the first observation of these workers (the observation for which they had fewer than six months of job tenure), we included all subsequent observations. All analyses included a control for job spell tenure. In an unreported robustness check, our main analyses were unchanged when we included these observations.

new hires upon (re)entry into Asclepius during our study. The first job spell comprises all annual observations for which the worker remained in the job they were (re)hired into, and the job spell ends when the worker either exited Asclepius or moved to a different job in the firm. The average first job spell among the workers in our sample lasted two years, resulting in a total of 25,686 person-year observations of individuals (re)hired into jobs spanning 44 operating companies (each responsible for the manufacturing and sales of different product lines), 124 functions, 13 hierarchical pay grades, and 27 states.¹¹

RESULTS

Table 1 reports the means, standard deviations, and correlations among all variables. Note that the mean standardized performance rating is negative in our sample despite being zero in the full sample, indicating that boomerangs and new hires collectively perform worse than internal hires do (Bidwell, 2011). None of our measures of coordination correlate highly, indicating that internal interdependence, relational demands, and administrative coordination capture distinct job characteristics. Our two measures of internal resistance also do not correlate highly. Moreover, the variance inflation factors for our measures of coordination (range = 1.18 to 2.35) and internal resistance (1.04 to 1.34), as well as those for the rest of our variables, were all below the commonly used cutoff of 10, assuring us that multicollinearity is not a concern (Allison, 1999).

Table 2 presents the results of our analyses comparing the performance of boomerangs

¹¹ Asclepius’s entire US operations consist of 63 operating companies, 150 functions, 38 pay grades, and 32 states. Ninety-seven percent of Asclepius’s employees work in the 44 operating companies included in our analysis. The 19 operating companies not included are primarily special-purpose entities that engaged in very limited hiring; 11 employed no more than 25 workers in any given year, and only two employed more than 200. Of the 25 pay grades not included in the present analysis, 15 represent entry-level or part-time jobs, and eight represent executive positions. The other two pay grades were entry-level full-time jobs filled exclusively by new hires or returning interns. Note that because our analysis excludes these jobs, boomerangs make up a slightly higher percentage of external hires in our sample than across the entire organization (15.9% v. 12.6%)

and new hires. All models use ordinary least squares regression, with standardized performance rating as the dependent variable. All analyses are at the individual level, and each observation represents an observation of that worker in any given year during their first job spell as a boomerang or new hire. Because we often have multiple observations per individual, we cluster the errors by individual to account for non-independence among the errors.

Model 1 provides support for Hypothesis 1. The coefficient for boomerang status (with new hire as the omitted category) indicates that boomerangs receive performance ratings approximately 9 percent of a standard deviation higher than those of new hires¹² ($b = .092$; $p = .000$). This is a modest but perceptible effect.

Models 2 through 4 test our second set of hypotheses, which predicted that the performance gap between boomerangs and new hires would be greater in jobs requiring higher levels of coordination. Hypotheses 2a is not supported, as Model 2 shows no significant interaction between boomerang status and the level of the job's internal interdependence. We do, however, find support for Hypotheses 2b and 2c, with positive and significant interactions between boomerang status and a job's relational demands in Model 3 ($b = .009$; $p = .033$; plotted in Figure 1) and administrative coordination in Model 4 ($b = .004$ $p = .012$; plotted in Figure 2). A one standard-deviation increase in a job's relational demands increases the boomerang advantage to approximately 12 percent of a standard deviation. A one standard-deviation

¹² We explored whether these results might be attributable to managerial bias in favor of boomerangs, by examining the change in performance ratings among those boomerangs and new hires who experienced a change in manager during their first job spell (analysis available upon request). If hiring managers were systematically biased in favor of boomerangs, we would expect to find that new hires experience a performance rating "bump" relative to boomerangs when a change in manager occurs, because the new manager would feel less pressure to give a higher rating to a boomerang they did not hire. We found that boomerangs actually fared better than new hires after a manager change, suggesting that hiring managers are not, in fact, biased toward boomerangs at Asclepius. These results are consistent with sentiments expressed by our HR partners at Asclepius. They indicated that because of the organization's historic commitment to internal advancement, convincing others of the benefits of boomerangs was easier than selling them on new hires, such that managers felt more pressure to justify new hires by giving better performance ratings.

increase in a job’s level of administrative coordination increases the boomerang advantage to approximately 15 percent of a standard deviation. Model 5 shows that the results are consistent when we include all of the coordination-related interactions.

Models 6 through 8 test our third set of hypotheses, which predicted that the performance gap between boomerangs and new hires would be higher in work contexts in which external hires likely face more internal resistance. Here, we find support for both H3a and H3b, with a negative and significant interaction between boomerang status and the percentage of recent new hires in Model 6 ($b = -.255$; $p = .006$; plotted in Figure 3) and a positive and significant interaction between boomerang status and managerial tenure in Model 7 ($b = .006$; $p = .015$; plotted in Figure 4). Specifically, a one standard-deviation increase in a manager’s tenure increases the boomerang advantage to approximately 12 percent of a standard deviation. As above, Model 8 shows that the results are consistent when we include both internal resistance-related interactions. Model 9 presents a fully saturated model. The results are consistent with those presented above, although the interactions among boomerang status and managerial tenure ($p = .053$) and recent new hires ($p = .072$) fall just short of the standard test for statistical significance.^{13, 14}

Robustness Check

Including multiple observations per person-job spell allows us to maximize the information in the data, particularly given the substantial within-person variation in performance ratings. We cluster our standard errors by individual in our main analyses, to account for the non-

¹³ In models using the count of new hires with fewer than two years of tenure in the firm (rather than the percentage), all interactions in the fully saturated model were significant.
¹⁴ Our use of clustered standard errors precludes the use of standard tests of incremental fit (Cameron & Miller, 2015). However, analysis of the results without the use of clustered standard errors reveals that the additional explanatory power added by inclusion of the interaction terms in Models 2-9, while small in absolute terms, is statistically significant.

independence that these multiple observations create. For a more conservative test of our hypotheses, we also ran analyses using just the first performance rating in each job spell. This test also addresses concerns about survivor bias (see Benson & Rissing, 2020), as all boomerangs and new hires receive at least one performance rating while occupying the job into which they are (re)hired. We present these results in Table 3. Aside from some small changes in coefficient values, the results mirror those of our main analyses, providing confidence that our results are not an artifact of our modeling strategy.

Supplementary Analyses

Information and ability. As noted above, boomerangs' performance advantage could stem partly from differences in their innate ability. Because boomerangs have previously worked at the firm, hiring managers may have more information on the boomerang pool relative to the broader pool of new external candidates, enabling them to better evaluate and select high-ability boomerangs relative to new hires (Weller et al., 2019). The policies described above severely limited the amount of information that hiring managers could receive about boomerangs, but some hiring managers may have had access to detailed information about boomerang candidates. If managers hired only those boomerangs who previously performed well, then the boomerang performance advantage we identified may partly reflect persistent differences in the boomerangs' ability relative to that of the average new hire.

To examine whether boomerangs' performance advantage might be due, in part, to their higher quality than the average new hire, we studied their performance during their first employment spell at Asclepius. If boomerangs have higher overall ability, then their performance during this initial spell should also have been higher than that of their colleagues. We tested whether this was the case.

We first compared boomerangs' performance when they were new hires with that of

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other new hires entering jobs in the same function, paygrade and operating company at the same time. If the firm used the additional information available on former employees to rehire only high-ability boomerangs, we might expect returning boomerangs to have outperformed new hires in similar jobs when both entered the organization. This is not the case at Asclepius. The average performance rating for the limited number of boomerangs (n=79) for whom we have data on their first job spell prior to their initial exit fell 0.57 standard deviation below the mean, while the average performance rating among new hires in comparable jobs during the same time period fell just 0.50 standard deviation below the mean. This difference was not statistically significant.

We also observe the final jobs held and final performance ratings of 509 boomerangs during their previous employment periods at Asclepius. If the firms used the additional information available on former employees to rehire only high-ability boomerangs, we might also expect returning boomerangs to have been among the top performers in their jobs immediately prior to their exit. Here we also find the opposite. The average pre-exit boomerang performance rating fell 0.13 standard deviation below the mean, while the average performance rating of all other employees occupying the same job (n = 36,982; ~72 comparable employees for each boomerang) fell only 0.07 standard deviation below the mean. We also used multivariate regression to examine this, which allowed us to control for other factors that may impact performance, including an employee’s firm tenure, the pay grade, functional area, operating company, state in which they work, and the year. Table 4 presents the results of these analysis. The dependent variable is the standardized performance rating received in the year the boomerang exited (for each boomerang and all other employees occupying the same job). The negative and statistically significant coefficient for boomerang indicates that boomerangs received lower performance ratings than their colleagues did, when we control for these

additional factors.

These results suggest that the boomerang performance advantage revealed in our main analysis is unlikely to be attributable to managers selecting higher-ability boomerangs. Instead, the data suggest that boomerangs may be of lower quality than new hires.

A related concern is that boomerangs may be hired into systematically different jobs than those of new hires. Particularly relevant to our theory, if the firm hired boomerangs into the jobs they best fit, we would expect to see more boomerangs in jobs with greater coordination demands. We do not. The jobs boomerangs and new hires enter do not significantly differ in terms of internal interdependence (mean = 75.8 for new hires; 75.1 for boomerangs), relational demands (mean = 67.2 for new hires; 66.7 for boomerangs), and administrative coordination (mean = 39.3 for new hires; 38.2 for boomerangs). The jobs do not substantively differ in levels of complexity (mean = 62.6 for new hires; 61.1 for boomerangs) or autonomy (mean = 79.8 for new hires; 80.8 for boomerangs), either.

Work experience. Though the previous analyses suggest that boomerangs' are not of higher ability than new hires, there may be other differences that could account for our observed performance differences. One such factor may be work experience, as time spent in the workforce provides individuals with an understanding of the "world of work" (Super & Kidd, 1979: 256) that enables them to be productive employees (McDaniel, Schmidt, & Hunter, 1988; though see Van Iddekinge, Arnold, Frieder, & Roth, 2019). Absent data on full career histories, age, or date(s) of graduation of workers in our sample, we were unable to calculate total years of experience for the workers in our sample. However, Asclepius was able to provide us with rough estimates of each workers outside (non-Asclepius) work experience¹⁵. Because this measure does

¹⁵ These data indicated whether an employee had (1) under 1 year (n=6), (2) 1 to <3 years (n=72), (3) 3 to <6 years (n=401), (4) 6 to <11 years (n=1,672), (5) 11 to <16 years (n=2,520), or (6) 16 or more years (n=8,240) of outside

not account for the time that boomerangs previously spent working at Asclepius, it systematically underweights the total work experience of boomerangs (because we lack measures of prior tenure at Asclepius, we are unable to add this back in to calculate total work experience). Nevertheless, we reran our main analyses using this measure of outside experience as an additional control to evaluate its impact on our results.

We present the full results of this analysis in Table A1 of the Appendix. The results are largely similar to those presented in Table 2. Of note, we still find a significant boomerang performance advantage in Model 1, though the inclusion of the outside work experience variable does decrease the magnitude of the effect by about half ($b = .045$; $p = .048$). This decrease does not mean that boomerangs’ advantage is mediated by their having greater outside experience than new hires though. First, boomerangs actually have lower experience than new hires in our data, most likely because their previous tenure at Asclepius is excluded. Second, we see that experience has a negative effect on performance across all models, likely reflecting the fact that higher performers are more likely than average performance to reach similar roles earlier in their career (Baker, Gibbs, & Holmstrom, 1994; Cappelli & Conyon, 2018; Forbes, 1987; Rosenbaum, 1979). Instead, the reduction in the boomerang premium is most likely due to biases in our outside experience measure. Because boomerangs have low values of outside experience, they spuriously appear to be “young high fliers,” and the analysis erroneously attributes some of their performance advantage to this experience effect. We therefore believe that the results without this control are more accurate.

Examining within-boomerang heterogeneity. Although our theory treats boomerangs as a largely homogeneous group, they are likely to vary along important dimensions. Among the

work experience at the time of hire. For ease of interpretation, employ a continuous variable in our analyses, with values ranging from 1 (under 1 year of experience) to 6 (16 or more years’ experience).

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3 most salient of those differences are whether they return to a similar environment to the one that
4 they left, and the extent to which they were high versus low performers in their prior stint at
5 Asclepius. We explore how these variables shaped within-boomerang performance differences in
6 supplementary analyses.
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12 Although all of the boomerangs in our sample have previously worked at Asclepius, they
13 vary in whether they are returning to exactly the same environment that they left – notably to
14 work in the same work unit where they were previously employed or to work with the same
15 manager. Returning to the same unit or manager may carry additional benefits, in that it may
16 allow such boomerangs to rely on social support from pre-existing relationships with
17 organizational members and to benefit from a stronger understanding of the local social context
18 alongside the broader organization’s social system (Srikanth & Puranam, 2014). Newcomers
19 entering an organization with a pre-existing relationship with a current employee may receive
20 preferential access to information and social support unavailable to new hires lacking such
21 relationships, leading to improved job performance (Castilla, 2005). Moreover, variations in how
22 managers coordinate activities and how the members of a unit work together may lead to subtle
23 variations in the routines and process operating within different parts of the organization
24 (Srikanth & Puranam, 2014), and an employee’s understanding of these “local” variations may
25 also lead to improved job performance (Moreland, 1999). To address this possibility, we
26 explored whether the boomerang performance advantage was greater among – or even isolated to
27 – those boomerangs returning to work for the *same manager* or in the *same work unit* as they did
28 before their departure, contexts where they are most likely to have pre-existing social ties and/or
29 possess more localized knowledge.
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53 Similarly, boomerangs vary in the extent to which they were high versus low performers
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during their previous employment at Asclepius. We found above that future boomerangs did not on average have higher performance than stayers in their initial employment at Asclepius. One possible explanation is that prior performance at Asclepius was not predictive of post-rehire performance, obviating the value of focusing on rehiring higher-performing alums. We therefore also explored the effects of two indicators of prior performance: *previous performance*, which is measured as their standardized performance rating prior to their departure, and a dummy variable to indicate whether the boomerang exited voluntarily rather than involuntarily (*voluntary exit*).

The analyses presented in Table 5 examine performance variations in the sample of the 509 boomerangs for whom we have information about their prior job spell at Asclepius. Our dependent variable is the standardized performance during the first job spell.¹⁶ Because the familiarity might wane over time, we account for the total number of years between employment spells at Asclepius (*time away*) and its square, to account for curvilinearity. We also include the controls included in our main analyses.¹⁷

Model 1 includes the full set of control variables. Model 2 reveals that boomerangs who return to work for the same manager ($b = 0.345$; $p = 0.013$) outperformed other boomerangs. Model 3 reveals no significant effect for returning to the same unit ($b = 0.166$; $p = 0.354$). Model 4 shows that effect for returning to the manager remains significant when we also account for returning to the same unit ($b = 0.378$; $p = 0.02$). These results suggest that boomerangs' access to pre-existing ties and local knowledge related to having previously worked for the same manager enhances boomerangs' performance. This led us to explore the extent to which the boomerang advantage found in our main analysis might stem from boomerangs returning to these contexts.

¹⁶ The results are qualitatively similar when we use initial performance ratings.
¹⁷ Because we have fewer observations, we control for pay band (e.g., 20s; 30s) instead of pay grade and for division instead of operating company.

To do so, we first compared the performance of the 509 boomerangs for whom we have data on their previous job spell with that of all new hires made in this time period, using the same analyses presented in Model 1 of Table 2. The results, presented in Model 1 of Table 6, are consistent with our main analyses; on average, these boomerangs outperform new hires ($b = 0.095$; $p = 0.038$). We then dropped those boomerangs who returned to the same manager (Model 2) and same unit (Model 3), to see if the results held. They do. Together with our main results, these findings suggest that while some boomerangs may enjoy performance benefits rooted in pre-existing relationships and familiarity with the localized social context linked to a particular manager, their prior knowledge of an organization's social system has an effect on job performance independent of these factors.

Returning to Table 5, we introduce the prior performance variables in Models 5 through 7. Consistent with Swider et al. (2017), Model 5 reveals that boomerangs' track records during their previous stints at Asclepius are significant predictors of their performance on rehire ($b = 0.117$; $p = .000$). Specifically, we find that a one standard deviation increase in *previous performance* is associated with a performance increase on rehire of 12 percent of a standard deviation. In Model 6, we find even starker effects of prior *voluntary exit*, with those who leave voluntarily having performance that is .29 of a standard deviation higher than those who left involuntarily ($b = 0.292$; $p = .000$). These effects remain significant and similar in magnitude when accounted for in the same model (Model 7). These analyses indicate that the firm's observation of boomerangs' prior work does provide the potential to make better hiring decisions, even though those information asymmetries do not appear to lead the firm to focus on hiring higher performers in this case.

Subsequent mobility. While we focused on the performance implications of hiring former

employees compared to new hires, a natural follow-up question is whether boomerangs and new hires experience different subsequent job mobility, including promotions, lateral moves, demotions, and turnover. Both our theory and the results presented above suggest that, relative to new hires, boomerangs may be more likely to be subsequently promoted, given that promotion to a higher-level job typically indicates that employees have excelled in their current roles. The same may also be true of boomerangs' relative likelihood to be selected for lateral moves, with high performance bringing opportunities to expand their knowledge and skills by taking on new roles in different areas of the business (Campion, Cheraskin, & Stevens, 1994). In contrast, our theory and results suggest that new hires should be more likely to be demoted, as demotion to a lower-level job typically indicates that an employee has performed exceptionally poorly in their current role. New hires may also be more likely to either voluntarily or involuntarily exit the firm due to poor performance and/or fit.

Table 7 reflects our examination of these outcomes. We created dichotomous indicators of whether an employee was subsequently *promoted* to a job at a higher pay grade, subsequently moved into a new job at the same pay grade (*lateral move*), or subsequently *demoted* to a job at a lower pay grade from that of their first job period. We also created dichotomous indicators of whether an employee's first job period, upon the employee's (re)hire into the organization, ended when the employee voluntarily left the organization (*voluntary exit*) or was fired (*involuntary exit*). Approximately 17 percent of job periods ended in a promotion, 19 percent in a lateral move, 1 percent in a demotion, 10 percent in a voluntary exit, and 6 percent in an involuntary exit. The remaining 53 percent of job spells are right-censored, meaning that the worker remained in the same job at the end of our observation period in 2016. Most of these right-censored observations comprised individuals (re)hired into the organization in 2015 and 2016.

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3 All models use cox event history analysis, which are robust to right-censoring, and include the
4 same controls as those in our main analyses. Errors are clustered by individual to account for
5 non-independence. For ease of interpretation, we present coefficients as odds ratios.
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10 Model 1 reveals that boomerangs have a 1.55 ($p = .000$) times higher rate of promotion
11 from their first jobs spell, compared to new hires. Model 2 reveals that boomerangs have a 1.24
12 ($p = .001$) times higher rate of lateral mobility from their first jobs spell, compared to new hires.
13 Contrary to our expectations, Models 3 and 4 indicate that compared to new hires, boomerangs
14 are not significantly less likely to be demoted or voluntarily exit the organization after their first
15 job spell. Moreover, Model 5 indicates that compared to new hires, boomerangs are significantly
16 more likely to be fired from their first job spell upon (re)entry ($OR = 1.33$; $p = .023$). A potential
17 explanation for these findings is that hiring managers may be more likely to give new hires some
18 slack; that is, if managers expect boomerangs' knowledge of the social system to help them get
19 up to speed more quickly, they may be less tolerant of poor performance, putting boomerangs at
20 a higher risk of being fired during their first job spell.
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35 ***Performance over time.*** Our main analyses examine the annual performance rating of
36 each worker during each year in their first job spell after the worker (re)enters the organization.
37 Given that new external hires learn the organization's social system over time, we might expect
38 the boomerang performance advantage to lessen over time. In further analyses (available from
39 the authors), we examined this possibility by interacting boomerang status with job tenure. We
40 found no significant interaction, indicating that boomerangs maintain their advantage throughout
41 the course of their first job spell at Asclepius. However, we hesitate to draw conclusions from
42 this finding, as the average first job spell at Asclepius lasts only just over two years. Were
43 workers to spend a longer period in their first job, we might eventually see the performance of
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new hires and boomerangs converge. Indeed, studies comparing internal and external hires have shown that external hires typically “catch up” to internal hires over time, but this catching up takes between two-and-a-half to three years (Bidwell, 2011; DeOrtentiis, Van Iddekinge, Ployhart, & Heetderks, 2018).

Boomeranging as career advancement. Given that boomerangs outperform external hires, a natural question is whether leaving and then returning also provides a career advantage to boomerangs. That is, do boomerangs experience faster rates of career progression and salary growth compared to employees who remain with the firm? To answer this question, we compared the performance, advancement, and pay of boomerangs with those employees who (a) occupied the same job as the boomerangs did the year the latter left the organization and (b) remained employees at Asclepius through the year in which the boomerangs returned.¹⁸

The descriptive statistics reveal that “boomeranging” is not a better means of ascending the career ladder, compared to remaining with the firm. We found that upon their return, boomerangs performed worse (mean standardized rating = -.29) than did those who remained (mean = -0.01); only 35 percent of boomerangs outperformed their matched employees who remained. On average, boomerangs returned to a job 0.71 pay grades above the job they had previously occupied, while those who remained moved up an average 1.24 pay grades. Only 32 percent of boomerangs were able to jump ahead of their matched employees who remained.

To account for the fact that boomerangs and employees who remained performed differently at the time of the boomerangs’ exit and that boomerangs did not always return to the same job occupied by their matched employees who remained, we ran a series of OLS regressions in which we included a fixed effect for each comparison group, controls for

¹⁸ We were able to match to each boomerang an average of 17 employees who remained, resulting in a total sample size of 4,800 (n = 266 boomerangs, n = 4,614 employees who remained).

performance and firm tenure at the time of the boomerangs' initial exit, and controls for the pay grade, function, and operating company of the job occupied upon the boomerangs' return. Model 1 in Table 8 reveals that, even after we include these controls, boomerangs perform worse upon their return than comparable employees who remained. Model 2 similarly reveals that boomerangs tend to return to jobs at a lower pay grade than that of comparable remaining employees. Additional analyses reveal that remaining employees also earn more than boomerangs earn, although this results entirely from remaining employees being more likely to have advanced to a higher pay grade.

DISCUSSION

Although many firms once had policies forbidding the rehiring of employees, more organizations now embrace prior employees as a potential source of hire. Yet, we know little about how the performance of such former employees might differ from that of other hires. Drawing on the KBV, we argued that boomerangs' prior knowledge of the organization's social system makes it easier for them to engage in the complex coordination that underpins organizational performance. As a consequence, we propose that boomerangs will perform better than new hires, particularly in roles whose demands for coordination make knowledge of organizational social systems most important and in contexts where resistance to new entrants is likely greatest.

Our analysis of personnel data from a large health care company generally supported our predictions. We found that boomerang hires received stronger performance evaluations than other new hires, with particular performance advantages in roles with higher relational demands and involving more administrative coordination. This advantage was also greatest in units with fewer new hires and with managers who had been in the firm longer. The results did not support the hypothesis predicting that boomerangs would have a greater advantage in roles requiring

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greater internal interdependence. While we find this last point puzzling, knowledge of the social system may be important only for coordination requiring greater socioemotional subtlety in communication or for routines that must be formally invoked through administration.

While our theoretical model focused on boomerangs’ familiarity with the organization’s social system, we also explored evidence for other pathways by which boomerangs might achieve greater performance than new hires. We first examined whether informational advantages may have allowed hiring managers to better select high-ability boomerangs, resulting in a boomerang pool of higher quality than the new hiring pool. Our supplementary analyses revealed that the boomerang pool at Asclepius did not comprise especially high performers in their original tenure; in fact, boomerangs performed worse than their peers during their prior experience in the organization. Hence, the increased information that the employer had on boomerangs appears not to have contributed to those boomerangs’ performance advantage in this case.

Asclepius’ failure to exploit its information advantage about previous employees seems particularly surprising given that performance during prior employment was predictive of success as a boomerang. Had the firm only hired those potential boomerangs who had left voluntarily and/or had strong performance evaluations previously, the expected performance of boomerangs would have been even higher. We speculate that this failure to exploit prior employment information could be a consequence of two possible causes. First, Asclepius may have considered that the benefits of keeping prior employees’ records private outweighed any potential gains from making better hiring decisions. Second, hiring managers may have justifiably believed that the advantages brought by boomerangs’ prior knowledge of the firm would balance out the risks signaled by lackluster prior performance. Certainly, the magnitude of

the performance penalty associated with having left Asclepius involuntarily would roughly balance the boomerang performance advantage on average, meaning that involuntarily terminated boomerangs should perform no worse than other new hires, on average. While Asclepius could improve performance by only rehiring those previous employees who had performed well, there would likely not have been large enough numbers of such applicants.

We also explored whether boomerangs' greater familiarity with the specific local environment that they were returning to might offer them an additional advantage upon their reentry, either due to increased social support from pre-existing social ties or to having a familiarity with subtle variations associated with how certain managers or units operate. We found that boomerangs do benefit from returning to work with managers with whom they have experience. Our results suggested, however, that this was an additional rather than alternative explanation for the broader performance advantages of boomerangs in the organization. That these mechanisms are unlikely to explain the patterns we find at Asclepius provides additional evidence that knowledge of the organization's social system is a key mechanism underpinning boomerangs' performance advantage. However, we note that these alternative mechanisms may operate more strongly in other contexts.

Contributions

Our paper contributes to the strategic human capital literature and offers novel theoretical insights to the KBV. First, research in the nascent literature on boomerang employees has, to date, focused on questions such as which former employees return (Shipp et al., 2014), how such employees' intervening experiences might shape their performance upon return (Swider et al., 2017), and how boomerang status shapes employees' relationships with colleagues (Grohsjean, Dokko, & Yang, 2019). To more fully situate our understanding of boomerangs in the broader context of external hiring, we focused on what makes boomerangs unique relative to all other

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external hires: their prior experience with the organization’s social system.

We also contribute to the broader literature on source of hire by examining how job characteristics and work context shape the effectiveness of hires from different sources. Prior research examining the effects of various hiring sources has tended to simply control for these factors; we develop the idea that the advantages accrued by employees from certain hiring sources can depend on key job-characteristics and work-contexts. In doing so, we offer more nuanced understanding of not just whether but also in which contexts different hiring sources may be most valuable for firms.

Our study also offers two meaningful extensions of the KBV. The KBV theorizes how organizations’ social systems enable collective coordination through idiosyncratic webs of shared norms, routines, and identity (Grant, 1996; Kogut & Zander, 1992), and has generally been used to understand organization-level phenomena. We extend this theory to the individual level by considering how individuals’ familiarity with an organization’s social system shapes their abilities to perform their jobs within it. In doing so, we highlight the additional value of such familiarity in jobs and contexts requiring individuals to coordinate more extensively and engage more adeptly with other organizational members.

These findings indicate the KBV’s applicability to the distinct temporal context of hiring and socialization, two intertwined stages of employment that represent individuals’ earliest substantive encounters with an organization. Specifically, organizations’ onboarding efforts usually focus on formal policies and procedures governing professional conduct and job performance, but our findings, bolstered by the tenets of the KBV, suggest substantial benefits associated with offering new organizational entrants greater exposure to and experience with the organization’s social system, as part of their socialization processes. In related terms, our

findings highlight the value of considering how prospective hires from different talent pools vary in their familiarity with an organization's social system. While boomerangs are unique in that their prior work experience grants familiarity with the organization's social system, other prospective hires may gain some familiarity via prior personal encounters with the organization (e.g., through internships, in previous contract work) or through institutional connections associated with individuals' prior educational or employment affiliations.

Our findings also highlight that the KBV may entail a tradeoff with which organizations inherently contend as they foster and maintain their unique social systems: although strong (i.e., distinct, idiosyncratic) social systems may help organizations both facilitate internal coordination and provide a basis for differentiation and competitive advantage relative to competitors, the resulting social glue may simultaneously create challenges for the integration of external hires, who may feel and be perceived as outsiders in the organization. Indeed, we found that the performance gap between boomerangs and new hires was smaller in work groups with greater numbers of recent hires and less-tenured managers. On one hand, this insight suggests that younger firms and those with weaker social systems may find it easier to integrate new hires. On the other hand, this finding suggests that organizations with stronger and/or more-insular social systems may need to invest more extensively in the integration of new hires.

Limitations and Future Research Directions

Our findings must be interpreted in light of our study's limitations. First, our eight-year observation window prevented us from examining the longer-term employment outcomes of the boomerangs and new hires in our study. Our study focuses on the first job spell of boomerangs and new hires upon (re)entry into the organization, and the data suggest that boomerangs outperform new hires throughout their first job spell. A longer observation window would also allow examination of how hiring status affects individuals' employment outcomes after a

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subsequent lateral or upward job change in the firm.

Second, while we had access to information on prior experience in the organization for a subsample of boomerangs, we lacked information about the external (non-Asclepius) work experience of all individuals in the study. Hence, while our theory suggests that the main differences between boomerangs and new hires stem from boomerangs’ prior experience with Asclepius, these groups may also differ in other ways in the experiences that they bring with them. Accurately accounting for these differences in prior experiences, as well how individual differences in other human capital attributes (e.g., education, personality) influence boomerangs’ return experiences, would allow for a more complete comparison of boomerangs and new hires.

Third, the archival nature of our study means that our results are associational. We are unable to conclusively prove that the effects that we find reflect boomerangs’ greater knowledge of the organization rather than some other difference between boomerangs and new hires. Our supplementary analyses shed light on some of the other differences between boomerangs and new hires, suggesting for example that boomerangs are not of generally higher ability and that our findings do not simply reflect dyadic social ties between boomerangs and their hiring managers. Nonetheless, the lack of exogenous assignment to boomerang status and jobs means that our results should be interpreted with caution. It is possible that future work could identify plausible sources of exogeneity in such staffing, but we were unable to locate one here.

Fourth, while our motivation was to assess whether and for what roles hiring boomerangs is an effective talent-sourcing strategy for organizations, our model focused only on the individual performance outcomes of boomerangs and new hires in a single organization. Future research would benefit from examining how the hiring of boomerangs affects the attitudes, behaviors, and performance of their colleagues and work groups (DeOrtentiis et al., 2018). For

example, it would be interesting to explore whether and when boomerangs may be perceived as disloyal by remaining employees, and therefore face additional resistance (Grohsjean et al., 2019). Our findings suggest that any such negative effects of this resistance are outweighed by boomerangs' familiarity with the social system, but this may not be the case in all contexts.

Additionally, the organization we studied has a strong social system and a reasonable level of openness to hiring boomerangs; it would be useful to assess the generalizability of our findings across organizations that vary in the strength of their social systems and/or in their openness to accepting returning members.

Conclusion

By examining performance differences between boomerang and new hires, our study sheds light on the conditions in which boomerang candidates may be good choices as hires; by extension, the study reveals multiple key mechanisms underlying the boomerang advantage. In broad terms, our study demonstrates that relative to new external hires, boomerang employees perform better, but the extent of this performance advantage depends on key characteristics of the job and work context. Our findings offer important theoretical implications for scholars interested in external labor markets in general and boomerang employees in particular, as well as practical insights for organizations navigating issues related to hiring, talent management, and alumni relations.

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Table 1. Descriptive statistics and correlations

Variable	Mean	S.D.	VIF	1	2	3	4	5	6	7	8	9	10	11
1 Standardized rating	-0.18	1.00		1.00										
2 Boomerang	0.16	0.37	1.12	0.02	1.00									
3 Job complexity	61.96	14.54	2.96	0.06	-0.05	1.00								
4 Job autonomy	80.02	6.16	1.46	-0.01	0.06	-0.46	1.00							
5 Internal interdependence	75.83	5.48	1.18	0.01	-0.04	-0.09	0.00	1.00						
6 Relational demands	67.12	4.95	1.48	-0.01	-0.03	-0.26	-0.01	0.26	1.00					
7 Administrative coordination	39.23	14.09	2.35	0.04	-0.04	0.57	-0.25	0.24	0.23	1.00				
8 % recent new hires in work unit	0.30	0.27	1.34	-0.03	-0.28	0.01	0.02	-0.03	-0.06	-0.06	1			
9 Manager firm tenure (years)	11.15	7.60	1.04	0.00	0.09	0.00	0.04	0.00	-0.02	0.00	-0.18	1.00		
10 Job spell tenure (years)	1.79	1.17	1.19	0.12	0.00	-0.02	0.01	0.03	0.00	-0.01	-0.38	0.09	1.00	
11 Unit size	10.10	13.29	1.28	-0.01	-0.07	-0.06	-0.14	0.16	0.23	0.24	-0.09	0.01	0.03	1.00
12 Pay grade	27.14	5.75	1.27	0.00	0.04	0.23	0.12	-0.05	-0.13	0.02	-0.06	0.06	0.04	-0.33

n = 25,686

Table 2. The effect of boomerang status on performance during first job spell

VARIABLES	Dependent Variable: Standardized Performance Rating								
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8	Model 9
Boomerang	0.092*** (0.022)	0.469+ (0.281)	-0.221 (0.149)	-0.053 (0.062)	-0.119 (0.379)	0.131*** (0.027)	0.013 (0.038)	0.057 (0.043)	-0.117 (0.381)
Unit size	-0.002* (0.001)	-0.002** (0.001)	-0.002* (0.001)	-0.002* (0.001)	-0.002* (0.001)	-0.002* (0.001)	-0.002* (0.001)	-0.002* (0.001)	-0.002* (0.001)
Job spell tenure	0.094*** (0.008)	0.094*** (0.008)	0.095*** (0.008)	0.094*** (0.008)	0.095*** (0.008)	0.095*** (0.008)	0.094*** (0.008)	0.095*** (0.008)	0.095*** (0.008)
Job complexity	0.004* (0.002)	0.004* (0.002)	0.003* (0.002)	0.004* (0.002)	0.003* (0.002)	0.004* (0.002)	0.004* (0.002)	0.004* (0.002)	0.003* (0.002)
Job autonomy	0.003 (0.003)	0.003 (0.003)	0.003 (0.003)	0.003 (0.003)	0.002 (0.003)	0.003 (0.003)	0.003 (0.003)	0.003 (0.003)	0.003 (0.003)
Internal interdependence	-0.005* (0.002)	-0.005* (0.002)	-0.006* (0.002)	-0.005* (0.002)	-0.005* (0.002)	-0.006* (0.002)	-0.006* (0.002)	-0.006* (0.002)	-0.005* (0.002)
Relational demands	-0.008** (0.003)	-0.008** (0.003)	-0.010*** (0.003)	-0.008** (0.003)	-0.010*** (0.003)	-0.008** (0.003)	-0.008** (0.003)	-0.008** (0.003)	-0.010*** (0.003)
Administrative coordination	0.003* (0.001)	0.003* (0.001)	0.003* (0.001)	0.002 (0.001)	0.002 (0.001)	0.003* (0.001)	0.003* (0.001)	0.003* (0.001)	0.002 (0.001)
% recent new hires	0.044 (0.029)	0.046 (0.029)	0.048+ (0.029)	0.046 (0.029)	0.052+ (0.029)	0.067* (0.030)	0.042 (0.029)	0.062* (0.030)	0.065* (0.030)
Manager firm tenure	-0.001 (0.001)	-0.001 (0.001)	-0.001 (0.001)	-0.001 (0.001)	-0.001 (0.001)	-0.001 (0.001)	-0.002+ (0.001)	-0.002+ (0.001)	-0.002+ (0.001)
Boomerang x Internal interdependence		-0.005 (0.004)			-0.005 (0.004)				-0.005 (0.004)
Boomerang x Relational demands			0.009* (0.004)		0.011* (0.005)				0.010* (0.005)
Boomerang x Admin. coordination				0.004* (0.002)	0.005** (0.002)				0.004** (0.002)
Boomerang x % recent new hires						-0.255** (0.094)		-0.218* (0.094)	-0.171+ (0.095)
Boomerang x Manager firm tenure							0.006* (0.003)	0.005* (0.003)	0.005+ (0.003)
Constant	-0.407 (0.277)	-0.440 (0.278)	-0.344 (0.279)	-0.387 (0.278)	-0.338 (0.282)	-0.409 (0.277)	-0.390 (0.277)	-0.394 (0.277)	-0.333 (0.282)
Observations	25,686	25,686	25,686	25,686	25,686	25,686	25,686	25,686	25,686
R-squared	0.042	0.043	0.043	0.043	0.043	0.043	0.043	0.043	0.044
Degrees of freedom	112	113	113	113	115	113	113	114	117
Includes controls for:									
Pay grade	YES	YES	YES	YES	YES	YES	YES	YES	YES
Functional area	YES	YES	YES	YES	YES	YES	YES	YES	YES
Operating company	YES	YES	YES	YES	YES	YES	YES	YES	YES
State	YES	YES	YES	YES	YES	YES	YES	YES	YES
Year	YES	YES	YES	YES	YES	YES	YES	YES	YES

Robust standard errors in parentheses
*** p<0.001, ** p<0.01, * p<0.05, + p<0.10

Table 3. The effect of boomerang status on initial performance

VARIABLES	Dependent Variable: Standardized Performance Rating (1st rating in job)								
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8	Model 9
Boomerang	0.118*** (0.024)	0.074 (0.296)	-0.299* (0.149)	-0.012 (0.063)	-0.812* (0.393)	0.158*** (0.030)	-0.018 (0.041)	0.018 (0.048)	-0.862* (0.393)
Unit size	-0.002* (0.001)	-0.002* (0.001)	-0.002* (0.001)	-0.002* (0.001)	-0.002* (0.001)	-0.002* (0.001)	-0.002* (0.001)	-0.002* (0.001)	-0.002* (0.001)
Job spell tenure	0.368*** (0.023)	0.368*** (0.023)	0.369*** (0.023)	0.367*** (0.023)	0.368*** (0.023)	0.368*** (0.023)	0.368*** (0.023)	0.368*** (0.023)	0.368*** (0.023)
Job complexity	0.003+ (0.002)	0.003+ (0.002)	0.003+ (0.002)	0.003+ (0.002)	0.003+ (0.002)	0.003+ (0.002)	0.003+ (0.002)	0.003+ (0.002)	0.003+ (0.002)
Job autonomy	0.001 (0.003)	0.001 (0.003)	0.000 (0.003)	0.001 (0.003)	0.000 (0.003)	0.001 (0.003)	0.001 (0.003)	0.001 (0.003)	0.001 (0.003)
Internal interdependence	-0.006** (0.002)	-0.007** (0.003)	-0.006** (0.002)	-0.006** (0.002)	-0.007** (0.003)	-0.007** (0.002)	-0.006** (0.002)	-0.007** (0.002)	-0.007** (0.003)
Relational demands	-0.006* (0.003)	-0.005* (0.003)	-0.007** (0.003)	-0.006* (0.003)	-0.008** (0.003)	-0.006* (0.003)	-0.006* (0.003)	-0.006* (0.003)	-0.008** (0.003)
Administrative coordination	0.003** (0.001)	0.003** (0.001)	0.003** (0.001)	0.003* (0.001)	0.003* (0.001)	0.003** (0.001)	0.003** (0.001)	0.003** (0.001)	0.003* (0.001)
% recent new hires	0.083* (0.034)	0.082* (0.034)	0.087** (0.034)	0.085* (0.034)	0.090** (0.034)	0.105** (0.035)	0.080* (0.034)	0.095** (0.035)	0.099** (0.035)
Manager firm tenure	-0.002 (0.001)	-0.002 (0.001)	-0.002 (0.001)	-0.002 (0.001)	-0.002 (0.001)	-0.002 (0.001)	-0.004** (0.001)	-0.003** (0.001)	-0.003** (0.001)
Boomerang x Internal interdependence		0.001 (0.004)			0.003 (0.004)				0.003 (0.004)
Boomerang x Relational demands			0.013** (0.004)		0.016*** (0.005)				0.015** (0.005)
Boomerang x Admin. coordination				0.003* (0.002)	0.004** (0.002)				0.004* (0.002)
Boomerang x % recent new hires						-0.221* (0.106)		-0.153 (0.108)	-0.120 (0.108)
Boomerang x Manager firm tenure							0.011*** (0.003)	0.011*** (0.003)	0.010*** (0.003)
Constant	-0.069 (0.379)	-0.066 (0.379)	0.023 (0.380)	-0.050 (0.379)	0.090 (0.382)	-0.068 (0.379)	-0.054 (0.379)	-0.054 (0.379)	0.093 (0.381)
Observations	12,911	12,911	12,911	12,911	12,911	12,911	12,911	12,911	12,911
R-squared	0.077	0.077	0.078	0.078	0.079	0.078	0.079	0.079	0.080
Degrees of freedom	114	115	115	115	117	115	115	116	119
<i>Includes controls for:</i>									
Pay grade	YES	YES	YES	YES	YES	YES	YES	YES	YES
Functional area	YES	YES	YES	YES	YES	YES	YES	YES	YES
Operating company	YES	YES	YES	YES	YES	YES	YES	YES	YES
State	YES	YES	YES	YES	YES	YES	YES	YES	YES
Year	YES	YES	YES	YES	YES	YES	YES	YES	YES

Standard errors in parentheses

*** p<0.001, ** p<0.01, * p<0.05, + p<0.10

Table 4. Boomerangs’ performance rating prior to initial exit (versus all other employees)

Model 1	
VARIABLES	Standardized Performance Rating (year of boomerang exit)
Boomerang	-0.100* (0.045)
Firm tenure	0.000** (0.000)
Unit size	-0.002* (0.001)
Constant	0.466 (1.047)
Observations	37,491
R-squared	0.041
Degrees of freedom	127
<i>Includes controls for:</i>	
Pay grade	YES
Functional area	YES
Operating company	YES
State	YES
Year	YES

Robust standard errors in parentheses
*** p<0.001, ** p<0.01, * p<0.05, + p<0.10

Table 5. Performance variation among boomerangs

VARIABLES	Dependent Variable: Standardized Performance Rating						
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7
Unit size	-0.005 (0.005)	-0.005 (0.005)	-0.005 (0.005)	-0.005 (0.005)	-0.005 (0.005)	-0.005 (0.005)	-0.005 (0.005)
Job spell tenure	0.109* (0.047)	0.104* (0.047)	0.109* (0.047)	0.104* (0.047)	0.099* (0.047)	0.124** (0.047)	0.117* (0.047)
Job complexity	0.012 (0.007)	0.012 (0.007)	0.012 (0.007)	0.012 (0.007)	0.010 (0.007)	0.012+ (0.007)	0.011 (0.007)
Job autonomy	-0.013 (0.012)	-0.011 (0.012)	-0.013 (0.012)	-0.011 (0.012)	-0.012 (0.012)	-0.014 (0.012)	-0.015 (0.012)
Internal interdependence	0.033** (0.012)	0.032** (0.012)	0.033** (0.012)	0.032** (0.012)	0.030** (0.012)	0.031** (0.012)	0.030** (0.012)
Relational demands	0.000 (0.013)	-0.001 (0.013)	0.001 (0.013)	-0.001 (0.013)	-0.000 (0.013)	-0.002 (0.013)	-0.001 (0.013)
Administrative coordination	-0.015** (0.005)	-0.014** (0.005)	-0.015** (0.005)	-0.014** (0.005)	-0.013** (0.005)	-0.013** (0.005)	-0.013* (0.005)
% recent new hires	-0.030 (0.203)	-0.032 (0.202)	-0.038 (0.203)	-0.029 (0.203)	-0.059 (0.201)	-0.008 (0.201)	-0.035 (0.200)
Manager firm tenure	0.009* (0.005)	0.009* (0.005)	0.010* (0.005)	0.009+ (0.005)	0.010* (0.005)	0.009* (0.005)	0.010* (0.005)
Years away	-0.089 (0.102)	-0.074 (0.101)	-0.085 (0.102)	-0.074 (0.102)	-0.092 (0.101)	-0.164 (0.103)	-0.167 (0.102)
Years away squared	0.013 (0.015)	0.011 (0.014)	0.013 (0.015)	0.010 (0.015)	0.012 (0.014)	0.022 (0.015)	0.022 (0.015)
Returned to same manager		0.345* (0.139)		0.378* (0.162)	0.344* (0.161)	0.368* (0.160)	0.343* (0.160)
Returned to same unit			0.166 (0.179)	-0.081 (0.207)	-0.057 (0.206)	-0.149 (0.206)	-0.121 (0.205)
Previous rating					0.117*** (0.033)		0.093** (0.034)
Voluntary exit from previous job						0.292*** (0.069)	0.253*** (0.070)
Constant	-2.736 (1.700)	-2.951+ (1.697)	-2.751 (1.700)	-2.964+ (1.698)	-2.571 (1.690)	-2.692 (1.682)	-2.417 (1.678)
Observations	874	874	874	874	874	874	874
R-squared	0.080	0.086	0.080	0.086	0.100	0.106	0.114
Degrees of freedom	39	40	40	41	42	42	43
<i>Includes controls for:</i>							
Pay band	YES	YES	YES	YES	YES	YES	YES
Functional area	YES	YES	YES	YES	YES	YES	YES
Division	YES	YES	YES	YES	YES	YES	YES
Year	YES	YES	YES	YES	YES	YES	YES

Robust standard errors in parentheses

*** p<0.001, ** p<0.01, * p<0.05, + p<0.10

Table 6. The effect of boomerang status (among those with pre-initial exit observations) on performance during first job spell

VARIABLES	Dependent Variable: Standardized Performance Rating		
	Model 1	Model 2	Model 3
		Excluding boomerangs returning to same manager	Excluding boomerangs returning to same unit
Sample	All		
Boomerang	0.095* (0.046)	0.099* (0.047)	0.105* (0.047)
Unit size	-0.002* (0.001)	-0.002* (0.001)	-0.002* (0.001)
Job spell tenure	0.095*** (0.007)	0.096*** (0.007)	0.095*** (0.007)
Job complexity	0.004* (0.002)	0.004* (0.002)	0.004* (0.002)
Job autonomy	0.003 (0.003)	0.003 (0.003)	0.003 (0.003)
Internal interdependence	-0.000 (0.002)	-0.000 (0.002)	-0.000 (0.002)
Relational demands	-0.008** (0.002)	-0.008** (0.002)	-0.008** (0.002)
Administrative coordination	0.000 (0.001)	0.000 (0.001)	0.000 (0.001)
% recent new hires	0.007 (0.034)	0.007 (0.034)	0.007 (0.034)
Manager firm tenure	-0.001 (0.001)	-0.001 (0.001)	-0.001 (0.001)
Constant	-0.964* (0.390)	-0.955* (0.390)	-0.961* (0.390)
Observations	15,628	15,596	15,608
R-squared	0.070	0.070	0.070
Degrees of freedom	110	110	110
<i>Includes controls for:</i>			
Pay grade	YES	YES	YES
Functional area	YES	YES	YES
Operating company	YES	YES	YES
State	YES	YES	YES
Year	YES	YES	YES

Robust standard errors in parentheses
*** p<0.001, ** p<0.01, * p<0.05, + p<0.10

Table 7. The effect of boomerang status on subsequent mobility

	Model 1	Model 2	Model 3	Model 5	Model 5
VARIABLES	Promotion	Lateral	Demotion	Voluntary Termination	Involuntary Termination
Note: Results presented as odds ratios					
Boomerang	1.551*** (0.108)	1.240** (0.081)	0.891 (0.225)	1.080 (0.096)	1.332* (0.168)
Unit size	0.994* (0.002)	0.999 (0.003)	0.995 (0.009)	0.995 (0.004)	1.020*** (0.004)
Job complexity	1.015* (0.006)	0.995 (0.005)	0.974 (0.023)	1.006 (0.007)	0.993 (0.008)
Job autonomy	0.980* (0.008)	1.007 (0.008)	0.893*** (0.028)	1.001 (0.010)	0.979+ (0.012)
Internal interdependence	1.010 (0.008)	0.996 (0.007)	1.015 (0.024)	0.993 (0.009)	1.037** (0.014)
Relational demands	0.991 (0.009)	0.993 (0.008)	1.002 (0.026)	0.978* (0.009)	1.002 (0.014)
Administrative coordination	1.004 (0.004)	0.999 (0.004)	1.023+ (0.013)	0.993 (0.005)	1.001 (0.007)
% recent new hires	4.939*** (0.432)	4.290*** (0.356)	6.219*** (1.652)	4.984*** (0.508)	6.322*** (0.935)
Manager firm tenure	1.003 (0.003)	0.995 (0.003)	0.997 (0.009)	0.993+ (0.004)	0.997 (0.006)
Observations	25,686	25,686	25,686	25,686	25,686
Log likelihood	-18271.89	-20435.78	-1480.47	-11382.83	-5691.56
Chi-squared	4153.9	4116.96	7803.04	1300.29	3176.24
<i>Includes controls for:</i>					
Pay grade	YES	YES	YES	YES	YES
Functional area	YES	YES	YES	YES	YES
Operating company	YES	YES	YES	YES	YES
State	YES	YES	YES	YES	YES
Year	YES	YES	YES	YES	YES

Robust standard errors in parentheses

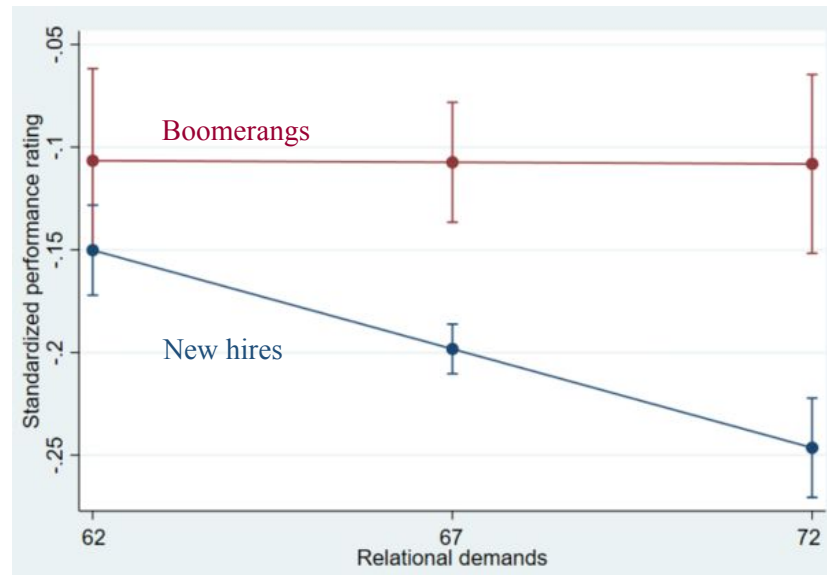
*** p<0.001, ** p<0.01, * p<0.05, + p<0.10

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Table 8. Comparing the outcomes for boomerangs versus employees who remain

	Model 1	Model 2
VARIABLES	Initial performance rating upon boomerang return	Pay grade at time of boomerang return
Boomerang	-0.261*** (0.069)	-0.402*** (0.118)
Performance rating at time of boomerang exit	0.233*** (0.016)	0.363*** (0.026)
Firm tenure at time of boomerang exit	-0.001*** (0.000)	-0.002*** (0.000)
Constant	-1.991+ (1.070)	28.215*** (0.496)
Observations	4,880	4,880
Number of groups	266	266
R-squared	0.071	0.104
Degrees of freedom	67	53
<i>Includes controls for the following at time of boomerang return:</i>		
Pay grade	YES	NO
Functional area	YES	YES
Operating company	YES	YES

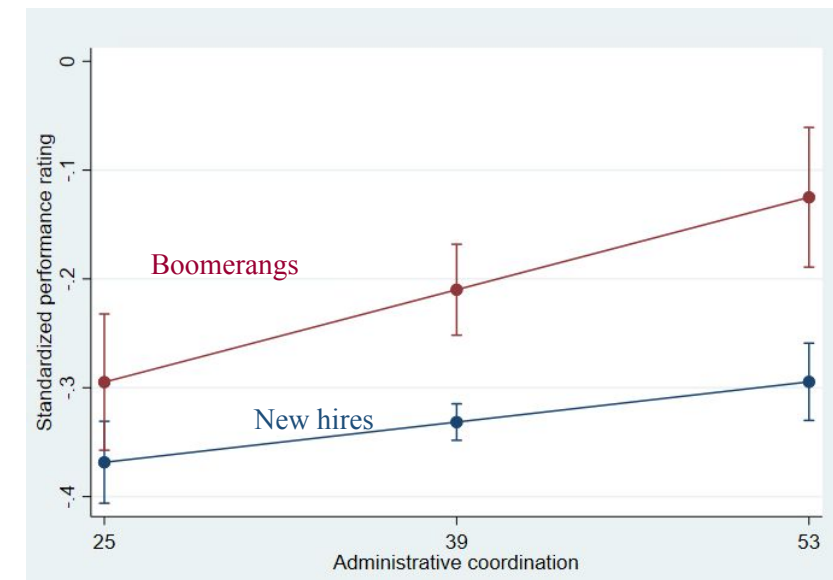
Standard errors in parentheses
*** p<0.001, ** p<0.01, * p<0.05, + p<0.10

Figure 1. Interaction of boomerang status and relational demands

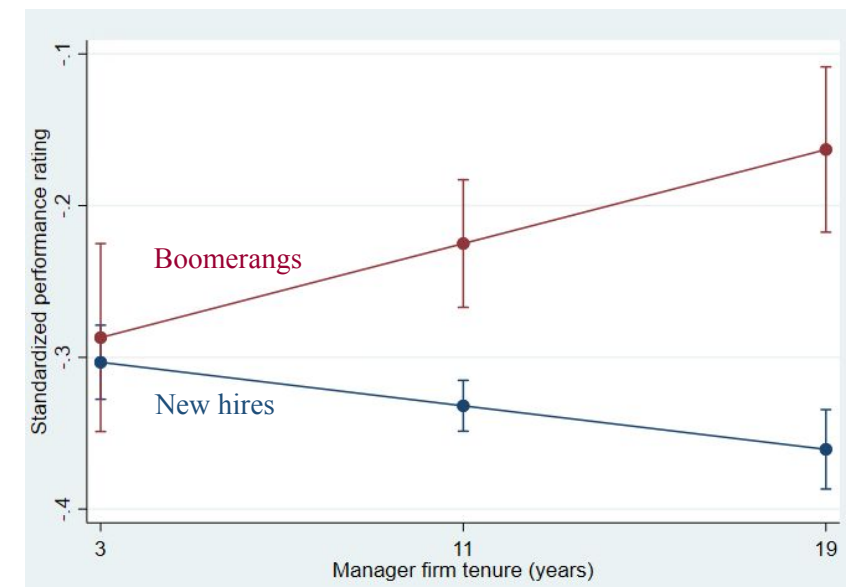
Note: Values for relational demands are at ± 1 SD of the mean.

Figure 3. Interaction of boomerang status and % recent new hires

Note: Values for % of recent new hires are at ± 1 SD of the mean.

Figure 2. Interaction of boomerang status and administrative coordination

Note: Values for administrative coordination are at ± 1 SD of the mean.

Figure 4. Interaction of boomerang status and managerial firm tenure

Note: Values for manager firm tenure are at ± 1 SD of the mean.

APPENDIX

Table A1. The effect of boomerang status on performance during first job spell (w/ outside experience control)

VARIABLES	Dependent Variable: Standardized Performance Rating								
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8	Model 9
Boomerang	0.045*	0.369	-0.250+	-0.086	-0.187	0.073**	-0.026	0.004	-0.190
	(0.023)	(0.280)	(0.148)	(0.062)	(0.376)	(0.028)	(0.038)	(0.043)	(0.378)
Unit size	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Job spell tenure	0.097***	0.097***	0.097***	0.096***	0.097***	0.098***	0.097***	0.097***	0.098***
	(0.008)	(0.008)	(0.008)	(0.008)	(0.008)	(0.008)	(0.008)	(0.008)	(0.008)
Outside work experience	-0.109***	0.109***	-0.109***	0.109***	0.108***	-0.108***	0.109***	0.108***	-0.107***
	(0.010)	(0.010)	(0.010)	(0.010)	(0.010)	(0.010)	(0.010)	(0.010)	(0.010)
Job complexity	0.003*	0.003*	0.003*	0.003*	0.003+	0.003*	0.003*	0.003*	0.003+
	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)
Job autonomy	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002
	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)
Internal interdependence	-0.006*	-0.005*	-0.006*	-0.006*	-0.005*	-0.006*	-0.006*	-0.006*	-0.005*
	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)
Relational demands	-0.009**	0.009***	-0.010***	0.009***	0.010***	-0.009***	0.009***	0.009***	-0.010***
	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)
Admin. coordination	0.003*	0.003*	0.003*	0.002+	0.002+	0.003*	0.003*	0.003*	0.002+
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
% recent new hires	0.043	0.045	0.047	0.045	0.051+	0.060*	0.042	0.055+	0.058+
	(0.028)	(0.028)	(0.028)	(0.028)	(0.029)	(0.030)	(0.028)	(0.030)	(0.030)
Manager firm tenure	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001	-0.002	-0.002	-0.002
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Boomerang x Int. interdependence		-0.004 (0.004)			-0.004 (0.004)				-0.004 (0.004)
Boomerang x Relational demands			0.009* (0.004)		0.011* (0.005)				0.010* (0.005)
Boomerang				0.003*	0.005**				0.004**

x Admin. coordination				(0.001)	(0.002)				(0.002)
Boomerang						-0.182+		-0.148	-0.105
x % recent new hires						(0.093)		(0.094)	(0.095)
Boomerang							0.006*	0.005*	0.005+
x Manager firm tenure							(0.003)	(0.003)	(0.003)
Constant	0.367	0.342	0.433	0.381	0.441	0.362	0.379	0.373	0.441
	(0.332)	(0.332)	(0.333)	(0.332)	(0.335)	(0.331)	(0.331)	(0.331)	(0.334)
Observations	25,686	25,686	25,686	25,686	25,686	25,686	25,686	25,686	25,686
R-squared	0.049	0.049	0.050	0.050	0.050	0.050	0.050	0.050	0.050
Degrees of freedom	113	114	114	114	116	114	114	115	118
<i>Includes controls for:</i>									
Pay grade	YES	YES	YES	YES	YES	YES	YES	YES	YES
Functional area	YES	YES	YES	YES	YES	YES	YES	YES	YES
Operating company	YES	YES	YES	YES	YES	YES	YES	YES	YES
State	YES	YES	YES	YES	YES	YES	YES	YES	YES
Year	YES	YES	YES	YES	YES	YES	YES	YES	YES

Robust standard errors in parentheses; *** p<0.001, ** p<0.01, * p<0.05, + p<0.10

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