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Towards an understanding of talent management as a phenomenon-driven field using bibliometric and content analysis

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ABSTRACT

This review adopts a phenomenon-driven approach in reviewing the talent management (TM) literature, applying methods derived from bibliometrics and content analysis to evaluate the state of the field and derive implications for research and practice unbiased towards a-priori assumptions of which frameworks or methods are most adequate. Based on analyses of publication volume, journals and their impact factors, most cited articles and authors, preferred methods, and represented countries, we assess whether TM should be approached as an embryonic, growth, or mature phenomenon, and examine dominant (i.e., resource-based view, international human resource management, employee assessment, and institutionalism) versus 'alternative' (i.e., knowledge management, career management, strength-based approach, and social exchange theory) theoretical frameworks. Our goal is to assist TM researchers in positioning their work more explicitly vis-à-vis current debates in the existing literature and encourage them to think about which approach best fits their research aims, questions, and designs.

Although at present only limited consensus exists as to the definition of talent and TM and the appropriate methods to study these constructs, the academic literature on TM is noticeably expanding from year to year (Thunnissen, Boselie, & Fruytier, 2013a), seemingly unhindered by this "lack of theory" (Reilly, 2008, p. 381). It would appear, then, that research on TM can be categorized as phenomenon-driven, as opposed to theory-driven (Dries, 2013b). Whereas traditional, theory-driven research follows a process whereby hypotheses are developed based on gaps detected within the current knowledge of a field—guided by established definitions, operationalizations, and measures—phenomenon-driven research takes a different route, one that "starts with the generation of facts, most typically from large-sample analysis, that can inform us as to what we need a theory for […] Then, as we get into exploring the whys and hows, a combination of quantitative and qualitative studies will be fruitful" (Hambrick, 2007, p. 1349). von Krogh, Lamastra, and Haefliger (2012) identify two interdependent indications of a topic of study qualifying as a 'phenomenon': first, no currently available theory has enough scope to account for the phenomenon or for relevant cause-and-effect relationships associated with it; and second, no research design or methodology is superior to others in exploring the different aspects of the phenomenon. Taking the above into account—along with the fact that TM emerged as a 'hot topic' in human resource (HR) practice almost a decade before it became an academic topic of interest (Chambers, Foulon, Handfield-Jones, Hankin, & Michaels, 1998)—we conclude that TM as a field is, indeed, phenomenon-driven, which has distinct implications for future research and theory development.

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A number of reviews have been published in recent years, each approaching the act of reviewing the TM literature from a different angle: Lewis and Heckman (2006) review issues with the definition of TM based largely on the practitioner literature; Collings and Mellahi (2009) develop a conceptual model of strategic TM, emphasizing the centrality of 'pivotal positions'; Tarique and Schuler (2010) create an integrative framework for understanding and advancing research on global talent management (GTM); Dries (2013a) identifies a number of discrepancies, tensions, and taken-for-granted assumptions based on a multidisciplinary review of the TM literature; Thunnissen et al. (2013a) take a more critical review approach, drawing attention to the economic and non-economic (i.e., social and moral) value that can be created by TM at three levels: individual, organizational, and societal; and Cappelli and Keller (2014) review the potential implications of present-day labor market challenges and uncertainties for TM theory and practice.

The current review takes a more phenomenon-driven approach to reviewing the TM literature than existing reviews, applying methods derived from bibliometrics and content analysis to come to a more or less 'objective' and 'quantifiable' assessment of the state of the TM literature at the present time without making a-priori assumptions about which theoretical and methodological approaches to TM are more legitimate than others. Based on analyses of publication volume, journals and their impact factors, most cited articles and authors, preferred methods, and represented countries, we assess whether TM should be approached as an embryonic, growth, or mature phenomenon (von Krogh et al., 2012), and establish a research agenda based on our analysis of dominant versus 'alternative' theoretical frameworks found in the TM literature. In so doing, our aim is to assist (aspiring or active) TM researchers in positioning their work more explicitly vis-à-vis current debates in the existing TM literature and encourage them to think about which theoretical approach best fits their research aims, questions, and designs—preferably prior to collecting data.

1. Methodology

A sequential, two-step review approach was followed so as to compile a database of relevant TM articles for our bibliometric and content analyses.

1.1. Step 1: data collection and cleaning

Using the search term 'talent management' we searched the ISI Web of Science (WoS) and the Scopus databases for relevant articles. Following recommendations in the bibliometrics literature (e.g., Ponomarev, Lawton, Williams, & Schnell, 2014), we restricted our search to English-language publications in peer-reviewed academic journals that mentioned 'talent management' in their title, abstract, or keywords, excluding specific types of publications such as brief communications and commentaries, editorial notes, symposia, presentation slides, and book reviews. Our search procedure generated 176 articles for the ISI WoS database and 264 articles for the Scopus database, of which 162 overlapping—resulting in a list of 278 articles, all published between January 2001 and May 2014 (i.e., when we closed our data collection procedure). Although typically, the earliest reference on TM mentioned in the literature is Chambers et al. (1998)—a practitioner article introducing the notion of the 'war for talent' based on a 1997 McKinsey survey (also discussed in the Michaels, Handfield-Jones, & Axelrod, 2001 book)—our search in the ISI WoS and Scopus databases did not find any peer-reviewed publications on TM prior to 2001. Five articles proved impossible to find in a full-text format, resulting in a final database of 273 articles.

1.2. Step 2: data coding

Based on existing reviews of the TM literature (i.e., Cappelli & Keller, 2014; Collings & Mellahi, 2009; Dries, 2013a; Lewis & Heckman, 2006; Tarique & Schuler, 2010; Thunnissen et al., 2013a), the four authors of the present paper jointly developed a coding template, including the following sections: research question (open text field); problem setting (open text field); country affiliation of the first author; country of data collection; methods used; TM outcomes of interest; independent and dependent variables measured; theoretical framework; definition of talent; and definition of TM. We then divided the 273 articles across the author team for coding. We first ran a pilot test of our coding template on a randomly selected set of 15 articles, with the aim of achieving an adequate level of inter-rater reliability. Subsequently, each member of the research team coded his or her allotted articles in groups of 25 articles. The four authors compared coding experiences during and after the pilot test, and again after each bundle of 25 coded articles. The pilot test revealed that for several of the 15 articles, we were unable to code any of the sections in our coding template; therefore, we decided to introduce the option of excluding an article from further analysis, accompanied by an open text box in which a coder had to indicate why he or she felt it was impossible to code the article according to our predefined template. We ended up not coding 135 articles from our database (49.4%). The most common reasons for exclusion from further analyses were: having a strong 'practitioner' focus without any mention at all of definitions, theoretical frameworks, or references to the academic literature; and mentioning the term talent management only once or twice and without further discussion, in an article that primarily deals with another topic (e.g., cloud computing, corporate governance, supply chain management). Our final database thus contained 139 fully-coded articles—strikingly, all articles retained for coding turned out to be from 2006 or after. Below, we discuss the findings of the bibliometric and content analyses we performed on the data resulting from our coding efforts.

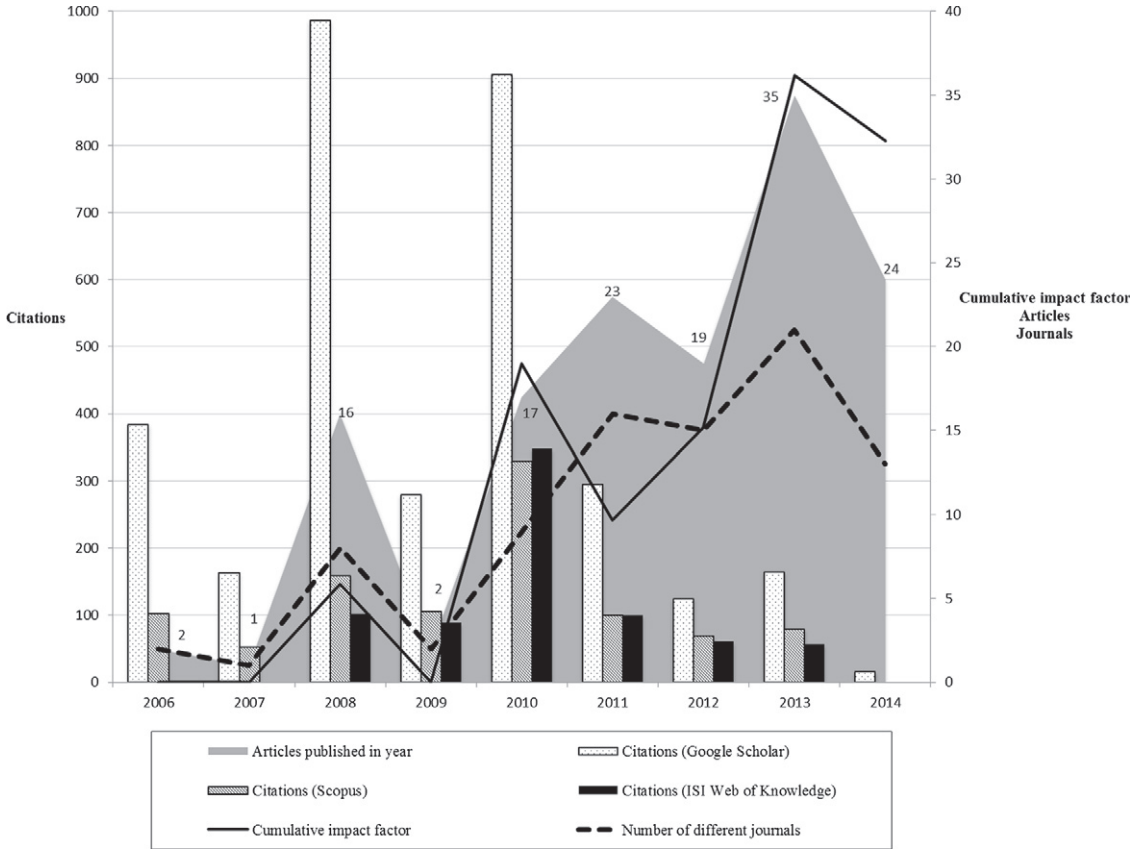
2. Bibliometric analysis

2.1. Publication volume

Of the 139 articles included in our bibliometric analysis, 84.8% (i.e., 118 articles) were published in 2010 and after—amounting to 5.6 times the number of articles published before 2010—which clearly suggests increased scholarly interest in TM over the course of the last five years (see Fig. 1). In fact, up until 2007 academic publications on TM were quasi non-existent. In 2008, the number of published articles rose markedly, with 16 articles appearing that year—mostly due to the publication of the two first special issues on TM (i.e., D'Annunzio-Green, Maxwell, & Watson, 2008; Reilly, 2008)—although it declined again in 2009 (i.e., 2 articles). From 2010 to 2014, a gradual increase in publications can be observed, with "peaks" attributable to the six more recent special issues that have appeared (i.e., Al Ariss, Cascio, & Paauwe, 2014; Collings, Scullion, & Vaiman, 2011; Dries, 2013b; McDonnell, Collings, & Burgess, 2012; Scullion, Collings, & Caligiuri, 2010; Vaiman & Collings, 2013), especially noticeable in 2013 (i.e., 35 articles, which corresponds to 25% of all publications on TM that have appeared to date). As is clear from our analyses, the special issues listed above have produced a significant share of the TM literature: 56 articles (40% of the articles in our database), of which 13 in 2008, 9 in 2010, 5 in 2011 and 2012, 13 in 2013, and 11 in 2014 (published before May 2014). The upward trend seems to be continuing, with 17% of all publications in our database (i.e., 24 articles) having appeared in the first five months of this year (2014).

2.2. Journals and impact

The 139 articles in our database appeared in a total of 69 journals, indicating that the TM field does not yet have established outlets for publishing its research, a typical indication of it being in a 'growing' state. Mature fields of study tend to have their research concentrated in a smaller number of specialized journals, ensuring less 'scattering' of knowledge and more straightforward search



Notes. Only articles retained for coding are included in the frequency counts; for 2014, the graph shows the number of articles published up until May; the last update of the citation data took place in July of 2014; cumulative IF was calculated by adding the IFs of all TM articles published in the journal of interest up until 2014

Fig. 1. Publication volume, citations, journals, and cumulative impact of the TM literature up until 2014. *Notes.* Only articles retained for coding are included in the frequency counts; for 2014, the graph shows the number of articles published up until May; the last update of the citation data took place in July of 2014; cumulative IF was calculated by adding the IFs of all TM articles published in the journal of interest up until 2014.

strategies for a given topic (cf. von Krogh et al., 2012). 75.4% of these journals published just one article on TM; 10.1% published two articles; and 2.9% published three articles. Only two journals published more than ten articles on TM—i.e., Journal of World Business (21 articles; 15.1%) and International Journal of Human Resource Management (15 articles; 10.8%)—while Human Resource Management Review came in third place with 7 articles (5%). Taken together, these three journals published roughly one in three articles on TM published to date—perhaps unsurprisingly so, as these journals have published four out of the eight special issues that have appeared about TM. It would appear that these three journals, at present, are the primary hub for TM research, and seem to want to position themselves on the topic.

Impact factor (IF) and citation data are widely used as proxy indicators of quality in bibliometric analysis (Ponomarev et al., 2014). While a journal's IF is used to evaluate its relative importance compared to other journals in its subject area, citation count measures the impact of the articles published in that journal have on the work of others in the same field. As is seen in Table 1, Journal of World Business has the largest cumulative impact, followed by International Journal of Human Resource Management and Human Resource Management Review. Human Resource Management Review has a higher citation count for its articles on TM than International Journal of Human Resource Management, however, with articles that appeared in the former journal being cited two to seven times as often as those in the latter journal, depending on which citation database is consulted (i.e., ISI WoS, Scopus, or Google Scholar).

Looking at trends over time, Fig. 2 clearly shows that the number of publications in journals with an IF has increased sharply from 2011 onwards, while the number of publications in journals without an IF decreased simultaneously, a trend that will likely continue in the future. Although we should certainly interpret these trends with caution—considering the relative recency of the TM phenomenon—this might be an indication of increasing academic interest in TM, manifesting itself in increasingly higher-quality research, as well as of increased legitimacy of TM as a 'publishable' topic in the eyes of editors and reviewers.

2.3. Most cited articles and authors

Even more so than by journals, fields of study tend to be defined by seminal articles and authors—i.e., those that are cited most frequently (Ponomarev et al., 2014). Table 2 gives an overview of the most frequently cited articles and authors in TM. Across the different databases, the work of Collings—and especially his paper with Mellahi from 2009—emerges as most influential to date. As we will see in the Dominant theoretical frameworks section, Collings and Mellahi's (2009) work is often cited because it contains a widely used definition of TM (referenced by more than one in three of the articles we analyzed). If we consider the number of citations earned on an author basis (across all TM publications from that author), we see that Lewis, Heckman, and Mellahi rank at the top. Collings, however, has published more articles on TM (6) than most of the other authors in the list—all of which have been cited less frequently than Collings and Mellahi (2009)—which explains why his citation average is somewhat lower. We should mention that there are several other authors that have published over five articles on TM either as a first author or a co-author—i.e., Dries (10 articles), Scullion (9 articles), Farndale (5 articles), and Iles (5 articles)—but not all of them show up in the current 'most cited' list as some of their articles were published in 2013 or 2014. Clearly, the number of citations earned by an article is expected to increase over time (although not indefinitely), causing an apparent bias against more recent publications (as can also be see in Fig. 1). Other work that did rank at the top of our citation analyses was Lewis and Heckman (2006), Tarique and Schuler (2010), Bhattacharya, Sen, and Korschun (2008), Cappelli (2008), Farndale, Scullion, and Sparrow (2010), and Mellahi and Collings (2010).

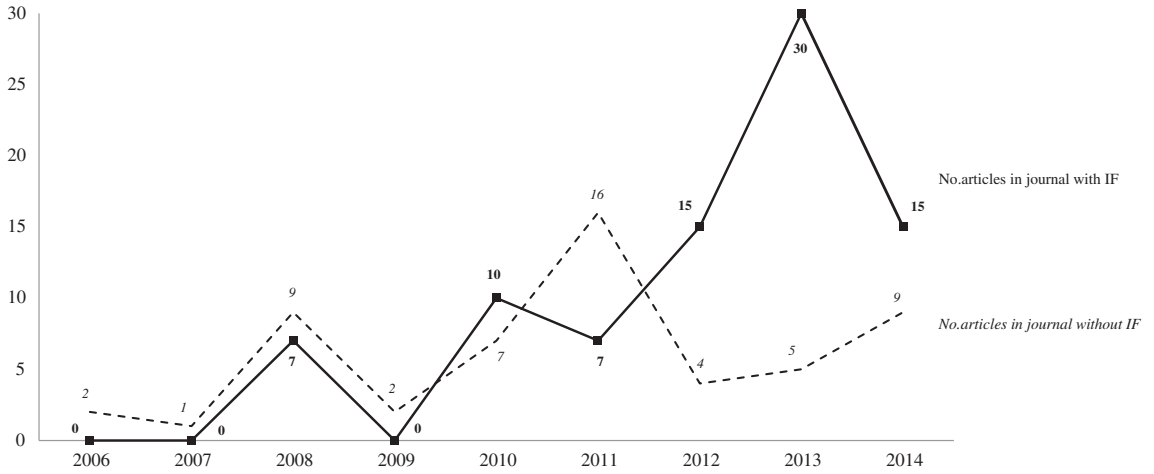
2.4. Preferred methods

As the TM literature is often described as lacking empirical research and evidence (e.g., Thunnissen et al., 2013a), we set out to examine paper type and method of choice (see Table 3). We coded all articles into four possible theoretical categories (i.e., literature review, concept development paper, position paper—in which authors assume a clear position on a selected issue—, or proposition

Table 1
Most cited journals—ranked by cumulative impact—with citation count.

Journal	Subject categories	No. TM articles	Cumulative IF	Citations (ISI WoS)	Citations (Scopus)	Citations (Scholar)
Journal of World Business	Business	21	49.04	352 (16.7)	295 (14.1)	889 (42.3)
International Journal of Human Resource Management	Management	15	12.38	52 (3.5)	54 (3.6)	105 (7)
Human Resource Management Review	Management	7	9.76	110 (15.7)	243 (34.7)	690 (98.6)
Human Resource Management Journal	Industrial relations & labor management	3	4.50	2 (0.7)	3 (1)	8 (2.7)
Management Decision	Business management	2	3.79	20 (10)	24 (12)	42 (21)
Harvard Business Review	Business management	2	3.31	26 (13)	57 (28.5)	244 (122)
Asia Pacific Journal of Human Resources	Industrial relations & labor management	4	2.70	5 (1.3)	8 (2)	9 (2.3)
Personnel Review	Industrial relations & labor Psychology, applied management	4	2.47	19 (4.7)	20 (5)	40 (10)

Notes. Subject categories are from the ISI WoS database; journal impact factor (IF) data were retrieved through the ISI WoS Journal Citation Reports function, taking into account the year in which the relevant articles were published; cumulative IF was calculated by adding the IFs of all TM articles published in the journal of interest up until 2014; the citation data refers to the total amount of citations received by a journal in reference to its articles on TM; between brackets, the average number of citations per article published is indicated.



Note. Only articles for coding are included in the frequency counts; for 2014, the graph shows the number of articles published up until May.

Fig. 2. Publication volume (up until 2014), broken down into articles published in journals with and without an impact factor (IF). *Note.* Only articles for coding are included in the frequency counts; for 2014, the graph shows the number of articles published up until May.

paper—in which authors explicitly develop testable research propositions) and three empirical categories (i.e., qualitative, quantitative, or mixed-method).

As can be seen in Table 3, claims as to the 'unempirical' nature of the TM phenomenon seem exaggerated, as 61% of articles (i.e., 85 articles) were coded as empirical. However, the vast majority of these articles were published from 2011 onwards, possibly as a reaction to this gap described in earlier work. Qualitative research was most prevalent (i.e., 46 articles; 33.1%)—as can be expected in an emerging field (von Krogh et al., 2012)—and relied mostly on semi-structured interviews and analysis of secondary data from single cases or within the context of a comparative case study. Less frequently used qualitative methods were focus groups (e.g., Huang & Tansley, 2012) and participant observation (e.g., Boussebaa & Morgan, 2008). Quantitative research was less frequently reported (i.e., 28 articles; 20.1%). In fact, quantitative research was not found at all prior to 2010, although the number of quantitative studies has accumulated since then and can be expected to increase further in the future, as the use of advanced statistical methods within a field tends to increase as it grows (von Krogh et al., 2012). Logistic regression was a prevalent technique (e.g., Dries, Vantilborgh, & Pepermans, 2012), as were cluster analysis (e.g., Vivas-López, Peris-Ortiz, & Rueda-Armengot, 2011) and structural equation modeling (e.g., Asag-Gau & Dierendonck, 2011). Among the empirical articles, mixed-method studies have been the least frequent (i.e., 11 articles; 7.9%). Sequential mixed-method procedures (that start with exploratory interviews and follow-up with a survey) are most commonly found (e.g., Bhattacharya et al., 2008). In three cases, survey data was combined with focus groups (e.g., Skuza, Scullion, & McDonnell, 2013), while in two papers semi-structured interviews were combined with social network analysis (e.g., Whelan, Collings, & Donnellan, 2010).

Theoretical papers account for 38.8% of the TM literature (i.e., 54 articles). Position papers (i.e., 19 articles; 13.6%) and literature reviews (i.e., 18 articles; 12.9%) were most commonly found. Position papers, indeed, are commonly found in emerging fields as authors attempt to make sense of a phenomenon by assuming a specific position on a topic of interest (e.g., whether an elite approach to TM is ethical; Swailes, 2013).

2.5. Country representation

The TM field is also often accused of being US-centric (e.g., Collings et al., 2011; McDonnell et al., 2012). In our bibliometric analyses, we found however that TM research has been published from 35 different countries. Looking at country representation based on the (then) affiliation of all authors listed on a TM publication, the US lead the rankings (i.e., 65 articles; 19%), closely followed by the UK (i.e., 62 articles; 18%). Ireland and the Netherlands occupy the third position with 28 articles (i.e., 8%), followed by Australia with 26 articles (i.e., 7%). If we consider the location of the lead author alone, the UK ranks first, followed by the US, Australia, the Netherlands, Belgium, and Ireland. Although the Anglo-Saxon countries, indeed, emerged as dominant from our data, it seems important to note that 5 out of the 10 most 'productive' countries in terms of TM research are European, non-English speaking countries: the Netherlands, Belgium, Germany, Spain and Finland.

In addition to authorship, we also coded in which countries data were collected. India was most prevalent (i.e., 12% of all empirical articles), followed by the UK and the US (i.e., both 7% of all empirical articles), China and Belgium (i.e., both 6% of all empirical articles), and Australia and Spain (i.e., both 5% of all empirical articles). Notably, more than 50% of the data collected came from Europe (i.e., the UK, Belgium, Spain, Ireland, the Netherlands, Switzerland, Sweden, Poland, Italy, France, and Germany). Some studies used data from multiple countries in Europe (7%), multiple countries across multiple continents (8%) or multiple countries in Asia (5%). Empirical

Table 2
Most cited articles and authors.

According to **ISI Web of Science (WoS)**:

Most cited articles	No. citations
Collings & Mellahi (2009)	84
Tarique & Schuler (2010)	72
Bhattacharya et al. (2008)	55
Mellahi & Collings (2010)	49

Most cited authors	No. TM articles	No. citations	No. citations/article	Rank
D.G. Collings	6	178	29.7	3
K. Mellahi	2	141	70.5	1
R.S. Schuler	2	128	64	2
H. Scullion	9	91	10.1	4

According to **Scopus**:

Most cited articles	No. citations
Collings & Mellahi (2009)	102
Lewis & Heckman (2006)	100
Farndale et al. (2010)	63
Cappelli (2008)	57

Most cited authors	No. TM articles	No. citations	No. citations/article	Rank
D.G. Collings	6	202	33.7	3
K. Mellahi	2	155	77.5	2
H. Scullion	9	115	12.8	4
R.E. Lewis	1	100	100	1
R.J. Heckman	1	100	100	1

According to **Google Scholar**:

Most cited articles	No. citations
Lewis & Heckman (2006)	371
Bhattacharya et al. (2008)	315
Collings & Mellahi (2009)	260
Cappelli (2008)	241

Most cited authors	No. TM articles	No. citations	No. citations/article	Rank
D.G. Collings	6	429	71.5	4
R.E. Lewis	1	371	371	1
R.J. Heckman	1	371	371	1
K. Mellahi	2	356	178	2
R.S. Schuler	2	334	167	3

Note. The last update of the citation data took place in July of 2014.

data from Asia mainly came from India and China, although there were also studies from Lebanon, Iran, Jordan, Saudi Arabia, and Thailand. Africa was only represented by South Africa (3%). Interestingly, articles from different regions identified strikingly different TM issues as crucial in their problem settings and research questions, which we discuss later on in the International human resource management (IHRM) section.

Table 3
Paper type and method of choice by year of publication.

Paper type	Method	2006	2007	2008	2009	2010	2011	2012	2013	2014	Total	Percentage
Theoretical	Position paper	–	–	6	–	1	2	–	6	4	19	13.7%
	Literature review	1	–	1	–	4	2	5	5	–	18	12.9%
	Proposition paper	1	–	–	–	1	1	–	2	5	10	7.2%
	Concept development	–	–	2	1	2	1	–	1	–	7	5%
	Total	2	0	9	1	8	6	5	14	9	54	38.8%
Empirical	Qualitative	–	–	6	1	6	6	7	13	7	46	33.1%
	Quantitative	–	–	–	–	2	7	6	6	7	28	20.1%
	Mixed	–	1	1	–	1	4	1	2	1	11	7.9%
	Total	0	1	7	1	9	17	14	21	15	85	61.2%
Total		2	1	16	2	17	23	19	35	24	139	100%

3. Content analysis

Based on earlier reviews of the TM literature (Collings & Mellahi, 2009; Dries, 2013a; Lewis & Heckman, 2006; Nijs, Gallardo-Gallardo, Dries, & Sels, 2014; Thunnissen et al., 2013a), we composed a list of potential theoretical frameworks that we used to code each of the 139 articles in our database—i.e., resource-based view/human capital, international human resource management, employee assessment, institutionalism, knowledge management, strength-based approach, career management, specific HR practices (i.e., recruitment, selection, development, succession planning, retention management, or reward management), HR practices non-specified, cannot say/not provided, and 'other' (followed by an open text field). Our coding template contained clear definitions for each framework so as to ensure inter-rater reliability. In some cases, codes were revisited as a result of the iterative coding process (described earlier)—articles for which we could not reach agreement were classified as having an 'unclear theoretical framework', which occurred for 4.3% of the 139 articles (i.e., 6 articles). For each article, we coded the 'primary' and the 'secondary' framework, as the pilot test had revealed that most articles contained multiple theoretical frameworks at the same time. Articles about global talent management, for instance, often combined concepts from the international human resource management, the resource-based view, and the institutionalism literature (e.g., Tarique & Schuler, 2010).

Below, we discuss the four dominant frameworks that emerged from our content analysis (i.e., resource-based view, international human resource management, employee assessment, and institutionalism)—together accounting for 70% of all coded articles—as well as four 'alternative' theoretical frameworks that were less prevalent, but nonetheless offer distinctive points of view within the TM literature that are worth examining (i.e., knowledge management, career management, strength-based approach, and social exchange theory). It seems important to note that a significant proportion of the articles we coded (12 articles; 8.6%) landed in the 'HR practices non-specified' category, which basically means that they used TM as synonymous to HRM in all its facets, and that we were unable to deduce from these articles what the authors saw as distinctive features of TM above and beyond HRM more generally. As we are interested first and foremost in distilling helpful theoretical frameworks for future TM research, in what follows we will not go into further detail on articles equating TM to HRM.

In our discussion of the theoretical frameworks found in the TM literature we address prevalence (i.e., how many articles had these as their primary or secondary framework?), often-cited references (i.e., what are the most 'typical' sources used within each framework?), and prototypical research questions and studies that we feel best represent each framework. The dominant frameworks discussed below are ordered from more to less prevalent.

3.1. Dominant theoretical frameworks

3.1.1. Resource based-view (RBV)

By far, the resource-based view is the dominant theoretical framework applied in the TM literature, with 30.2% of coded articles (42 articles) sorting under the RBV as a primary (23 articles; 16.5%) or secondary (19 articles; 13.7%) framework. Rather than referring to talent as 'people' or 'employees', articles written within an RBV framework tend to adopt the distinct vantage point of equating talent to 'human capital' that is both highly valuable and unique (Lepak & Snell, 1999). High-value human capital refers to assets that are pivotal to the organization's core business whereas low-value human capital generally refers to so-called 'peripheral' assets; uniqueness refers to the extent to which the organization's human capital would be difficult to replace (high uniqueness) as opposed to being readily available in the labor market and easily copied by competitors (low uniqueness) (De Vos & Dries, 2013). In addition, Boudreau and Ramstad (2005) have introduced the notion of 'pivotal positions', stressing that talent management is not only about having the 'right' people, but also requires placing these people in those positions that are of the highest strategic importance to the organization.

Very much in line with the above, Collings and Mellahi (2009) developed the following definition of TM which was cited, either verbatim or more indirectly, by 34% of the articles in our database (i.e., 47 articles):

> [TM refers to] activities and processes that involve the systematic identification of key positions which differentially contribute to the organization's sustainable competitive advantage, the development of a talent pool of high potential and high performing incumbents to fill these roles, and the development of a differentiated human resource architecture to facilitate filling these positions with competent incumbents and to ensure their continued commitment to the organization. (p. 305)

The notion of workforce differentiation—i.e., the practice of making disproportionately higher investments in employees for which higher return on investment is expected (Huselid & Becker, 2011)—is central to this definition and manifests itself in a focus, both in TM research and practice, on 'high potential' and 'high performer' employees, who are typically believed to make up 5 to 20% of an organization's population (Dries, 2013a). In our analyses, we see that no less than 60% of the articles coded (i.e., 84 articles) connect talent to high potential or high performance—we infer from this finding that many of the articles that did not adopt an RBV framework nonetheless share some common assumptions with this framework.

The central tenet of the resource-based view on TM is that people can be a source of sustainable competitive advantage; the latter operationalized first and foremost as organizational performance. Our analyses revealed that 14% (57 articles) in our database identified organizational performance as the number-one outcome for TM, although only a handful of studies empirically examined the relationship between TM and performance. Bethke-Langenegger, Mahler, and Staffelbach (2011), for instance, conducted a study in 138 Swiss companies concluding that different TM strategies have differential effects on financial outcomes (e.g., company profit, market value), organizational outcomes (e.g., productivity, customer satisfaction), and human resource (HR) outcomes (e.g., job satisfaction, commitment). Their main finding was that a TM strategy that focused on development and retention had the largest positive

effect on the HR outcomes, whereas a TM strategy that focused primarily on succession planning had the weakest impact both on organizational and HR outcomes.

The TM-performance link—as is the case in research on the HRM-performance link more generally—assumes that employee behavior is a crucial mediator, and therefore, that any successful TM strategy should aim to stimulate 'desired role behaviors' in employees (Collings & Mellahi, 2009). Höglund (2012) for example examined, in a sample of 126 managers from a wide range of organizations, the effects of skill-enhancing TM initiatives on employees' felt obligation to develop the skills desired by the organization, and the extent to which this in turn influenced whether their organization's human capital was 'the best in the industry'. His results supported a full mediation model, meaning that employees' perceptions of and reactions to their organizations' TM policies formed a necessary link between these policies and organizational performance operationalized as having an excellent human capital base.

Yet other studies move away from the 'best practice' perspective—which assumes that there is a universal configuration of TM practices that is likely to improve organizational performance (Collings & Mellahi, 2009)—towards a 'best fit' perspective that recognizes the impact of the specific internal and external contexts of organizations on TM practices and outcomes (Garrow & Hirsh, 2008). An example is De Vos and Dries (2013) study of 306 Belgian companies, which found that the higher the proportion of high-value, high-uniqueness employees an organization has, the more importance it will attach to reducing turnover as a key objective in its TM strategy. Another example of a 'best fit' approach to TM research is Groysberg, Sant, and Abrahams (2008) study of 32 NFL teams, in which they demonstrated that hiring 'star employees' from outside can not only severely undermine the morale and productivity of veteran employees, but also that high performance does not always transfer well from one organization to the next. With their study they contribute to the 'make or buy' debate in the TM literature, which according to Cappelli (2008) should, in essence, be approached as a supply chain problem.

3.1.2. International human resource management (IHRM)

The second most prevalent theoretical framework in the TM literature is IHRM, with 18.7% of coded articles (26 articles), of which 8.6% (12 articles) with IHRM as a primary framework, and 10.1% (14 articles) with IHRM as a secondary framework. According to Tarique and Schuler (2010), IHRM is about understanding, researching, applying, and revising all HRM activities in their internal and external contexts as they impact the processes of managing human resources in organizations throughout the global environment to enhance the experience of multiple stakeholders. In short, the goal of IHRM is to help multinational companies (MNCs) be successful globally. Articles adopting an IHRM framework typically refer to 'global talent management' (GTM), rather than TM per se, as their central construct. A well-cited definition of GTM is that of Scullion et al. (2010):

> Global talent management includes all organizational activities for the purpose of attracting, selecting, developing, and retaining the best employees in the most strategic roles (those roles necessary to achieve organizational strategic priorities) on a global scale. Global talent management takes into account the differences in both organizations' global strategic priorities as well as the differences across national contexts for how talent should be managed in the countries where they operate. (p. 106)

GTM studies tend to study both typical TM practices, applied at an international level, and TM practices that are specific to the context of MNCs alone, such as the management of high-potential expatriates (e.g., Farndale, Pai, Sparrow, & Scullion, 2014). The underlying assumption is that TM is more important—and more challenging—for MNCs than it is for 'local' companies, due to higher levels of scale and complexity (McDonnell, Lamare, Gunnigle, & Lavelle, 2010). Sparrow, Farndale, and Scullion's (2013) case study of 26 HR professionals across two case firms examines the different possible corporate HR roles (CHR) HR professionals can assume within the context of GTM: 'champions of process' who monitor the global implementation of their organization's GTM strategy and tools; 'guardians of culture' who guard the consistent application of GTM across the organization, creating a strong TM climate; 'managers of internal receptivity' who encourage a focus on active in-and outflow of talent from business unit to business unit; and 'network intelligence leaders' with expert knowledge of the internal and external labor market and access to global networks allowing them to mobilize their organization's talent internationally. Preece, Iles, and Jones (2013) describe a case in which a Japanese vehicle manufacturer relocated part of its TM activities to its newly established regional headquarters (RHQ) in an unnamed Asian city outside of Japan to function as a bridge between the parent HQ and their subsidiaries in South East Asia and Australasia so as to accommodate local contexts and challenges. The authors argue that the challenge for MNCs is to capitalize both on the differences and similarities in their multiple host locations in developing their GTM policies and practices, and that decentralization of TM can be a useful tool to do so. And Mäkelä, Björkman, and Ehrnrooth's (2010) develop a two-stage process model of how talent identification occurs in MNCs—applicable, for instance, to situations where talent pool candidates and organizational decision makers are from different cultural and institutional backgrounds—based on an in-depth case study of a Finnish MNC.

Having IHRM as a (primary or secondary) theoretical framework typically coincided with being coded as having an RBV and/or an institutionalist framework. McDonnell et al. (2010), for example, draw on the HR architecture model developed by Lepak and Snell (1999)—a seminal reference within the RBV literature—in exploring, across 260 MNCs, the extent to which they engage in GTM and whether the (non-)use of specific GTM practices (i.e., global succession planning, global management development, and global talent development) can be explained by MNC characteristics such as country of origin, sector, organization size, and the presence or absence of a CHR body. Tarique and Schuler (2010) discuss how both exogenous and endogenous drivers—terms they borrow from institutional theory—such as market position, headquarter international orientation, organizational structure, and workforce capability, impact on GTM effectiveness in terms of attracting, developing, and retaining talent in MNCs.

As we discussed earlier in the Country representation section within the TM literature, although much of the research comes from Anglo-Saxon countries (i.e., the US, the UK, and Australia), especially in recent years we are seeing a strong increase of TM research coming from Europe, India, and China. Interestingly, the problem settings and research questions of TM articles originating from different geographical regions depend strongly on locally faced TM challenges, encouraging a comparative perspective on GTM (Farndale et al., 2010). While TM research from India tends to focus on the attraction and retention of talented information technology (IT) specialists (e.g., Kong, Chadee, & Raman, 2013)—a sector in which India holds 50% of the global market—, research on TM in China focuses on the country's structural shortage of skilled leadership talent, TM issues created by government regulations, and the adaptation of Western HRM practices to Chinese culture (e.g., Iles, Chuai, & Preece, 2010).

3.1.3. Employee assessment

The third most prevalent framework is employee assessment, with 11.5% of coded articles (16 articles) sorting under 'employee assessment' as a primary (4 articles; 2.8%) or secondary (12 articles; 8.6%) framework. In TM articles with an employee assessment framework, the focus tends to lie on identifying leadership talent, while much less research is found mentioning other 'types' of talent employees may possess (Church & Rotolo, 2013). The demonstration of predictive validity requires addressing the following question—do those identified as talented early on exhibit excellent performance at a later point in time, in a more advanced position (Nijs et al., 2014)?

As our data shows, employee assessment is mostly found as a secondary theoretical framework; we found that it most often coincided with an RBV approach (e.g., Dries, Vantilborgh, & Pepermans, 2012b), and was also often found in studies that dealt primarily with GTM issues (e.g., Mäkelä et al., 2010; McDonnell, Hickey, & Gunnigle, 2011). Dries et al. (2012b), in a study examining to which extent assessments of learning agility were able to predict being identified as a high potential (or not) above and beyond a baseline prediction of job performance, argue that:

> like other organizational assets, employee skills can be classified as core or peripheral assets … on the basis of the returns the performance of different employee groups generate on measures of strategic interest. High potentials, then, are those core employees whose skills are high in value and in uniqueness from the point of view of their particular employers. (p. 342)

McDonnell et al. (2011), in their study of the Irish subsidiaries of 414 MNCs, found that these companies typically distinguished between three types of 'talent pools'—i.e., technical talent, leadership talent, and executive (top-level leadership) talent—and discuss the specific challenges associated with talent identification faced by MNCs (e.g., a positive bias towards parent country nationals).

Studies approaching TM from an employee assessment angle typically aim to identify talent in a valid and reliable manner, advocating the use of standardized tools and methods for evaluating talent (Nijs et al., 2014). The literature on talent identification therefore tends to borrow concepts from industrial–organizational (I–O) psychology, most notably from the literature on personnel selection and assessment centers. Church and Rotolo (2013), for instance, posit that the identification of talent often still relies on rather 'unscientific' methods, and that any solid TM strategy should involve the establishment of an MTMM (i.e., multitrait-multimethod matrix) talent assessment approach. Specifically, they advocate the combined use of 360-degree feedback, personality measures, and face-to-face interviews as a best practice.

A final topic within the employee assessment framework is employees' reactions to talent identification. Björkman, Ehrnrooth, Mäkelä, Smale, and Sumelius (2013), for example, found that employees who believed they were identified as talented by their organizations were more committed to improve their performance, to work on developing competencies valued by their employer, to actively support their department's strategic priorities, and less likely to have high turnover intentions than were employees who believed they were not identified as talented. The authors conclude that talent identification can have a motivating effect on pivotal employees, although they do assert that turnover intentions in particular will be strongly influenced by the extent to which organizations meet their high potentials' career expectations.

3.1.4. Institutionalism

The fourth most prevalent framework found in the TM literature is institutionalism—14 articles (10.1%) were coded as primarily (9 articles; 6.5%) or secondarily (5 articles: 3.6%) framed within the institutionalist tradition and literature. Institutionalism can be defined as the study of how cognitive and normative principles impact on institutions such as cultures and organizations, and how those institutions in turn shape the behaviors of actors at lower levels—within the TM literature, mostly individual employees (Tarique & Schuler, 2010). More specifically, within an institutionalist framework researchers typically set out to examine how schemas, rules, norms, and routines become established as authoritative guidelines for organizational behavior (Thunnissen, Boselie, & Fruytier, 2013b). In the TM literature, institutional theory is applied to demonstrate how institutional factors such as national and organizational culture, and existing power relations in organizations and labor markets, drive TM strategies, policies, and practices (Sidani & Al Ariss, 2014).

The TM articles in our database that were coded as having an institutionalist framework typically adopted a more critical approach towards the notion of talent management than did other articles. Van den Brink, Fruytier, and Thunnissen (2013), for instance, state that TM is not simply a technical activity of selecting and recruiting the best, most gifted or most special employees, but also a political negotiation activity between multiple stakeholders with different interest and agendas, and therefore often conflicting views. The authors argue for a more critical and reflexive approach to TM research, that would take into account issues of power, control, and context. Similarly, a case study by Huang and Tansley (2012) conducted in a Northern American MNC discusses the notion of 'rhetorical obfuscation' in TM—i.e., "the intentional use of persuasive language to selectively project and communicate organizational agenda as a

means of directing and reinforcing relevant stakeholders' commitments and conforming behaviors" (p. 3673). In particular, they found that their case organization used attractive-sounding but rather hollow TM rhetoric especially when trying to cover up inconsistencies in their TM practices and when the legitimacy of their TM program was questioned. Lacey and Groves (2014), in an interesting paper linking TM to corporate social responsibility (CSR), propose that the exclusive nature of TM in which 'the best' is separated from 'the rest' runs contrary to the ideals of CSR, and examine how organizations can simultaneously assume responsibility in managing their workforce but also apply the core principles of TM.

The institutionalist framework often coincided with the IHRM framework, as culture is considered an important institutional factor in GTM (e.g., Hartmann, Feisel, & Schober, 2010). Sidani and Al Ariss (2014), for example, in their interview study of 48 TM stakeholders—i.e., policy makers, government officials, researchers, scholars, and HR professionals—working in the Arab Gulf region, develop a conceptual framework in which they link institutional (i.e., coercive, mimetic, and normative) pressures to TM policies and practices, and to TM outcomes such as employee engagement and turnover. The authors describe how these institutional pressures push organizations in the direction of 'isomorphism', meaning that over time they become increasingly similar in terms of TM strategies and practices, thereby possibly losing their unique value proposition as well as running the risk of being unresponsive to organization- or culture-specific factors. Another prototypical example is Boussebaa and Morgan (2008) comparative case analysis of a British MNC's failed attempt at 'translating' its TM practices for use in their French subsidiary. While the case company's egalitarian and merit-based TM policies were well received by its British management, the idea of talent identification being a competitive process taking place after organizational entry proved highly unsuitable for the French context, in which 'grand écoles'—elite institutes of higher education of which all graduates are considered 'high potentials'—play a very large role in identifying and selecting talent. Career progress, in the French TM context, is largely a matter of seniority and the time and energy devoted to the political task of activating networks established during one's student years. Boussebaa and Morgan (2008) therefore conclude that "by ignoring differences in institutional factors, the implementation of a transnational talent management system failed completely" (p. 25).

3.2. Alternative theoretical frameworks

As mentioned earlier, we also identified four alternative theoretical frameworks that were less prevalent, but nonetheless offer distinctive points of view within the TM literature that all four coders agreed were worth examining. They are derived both from less frequently coded frameworks that were part of our original coding template (see earlier)—i.e., knowledge management, career management, and the strength-based approach—as well as from a framework repeatedly recurring in the open text box following the 'other' option—i.e., social exchange theory. While the 'less dominant' frameworks together account for 16.5% (i.e., 23) of the coded articles, the 'other' option was coded as a primary framework for 24.5% of the articles (i.e., 34 articles) in our database. The latter finding indicates the diversity of the theoretical frameworks found in the TM literature—typical of growing phenomena (von Krogh et al., 2012)—as it implies that almost 1 in 4 of the articles we analyzed could not be classified under any of the nine frameworks we identified as potentially relevant based on previous reviews of the TM literature (i.e., Collings & Mellahi, 2009; Dries, 2013a; Lewis & Heckman, 2006; Nijs et al., 2014; Thunnissen et al., 2013a). It seems important, therefore, to at least briefly address the most distinctive 'alternative' frameworks identified in our content analysis of the TM literature. The alternative frameworks discussed below are ordered from more to less prevalent.

3.2.1. Knowledge management (KM)

10 of the 139 articles in our database (7.2%) were coded as having a knowledge management framework, all of which had KM as a primary theoretical framework. The KM literature regards the creation and application of knowledge that comes about as a result of collective learning as an essential function of the firm (Vivas-López et al., 2011). Consequently, TM articles with a KM framework are typically interested in identifying and assessing organizational-level interventions that can facilitate knowledge-intensive organizations in fully exploiting their human resources in order to maximize innovative capabilities. Whelan et al. (2010), for instance, in their mixed-method study of 48 engineers combining social network analysis with semi-structured interviews, explore the processes and channels through which valuable knowledge from outside the firm reaches those employees who can exploit that knowledge for innovation purposes. The authors define TM as do Collings and Mellahi (2009)—see earlier in our discussion of the RBV framework—, adding that in knowledge-intensive settings pivotal positions are those that facilitate internal and external knowledge flows ensuring that they reach the right people. They build on Allen's (1977) technological gatekeeper theory to demonstrate how 'communication stars' can be identified by their organizations.

3.2.2. Career management (CM)

5.8% of coded articles (8 articles) were sorted under CM as a primary (5 articles; 3.6%) or secondary (3 articles; 2.2%) framework. Career management refers to all interventions to shape careers in organizations, not only by the individuals concerned, but also formally and informally by their managers—a distinction is typically made between organizational career management (OCM) and career self-management (CSM) (De Vos & Dries, 2013). Dries, Van Acker, and Verbruggen (2012a), in their case–control study of a sample of 941 high potentials, key experts, and 'average' employees, discuss how the TM and the CM literature make very different assumptions as to the desirability of working for a single organization for an extended period of time. Although the CM literature enthusiastically spells out the benefits of having a 'boundaryless' career, their results indicate that stable organizational careers were in fact desired by all of their respondents but only attainable for those identified as talents. They conclude that long-term organizational careers are increasingly becoming rare commodities reserved for the 'happy few'. Other TM studies positioned within a CM

framework (e.g., Claussen, Grohsjean, Luger, & Probst, 2014) typically aim to uncover the factors predicting how and when people are promoted to senior management positions as part of their organization's TM strategy.

3.2.3. Social exchange theory

Social exchange theory was as frequently applied in the TM literature as a theoretical framework as was career management, with 5.6% of coded articles (8 articles) sorting under social exchange theory as a primary (2 articles; 1.4%) or secondary (6 articles; 4.2%) framework. The focus of social exchange theory lies on the reciprocal relationships, interactions, and mutual 'felt obligations' between employees and their employers (Festing & Schäfer, 2014). Typical variables addressed in TM research with a social exchange framework are psychological contract breach (e.g., Dries & De Gieter, 2014) and perceived organizational justice (e.g., Gelens, Hofmans, Dries, & Pepermans, 2014). Dries and De Gieter (2014), in their qualitative study of 20 high-potential employees and 11 HR directors, found that the typically ambiguous messages employees receive about their organizations' TM policies create 'information asymmetries' between people identified as high potentials and their organizations, thereby increasing the risk of mismatched expectations between both parties and ultimately, psychological contract breach. Gelens et al. (2014) conducted a survey study of 203 employees of which 128 were identified as high potentials, and found that being identified as talented only leads to beneficial attitudes such as higher job satisfaction and work effort when talented employees feel their assigned 'status' is the result of fair procedures (i.e., perceived procedural justice), and reflects an accurate balance between their efforts and the inducements allocated to them by their organizations (i.e., perceived distributive justice).

3.2.4. Strength-based approach

Finally, the strength-based approach served as a theoretical framework for 5 articles (3.5%), of which 2.1% (3 articles) with the strength-based approach as a primary framework, and 1.4% (2 articles) as a secondary framework. What is particularly interesting about the strength-based approach is that it is the only framework found within the TM literature—with the possible exception of some of the more 'critical' articles identified earlier in the Institutionalism section—that takes issue with the notion of workforce differentiation being central to TM. Instead, the strength-based approach aims to redirect the focus of TM scholars and practitioners towards the fulfillment of the natural potential of all employees, and advocates that everyone is entitled to the organizational opportunities, resources, and encouragement required to apply the maximum of their capacities (Dries, 2013a). The main outcomes of interest are positive psychological and physical health, which are believed to result in increased employee productivity and ultimately, organizational performance (Nijs et al., 2014). Kumar and Raghavendran (2013), based on a comparative case study, develop a framework for strength-based TM in which employees' preferences in terms of the type of work they would like to do, their core competencies, and activities that are value-adding to the organization—manageable through organizational and job (re)design—are operationalized as central drivers of employee engagement and motivation. Similar ideas are found in Downs and Swailes (2013) article advocating a 'capability' approach to TM.

4. Discussion

4.1. Evaluating the state of the field

Following von Krogh et al. (2012), we assess the maturity of the TM field according to the three developmental stages of a phenomenon (i.e. embryonic, growth, and mature). Specifically, we examine the authors' conceptualization of each stage, and link it to the findings of our bibliometric and content analysis. Based on our observations, we then formulate a number of recommendations for further research that we believe represent necessary steps to make the transition to a more mature state.

4.1.1. Embryonic stage

In the embryonic stage of the evolution of a phenomenon, a novel phenomenon emerges but is impossible to single out against a background of other existing phenomena. The first mention of TM popped up in the literature at the end of the nineties/early 2000s (i.e., Chambers et al., 1998; Michaels et al., 2001), and was reproduced mainly in the practitioner literature—thus remaining under the radar of our systematic review procedure that focused on the peer-reviewed academic literature—up until 2006. This finding is reflected in von Krogh et al.'s (2012) assertion that "[emerging] phenomena rank highest in terms of practitioner interest" (p. 279). Since 2006 we have seen a gradual increase of academic work on TM, although publications remain quite scattered across journals, fields, and theoretical frameworks. Very much in line with von Krogh et al.'s (2012) conceptualization of the embryonic stage of the evolution of a phenomenon—i.e., a small group of scholars develops an interest in understanding a new phenomenon while establishing a common language and terminology through which to communicate (p. 282)—we see that early work on TM focused mostly on establishing definitions, and distinguishing it from other phenomena such as strategic human resource management (SHRM) more generally (e.g., Lewis & Heckman, 2006). von Krogh et al. (2012) identify the development of a common language as a crucial feature of the embryonic stage, since it provides the members of an emerging scientific (micro-)community with a distinctive identity, which facilitates the consolidation of their shared interest in the phenomenon.

Generally speaking, our bibliometric and content analyses revealed that there is more consensus in the TM literature about definitions and frameworks than assumed so far (e.g., Gallardo-Gallardo, Dries, & González-Cruz, 2013; Thunnissen et al., 2013a). At present—i.e., in 2014—most articles seem to agree that the distinguishing feature of TM is its focus on pivotal positions and employees (i.e., high potentials and high performers), a phenomenon also referred to as 'workforce differentiation' (Huselid & Becker, 2011), with

34% of articles directly or indirectly referring to Collings and Mellahi's (2009) definition of TM, and 60% of articles subscribing to the idea that TM in essence deals with high-potential and/or high-performing employees.

4.1.2. Growth stage

In the growth stage of a phenomenon, scientific interest in the phenomenon grows to the extent that it becomes visible to a larger academic community (von Krogh et al., 2012). Based on our data, we posit that currently the TM field is in the growth stage, as evidenced by the marked increase of publications over the course of the last five years, with 'peaks' attributable to six recent special issues on the topic (especially noticeable from 2013 onward). According to von Krogh et al. (2012), in the growth stage it is common for journals to publish special issues reviewing the relevant literature on a phenomenon with the purpose of stimulating further research. In addition, and also in accordance with the features of the growth stage as described by von Krogh et al. (2012), recurring author and editor teams across these special issues signal the formation of a 'core' scientific TM community, acting as a reference group to new entrants in the field. The increased convergence of publications on TM into three main journals (i.e., Journal of World Business, International Journal of Human Resource Management, and Human Resource Management Review), and the establishment of an annual conference on TM sponsored by the European Institute for Advanced Studies in Management (EIASM) are additional indicators for the gradual formation of a scientific community devoted to the study of TM. Finally, the growth stage is characterized by an increasing variety of research methods, attempting to capture different facets of the phenomenon, in part motivated by discrepancies between how the phenomenon is observed in practice versus how it is described and understood in the academic literature (von Krogh et al., 2012).

Our analysis of preferred methods and types of papers in the TM literature by publication year (see Table 3) shows that empirical research on TM did not 'take off' until 2011 (up until which point mostly conceptual and exploratory work had appeared), after which 'some' sophistication and diversification in terms of research methods occurred—not enough to qualify TM as a mature field, however (see below). We therefore propose that TM can be classified as an embryonic field from 1998 until 2011, and a growing field from 2011 up until today.

4.1.3. Mature stage

Based on the above, we posit that TM currently is facing the challenge of evolving into a more mature field of study. In the mature stage of the evolution of a phenomenon, it reaches a level of solidity where regularities encountered in the previous stages become predictable. The phenomenon evolves into a legitimate field of study in its own right, with scientists who study it acquiring tenured positions in top-tier universities, regularly succeeding in obtaining prestigious research grants, potentially establishing their own associations, journals, and PhD programs (cf. von Krogh et al., 2012). All available evidence implies that the TM field does not yet live up to the standards required to qualify as a mature field of study.

First, although the definitions of talent and TM are increasingly agreed upon and cited in the literature, these key constructs are still more often than not treated as implicitly understood rather than operationalized and measured as variables. Second, many of the empirical articles on TM suffer from the limitation that their theoretical frameworks are not properly aligned with their methods and measures. Third, empirical work on TM is still often exploratory, with cross-sectional data collected in small samples without a deliberate sampling strategy (research quality guidelines derived from Champion, 1993). Fourth, although publications on TM are increasingly concentrated in a number of clearly identifiable journals, we are still far removed from launching a journal specifically devoted to TM. Hence, it is clear that the TM field is hardly on the verge of entering the stage of maturity at this point, as a much stronger theoretical basis is required—prescribing relevant variables, measures, and causal relationships—to allow for a shift towards theory-driven research.

The step from exploratory, phenomenon-driven research to hypothesis-based, theory-driven research (adhering to the strictest rules of reliability and validity) is almost always a necessary requirement for entry into the realm of 'A-level' publications, prior to which a field will have only limited credibility and leverage in the academic world. Hambrick (2007), for instance, in his plea for more phenomenon-driven research, jokes:

> After years of comparing notes with colleagues about the rejection letters we have received, it seems the most annoying passage—which I am sure editors have preprogrammed for handy one-click insertion—is this one: *The reviewers all agree that your paper addresses an important topic and is well argued; moreover, they find your empirical results convincing and interesting. At the same time, however, the reviewers believe the paper falls short in making a theoretical contribution. Therefore, I'm sorry … etc., etc., etc.* (p. 1346)

4.2. Recommendations for research and practice

Based on our bibliometric and content analysis, and our evaluation of the current state of the TM field, we formulate several recommendations for further research and theory development.

4.2.1. Theoretically sound research

The potential theoretical frameworks that can be applied to the study of TM are, as discussed in the present paper, quite diverse. What is crucial for advancing the field is not so much that scholars should agree on which theoretical frameworks to use, but rather that they make deliberate choices in terms of theoretical framing and apply these consistently within one and the same project. Many

of the papers we reviewed contained a mishmash of concepts, definitions, and theoretical assumptions taken from different literatures, resulting in an inconsistent 'story' and often also a severe mismatch between theory and data (i.e., between the claims made as to what questions the study would address versus the conclusions that can be drawn from the type of data collected). A typical rule of thumb for publishing in top-tier journals is the 'one idea, one paper' rule (e.g., Champion, 1993). Promise lies both in advancing our understanding of TM framed within the dominant theoretical frameworks identified in our analyses (i.e., resource-based view, international human resource management, employee assessment, and institutionalism), and in exploring further the potential value of studying TM from more 'alternative' angles (i.e., knowledge management, career management, strength-based approach, and social exchange theory). In this respect, it seems important to note that relevant references for TM research are not always found using 'talent management' as a search term—especially for the alternative approaches—and that search terms such as 'strengths' and 'star performers' can help researchers widen their theoretical playing field (e.g., Aguinis & O'Boyle, 2014; Wood, Linley, Maltby, Kashdan, & Hurling, 2011).

4.2.2. Methodologically sound research

In addition to applying theory more consistently, TM scholars need to invest more effort into developing methodologically and statistically rigorous research designs. Longitudinal research, intervention studies in real-life organizational settings, and multilevel studies offer most promise for advancement of the TM field, as these methods allow for an examination of causal relationships between individual (e.g., employee engagement), team-level (e.g., team effectiveness), and organizational outcomes (e.g., mean productivity), and the possible effect of organizational interventions (i.e., changes to the TM program) on these relationships, which would help provide evidence for taken-for-granted assumptions about TM that are pervasive in HR practice (Dries, 2013b). Our analyses showed that, to date, studies into the effects of TM on desired outcomes are quite limited, and mostly focused on self-reported attitudinal outcomes (e.g., Höglund, 2012). Multisource designs, in which data collected from multiple stakeholders is combined with secondary (archival) data, would help counter this limitation, and possibly allow researchers to further unravel the elusive TM-performance link (Fleetwood & Hesketh, 2008).

4.2.3. A contextualized approach to TM

Throughout our analysis we show that the interpretation, implementation, and effects of TM are strongly influenced by a wide variety of contextual factors, such as features of the specific cultural contexts in which an MNC operates (Sidani & Al Ariss, 2014). Therefore, a 'best fit' approach to TM is commonly advised (Garrow & Hirsh, 2008), in that TM practices should be designed to align with organizational characteristics such as strategic aims, organizational culture, HR practices, and organizational capacity, as well as with cultural characteristics (Dries, 2013b). In line with this, Thunnissen et al. (2013a,b) question whether the principles of TM—which originate largely from multinational, private, US-based organizations—are applicable to organizations operating in different contexts. For instance, organizations that promote egalitarianism, diversity, and teamwork might choose not to apply workforce differentiation because such an exclusive interpretation of TM clashes with their culture (Iles et al., 2010) and would not benefit them in the long run (Festing, Schäfer, & Scullion, 2013). Recent research into different talent philosophies (e.g., talent as exclusive and stable; talent as exclusive and developable; talent as inclusive and stable; and talent as inclusive and developable)—defined as "the fundamental assumptions and beliefs about the nature, value, and instrumentality of talent that are held by a firm's key decision-makers" (Meyers & van Woerkom, 2014, p. 192)—might serve as a basis for further research inspired by a 'best fit' framing of TM. Research endeavors focused on the development and testing of typologies that link organizational characteristics to talent philosophies are especially promising (Dries, 2013a). Such research is likely to demonstrate that different TM strategies can be equally viable, provided that they fit the organization well (Bethke-Langenegger et al., 2011). Organizational decision makers are therefore advised to adequately assess organizational and contextual characteristics prior to implementing TM practices. In addition, we posit that it will depend on contextual factors which kind of positions and people should be identified as 'pivotal' (Collings & Mellahi, 2009). The question of 'talent for what?', to date, has been very much neglected in the TM literature, which tends to equate talent to leadership potential (Gallardo-Gallardo et al., 2013). In keeping with Boudreau and Ramstad's (2005) work on workforce differentiation, we posit that very different categories of employees—not just those holding management positions—can in fact be pivotal influencers of organizational performance. Organizational decision makers are therefore advised to systematically evaluate which specific talents and positions are most central to the functioning of their specific organization, given the context in which it operates.

4.2.4. Acknowledging team dynamics in TM

The contextual embeddedness of TM is typically addressed at the macro- (i.e., institutional) or meso- (i.e., organizational) level, through comparative case studies or surveys administered to HR professionals. Contextual factors situated at the micro-level—tapping into the social and physical contexts surrounding talented employees—however, have remained relatively underexplored. In accordance with Collings and Mellahi (2013), we propose that more research is needed into why a given person can behave 'more talented' in one specific context than another (Groysberg et al., 2008). Teamwork represents a specific context that reflects how people typically work in organizations, and offers an interesting setting for TM studies dealing with more relational variables such as group climate and social perception—the OB/social psychology literature being the best source of reference (Nijs et al., 2014). Our analyses revealed, however, that only one of the coded articles in our database took team dynamics into consideration at all (i.e., Oltra & Vivas-López, 2013). Experimental research designs—completely absent in the present body of TM literature—manipulating specific (micro-)contextual factors might prove particularly valuable to tease out the factors that stimulate versus suppress people's application of their talents in a given work setting.

4.2.5. Ethics in TM

Swailes (2013) states that TM decisions are often subjected to various sources of bias that seem to have been largely ignored in the TM literature. His work implies that ethical considerations should be more central to TM than they have been to date, which requires both unbiased TM decisions and the opportunity for all stakeholders involved in the TM process (including the employees who are affected by it) to voice their opinions and concerns. The personnel selection and the social psychology literature might prove useful in this respect, as they acknowledge more than the HRM literature that TM decisions are subjective by nature and influenced by rater and ratee characteristics (Nijs et al., 2014). So far, little is known about how characteristics of raters and ratees (e.g., mindsets, personality) dynamically interact in shaping or potentially biasing assessments conducted within a specific TM context (Dominick & Gabriel, 2009). TM decisions are not only influenced or biased by those making the decisions, but also by the specific instruments used to make decisions. The psychometric qualities of different measurement methods (e.g., self- and other-ratings versus standardized tests) seem to differ widely depending on the context in which they are administered (Church & Rotolo, 2013). Informed by these insights we advise TM scholars and practitioners to study the psychometric qualities of different TM instruments and measures and this within the contextual boundaries in which they are applied, a practice largely absent in the current body of literature. Additionally, if one wants to establish an ethical approach to TM, supported by all stakeholders involved, more effort should be invested into examining the reactions of employees to specific TM policies and practices. Gelens, Dries, Hofmans, and Pepermans (2013) and Gelens et al. (2014), for instance, recently conducted two studies investigating attitudinal and behavioral reactions to (not) being identified as talented. We recommend that this line of research be further expanded in order to come to a better understanding of the (differential) effects of TM initiatives informed by different talent philosophies (i.e., inclusive versus exclusive). Only then can we more clearly unravel the outcomes of inclusive versus exclusive TM and how they, presumably through behavioral and attitudinal employee reactions, affect organizational health as a whole (Huang & Tansley, 2012).

5. Conclusion

The present review adopted a phenomenon-driven approach to reviewing the TM literature, applying methods derived from bibliometrics and content analysis with the purpose of evaluating the state of the field and deriving implications for further research and theory development that would be unbiased towards a-priori assumptions of what TM as a phenomenon means or should mean, or which frameworks or methods are more legitimate in the study of TM than others. Rather, we wanted to let the phenomenon 'speak for itself', by coding and quantifying relevant features of all peer-reviewed articles on TM published up until 2014. Although the field is quite young—the TM phenomenon being first mentioned in 1998—and is therefore expected to change drastically and rapidly in the next few years, we believe that this review comes at a good time, as the TM field currently faces the challenge of transitioning from a 'growing' to a 'mature' field of study. The ultimate goal of the present paper was to serve as a point of reference for future work on TM, informing scholars entering the field of 'where it is at', and providing guidance for the theoretical and methodological positioning of further research. Observations such as the marked increase of publications on TM in the last five years, the 'boom' in special issues on the topic, the gradual emergence of a scientific community, and the increasing variety in research methods—combined with a lack of established measures and causal theories, a lack of alignment between Introduction and Methodology sections in the existing literature, and the continued use of cross-sectional studies administered from convenience samples—indicate that TM as a field, indeed, can currently be classified as being in a 'growth' but not yet a 'mature' stage (von Krogh et al., 2012).

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[1] The full list of the 139 articles analyzed in this paper can be obtained from the first author upon request.

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