

## The Organizational Socialization Field Fragmentation: A Bibliometric review

**SAŠA BATISTIČ\***

Portsmouth Business School, University of Portsmouth  
Organizational studies and Human resource management  
Portland Street, Portsmouth, PO1 3DE, UK  
Tel: (+44) 2392844137  
email: sasa.batistic@port.ac.uk

**ROBERT KAŠE**

Faculty of Economics, University of Ljubljana  
Department of Management and Organisation  
Kardeljeva ploščad 17, Ljubljana, 1000,  
Slovenia  
Tel: (+386) 15892649  
e-mail: robert.kase@ef.uni-lj.si

\* Corresponding author

We are grateful to the Editor Wolfgang Glänzel and two anonymous reviewers for their helpful observations and suggestions. We offer special thanks to Nicky Dries and Alex Tymon for their valuable comments on previous versions of this manuscript.

# **The Organizational Socialization Field Fragmentation: A Bibliometric review**

## **Abstract**

Organizational socialization is gaining momentum in business research, and statistical data shows us the importance of this topic for practitioners as well. In this study, the vast organizational socialization literature published over the past three decades is analysed using bibliometric methods in order to explore the scope of the field, detect current research priorities, and identify the most prominent papers and authors. We identify thematically related clusters of research and show how the organizational socialization field has evolved through interconnected, yet distinct, subfields. Specifically, three distinct aspects have been emphasized at different time periods: (1) the organizational socialization tactics view in the 1980s; (2) newcomer proactivity, information seeking, and the uncertainty reduction process in the 1990s; and (3) a person-by-situation approach in the last decade, which is a mix of both. The implications for future research into organizational socialization research are presented and discussed.

**Key words:** organizational socialization; newcomers; co-citation analysis; uncertainty; proactivity; review.

## **Introduction**

Organizational socialization is the process by which individuals become part of an organization's set of activities (Anderson, Riddle, & Martin, 1999). Organizational scholars are particularly interested in understanding the socialization process as it brings valuable benefits to both parties involved – organizations and newcomers. Ineffective socialization is the primary reason why organizational newcomers quit their jobs (Fisher, 1986), which consequently disrupts work and results in lower productivity (Shaw, Gupta, & Delery, 2005). This impacts on organizations in terms of costs and investment in recruitment, selection and training (Kammeyer-Mueller & Wanberg, 2003). Apart from avoidance of financial loss, organizations need newcomers to be socialized effectively because workforces are becoming more mobile and organizational loyalties are in decline. Statistical data shows that 25% of US workers are currently undergoing organizational socialization (Rollag, Parise, & Cross, 2005), and individuals change their jobs on average 10.2 times over a 20-year period (Bauer, Bodner, Erdogan, Truxillo, & Tucker, 2007). This suggests that effective socialization may be a key source of competitive advantage in an uncertain economic climate. From the newcomers' perspective, effective socialization may not only reduce their withdrawal intention and increase commitment, but might also reduce their anxieties about fitting and performing well in the new, less predictable environment they are entering (Carr, Pearson, Vest, & Boyar, 2006).

Since the early organizational socialization stage, when models first appeared in scientific literature (e.g. Feldman, 1976), more than 400 journal articles have elaborated and built upon the theory (Ashford & Nurmohamed, 2012) and various textbooks have been published (Kramer, 2010). The fast-growing number of different publications on organizational socialization, especially the methodological concerns within this body of literature, make it a challenging task

to navigate effectively through the literature and identify the key theories and articles. Two different approaches can be adopted to address this challenge and summarize the developments within the field for the reader: (i) the qualitative approach, which is centred on a traditional theoretical review of the literature, and (ii) the more recent quantitative and/or bibliometric approach, which examines scientific communication between various schools of thought in the same field through formal publication channels (Leydesdorff, 2001).

Recent qualitative reviews have tried to assess the breadth of the socialization literature (Ashford & Nurmohamed, 2012; Ashforth, Sluss, & Harrison, 2007; Bauer, Morrison, & Callister, 1998; Klein & Heuser, 2008; Saks & Ashforth, 1997a). They have traced the intellectual origin of the organizational socialization field, provided a synthesis of the definition of organizational socialization, discussed enablers and inhibitors of the socialization process, and summarized key empirical findings. Qualitative reviews have also traced and identified shortcomings in conceptual clarity, empirical gaps, and applicability. These reviews are crucial for assessing the state of the art of the field and for guiding the discussion about its future development. However, they are not immune to perceptual biases and subjectivity (Fernandez-Alles & Ramos-Rodriguez, 2009; Nerur, Rasheed, & Natarajan, 2008; Vogel & Güttel, 2012). Namely, qualitative reviews tend to reflect the idiosyncrasies of the reviewers, who are frequently deeply involved in the topic themselves (Vogel & Güttel, 2012). Moreover, as the number of publications in the field proliferates, it becomes increasingly demanding for qualitative reviews to capture the complexity of scholarly output. As a result, there is considerable variability in how commentators using the qualitative approach see organizational socialization as a field, how they think it should be applied, and which future research agendas should be prioritized.

This has resulted in fragmented theoretical concepts that provide us with variety of theoretical underpinnings to explore organizational socialization. As noted by Bauer et al. (2007, p. 707) ‘despite the strides made in the socialization research, the literature remains fragmented’. For example, Ashford and Nurmohamed (2012) suggested that theories with leverage in organizational socialization have been decidedly cognitive, varying from uncertainty reduction theories (as newcomers face a high level of uncertainty when they enter organizations) to person–environment fit theories in which the misfit or lack of experience of the job is associated with numerous negative outcomes. The last prominent theory used to address organizational socialization, in their opinion, is social identity, where individuals want to develop a ‘situated identity’ in their new settings. Alternatively, Kramer (2010) argued that four theoretical perspectives have frequently been used to examine the overall socialization process: uncertainty management; sense-making, where individuals assign meanings to experiences; social exchange theory, where individuals calculate the cost and effort it takes to maintain a particular social relationship; and, social identity theory. Therefore, a more structured and quantitative approach to summarizing the literature could help to provide a general picture of the organizational socialization field, thus facilitating the consolidation of the organizational socialization literature.

White and McCain (1998, p. 351) suggested that bibliometric techniques can provide a picture of the research in a discipline by analysing the ‘reflection in its rear window’. This general objective can be translated into three more specific objectives for this paper. Firstly, we aim to delineate the core themes of the field and any subfields that constitute the intellectual structure of organizational socialization literature. Secondly, we would like to determine if and how relationships between subfields and the core themes have changed over time. Thirdly, we aim to identify the most prominent papers in this field. We employ selected bibliometric methods, which involve working

with large amounts of bibliographic data (for a review see Verbeek, Debackere, Luwel, & Zimmermann, 2002) and are therefore more objective in nature (Vogel & Güttel, 2012). Specifically, we use co-citation analysis (Small, 1973) in order to explore the organizational socialization field.

Achieving these three goals will make a twofold contribution to the field. This vision of the socialization discipline can be of practical help to those in positions of political and professional responsibility in companies by enabling them to better absorb the fast-growing body of research under the organizational socialization umbrella. Such awareness can stimulate the use and implementation of key theories and concepts to solve problems in training, and their maintenance on a daily basis. Secondly, the principal contribution of this work is its academic relevance. Results obtained should be useful in validating and complementing qualitative literature reviews and critiques of the organizational socialization field, but they can also help cross-validate findings and evaluations. Furthermore, both new and established researchers can benefit from a comprehensive snapshot of the evolution of the field that also identifies the key authors that embody the intellectual structure of the field. This study might also indicate the theoretical and methodological issues that are stimulating research in the field of organizational socialization.

The article is divided into four parts. We first briefly touch upon the findings of mostly qualitative review studies of the organizational socialization field. In the second part, we present the research method utilized, and in the third, the results of our co-citation analysis are presented and discussed. Lastly, the conclusions and limitations of the study are presented. The paper finishes with a possible future agenda.

## **Organizational socialization as a fragmented field**

The socialization literature has been criticized over the last decades for being overly descriptive, atheoretical, lacking in understanding of the impact of sampling and data collection timing, and conceptually fragmented (e.g. Bauer et al., 1998; Fisher, 1986; Kramer, 2010; Saks & Ashforth, 1997a). The field has imported established theories or theoretical tenets from other topical areas, such as organizational behaviour (Ashford & Nurmohamed, 2012) and communication theories (Berger, 1979), yet it has also built on theories specifically developed to describe the organizational socialization process (Nicholson, 1984; Van Maanen & Schein, 1979). As a consequence, the literature in this field has been often described as fragmented and poorly understood (Bauer et al., 2007; Fisher, 1986), which has led to the point where no widely accepted ‘theory’ of organizational socialization exists (Saks & Ashforth, 1997a). Thus, when review studies try to make sense of the socialization process, they often refer to different (theoretical) ‘perspectives’ (Ashford & Nurmohamed, 2012; Ashforth, Sluss, & Harrison, 2007; Saks & Ashforth, 1997a), ‘categories’ (Bauer & Erdogan, 2011), and ‘socialization factors’ (Klein & Heuser, 2008) that can be used to explore, mould, and understand the process. For example, in a qualitative review study conducted by Klein and Heuser (2008), the socialization process is said to be influenced by organizational tactics and practices, social agents (defined as individuals that provide information), feedback, role models, social support, and newcomer proactivity. On the other hand, Bauer and Erdogan (2011) suggested that successful socialization is influenced by newcomer characteristics (e.g. proactive personality, personal traits etc.), new employee behaviours (defined as behaviours that help them clarify what is expected from them), and organizational socialization programmes.

In order to provide a coherent and comprehensible basis for this review, we have divided the socialization literature on the basis of two key criteria: the socialization approach, which looks at

the evolutionary path of the socialization literature; and, core theories, which looks at key theories that explain the broader socialization process using different (socialization) approaches.

### *The socialization approaches*

In general, the investigation of organizational socialization has typically followed three approaches that are not used in the same context or for the same reason. Firstly, the organizational stage approach (Feldman, 1976) describes individuals' experiences during the anticipatory, encounter, and change/acquisition stages of socialization. Thus, it emphasizes what organizations might do to bring about the desired state of socialization for the individuals they hire. Secondly, the organizational approach, which evolved from the Van Maanen and Schein's (1979) seminal work based on six bipolar socialization tactics (see Jones, 1986 for more a detailed explanation). Lastly, the individual approach, where the newcomers themselves can also be proactive as they hope to climb on board the organization successfully (Saks & Ashforth, 1996); this view emphasizes individuals' information and feedback seeking, along with relationship and network building (Morrison, 1993b; Wanberg & Kammeyer-Mueller, 2000).

More difficult to categorize are the factors than can comprise such approaches. Examples of these factors, which are mostly based on specific research interests, vary from information and feedback seeking, formal orientation, recruitment, realistic job previews, role of mentors, role of social and personal networks, job satisfaction, stress, and many more (e.g. Kammeyer-Mueller & Wanberg, 2003; Maier & Brunstein, 2001; Morrison, 1993b, 2002; Ostroff & Kozlowski, 1992).

### *The core theories*

In looking at core theories behind the socialization perspectives described in the previous sections, the literature is again less coherent. The most often used core theory to explain various



socialization perspectives, as pointed out by various qualitative reviews (Ashford & Nurmohamed, 2012; Saks & Ashforth, 1997a), is the uncertainty reduction theory, the roots of which lie in the interpersonal communication field (Berger, 1979). Newcomers experience uncertainty about their roles or jobs and how to perform them, as well as various uncertainties about organizational norms, culture, and how to relate to other social agents (Morrison, 1995). As noted by Kramer (2010), uncertainty reduction theory is especially powerful because it applies to all stages of the socialization process and it provides motives and the resulting behaviours that individuals use to learn and adapt to their new roles. Besides this widely accepted theory, various others have been suggested.

Sense-making and cognitive theories (Louis, 1980) explain how newcomers strive to construct situational definitions of organizational reality through social interactions. In doing so, newcomers develop ‘interpretive schema’ or a ‘cognitive map’ of their organizational surroundings, making their journey more pleasant (Weick, 1995). Other authors (Kramer, 2010; Weldeck & Myers, 2008) have suggested that social exchange theory should be used to explain the process in more detail by capturing the relational nature of the socialization process. Social exchange theory (Blau, 1964) provides another theoretical framework for exploring the entire assimilation process: when newcomers engage in social relations they explicitly or implicitly calculate the effort and cost needed to obtain information and maintain social relations. Lastly, social identity theory suggests that identity issues are explicitly part of the sense-making process (Weick, 1995). Some authors have suggested that social identity can be seen as the central concept of assimilation (Forward & Scheerhornd, 1996), while a strong identity within a collective may lead to a cascade of successful or unsuccessful trajectories driving socialization.

## **Data and methods**

### *Document co-citation*

We used a bibliometric technique called document co-citation analysis (DCA) to analyse the data (Small, 1973). A co-citation is defined as a measure used to find a similarity between two items, in our case cited documents. It supposes that when documents are cited together, there is some textual or theoretical similarity between them. In other words, papers that share a common theme will be cited together. Co-citation can be done on different units of analysis including documents and books (Ramos-Rodriguez & Ruiz-Navarro, 2004), authors (McCain, 1990), and journals. In our case, the unit of analysis was a document or a reference to the primary document.

The strength of connection between cited documents is enhanced if the occurrence of these two units appears multiple times in the studied dataset. In some cases, such an assumption could be wrong as documents representing an opposing school of thought might appear together (McCain, 1983); however, in most cases when the sample size is big enough it proves to be a valid assumption (Vogel, 2012). Thus, frequently co-cited documents form into groups that are homogeneous in content (Gmür, 2003; Noma, 1984; White, 2011). The ability of DCA to cluster documents and reveal patterns of association between documents make this instrument an adequate tool for studying the evolution of an academic field (White & McCain, 1998). Authors working in a specific field often cite one another as they draw from common sources of knowledge. What is more, others that work on similar intellectual themes will tend to cite sources together, making the clustering even more evident (Nerur et al., 2008).

DCA has gained widespread applicability, having been successfully applied to various fields of research in order to clarify the different evolutionary paths of the fields and their most prominent authors; for example, it has been applied in human resource management, strategic management,

and management and organizational science (e.g. Appio, Cesaroni, & Di Minin, 2014; Fernandez-Alles & Ramos-Rodriguez, 2009; Nerur et al., 2008; Pilkington, 2008; Ramos-Rodriguez & Ruiz-Navarro, 2004; Vogel, 2012).

### *Data*

Following the standard procedures of co-citation analysis (for technical overviews see McCain, 1990, 1991), we started by determining our sample of source (primary) literature. From the literature on database quality (Jacso, 2005), we chose the ISI Web of Knowledge as our target for information retrieval. The primary articles were selected by applying a combination of the nine keywords that received the highest consensus from three experts in the particular field. The inter-rate reliability was 0.68 and was based on Fleiss' Kappa (Fleiss, 1971). The keywords were: newcomer, newcomers, organizational socialization, new employee, new employees, adjustment, uncertainty, onboarding, and socialization outcomes. We divided the keywords in two groups: one of general socialization keywords, or the 'input' to the process (newcomer, newcomers, organizational socialization, new employee, new employees); the second group reflected the 'outcome' of the socialization process (adjustment, uncertainty, onboarding, socialization outcomes). We merged all the input and outcome keywords for the socialization process with the operator 'AND' in order to capture the socialization process more coherently (e.g., newcomer AND adjustment). The search on the ISI Web of Knowledge was conducted for article titles and abstracts. As a result, there were 326 (primary) articles, the abstracts of which were read carefully – the ones that did not fit the research theme (i.e. not referring to the organizational socialization process) were eliminated. As a result, our final sample was composed of 171 primary articles.

### *Methods*

The citations were then extracted from the primary articles. For this step, we used Bibexcel (Persson, Danell, & Schneider, 2009), which gave us 10,949 secondary articles with dates varying from 1776 to 2012 that were used to produce a raw co-occurrence matrix. This matrix was considered to be symmetrical, thus it already carried some similar properties (White, 2003), and therefore Pearson's correlation normalization was not applicable (Leydesdorff & Vaughan, 2006). This matrix was then exported into the Pajek network software (Batagelj & Mrvar, 1998). By analysing the data using network approaches, we avoided difficulties that occur in analysing co-citation with classical principal component analysis methods. These can range from components that quickly become too nested to be explained with sufficient rigour to more practical problems posed by the subjective judgement thresholds following extensive experimentation with the data (cf. Alcázar, Fernández, & Gardey, 2008). What is more, the great advantage of using raw frequencies in the network analysis of co-citation data lies in its simplicity (White, (2003). Unlike the classical co-citation analysis, where multiple passes are required to analyse the data properly, network analysis creates links between documents in one pass, making it a better choice for dealing with large datasets. Network diagrams can be seen as maps that have been unconsciously 'drawn' by scholars through their publications over decades (Vogel, 2012). Such maps have a better explanatory power than classical methods, as well as flexibility in the analysis process (Polites & Watson, 2009).

The final step of the analysis was done with an island algorithm in Pajek. This method was especially designed to cluster dense networks where the differentiation of clusters can be problematic. An island is defined as a maximal subnetwork of vertices connected directly or indirectly by lines with a value higher than the lines outside (De Nooy, Mrvar, & Batagelj, 2011). In our specific case, islands represent clusters of connected secondary papers that have been cited

together at least a certain number of times. The link between two papers (nodes) is the number of times when both secondary references appear together on reference lists of primary articles. These lines can be seen as the height of the island; thus, the higher the number, the higher the island's peak will be. The program allows us to manipulate the level of the 'water' in which the islands are immersed. By changing the level of water we get different co-citation landscapes – archipelagos. The algorithm can handle different minimum and maximum island sizes. In our case, we set the lower limit to two in order to capture subfields as precisely as we could (or symbolically speaking, to capture mountain summits on an island). The upper boundary was set to the number of components of the bigger island minus one. This identified plateaus and mountain groups corresponding to discovered summits.

To present the results more clearly, we decided to split the results into three time frames. A decade was chosen as the best representation of the intellectual evolution of the field (Vogel, 2012). Thus, the results were grouped into the 1980s and before, the 1990s, and the 2000s and later. Separation into decades offers multiple advantages: firstly, it allows us to better visualize the field and follow our objectives in finding the evolution of any pattern of the field; secondly, it allows a comparison between our bibliometric study and the self-conceptions that have arisen in the organizational literature, because practitioners often use calendrical decades as developmental periods in their field (e.g. Vogel, 2012).

## **Results**

In this section, the results from the analysis are presented for each of the three decades covered by the study. In most cases, the decade is dominated by one or two prominent clusters of many papers, making the exploration of these islands individually worthwhile. The results from each decade are

presented in the tables. In order to explore the main evolutionary path, only the most important island is described in detail. Each table is organized as follows: the column *Domain label* includes the appropriate umbrella term for the whole cluster of articles; *No of documents* refers to how many articles are included in each cluster; *Typical representatives* give the reader some of the most prominent articles in each cluster; *Key findings* briefly discusses a common theme of the cluster with some key findings where appropriate; and, the last column shows the possible evolution of the cluster in the next decade (i.e. 1990s, 2000s). Due to the actuality of the last decade, a network map for this decade is presented as well.

### *The 1980s and before*

Table 1 shows the intellectual map of the field for the 1980s and before. Seven islands can be clearly identified and the most important of these comprises 18 papers. We refer to this island or domain by the term *seminal organizational socialization views*. This island is an umbrella under which different theories converge in a common theme. The most prominent and central role in this island is played by Van Maanen and Schein's (1979) book chapter, proposing six bipolar tactics that can be used by organizations to foster the socialization process. Their main argument is that newcomers eventually adjust to these tactics. Jones (1986) later followed the same steps in testing these tactics and established that some of them can reduce uncertainty and foster the passive acceptance of preset roles. Louis (1980), on the other hand, adopted a more cognitive approach in which newcomers try to make sense of the organizational situation. Furthermore, this domain also tries to explore the usefulness of socialization practices and their influence on adjustment (Louis, Posner, & Powell, 1983), where one of the options is to adjust by seeking interaction opportunities with organizational insiders (Reichers, 1987).

----

Insert Table 1 about here

----

Apart from the main cluster, six other minor clusters appeared, showing the breadth of the theoretical foundations of organizational socialization literature, which include *mentoring*, *organizational commitment*, *career planning and involvement*, *methodological advancement*, *commitment view*, and *anticipatory socialization*.

### *The 1990s*

In the 1990s, the field of organizational socialization is observed to branch out (see Table 2), as only four clusters appeared. The largest research area or cluster represents *newcomer proactivity and uncertainty*, which is composed of 20 articles. The central actors in this island are Morrison (1993a) and Ostroff and Kozlowski (1992). Both of their papers try to capture how newcomers reduce perceived uncertainty with the help of information-seeking behaviours; most importantly, they argued that newcomers face different types of uncertainty. Numerous authors have proposed different typologies for explaining why it is critical for newcomers to reduce uncertainty when joining an organization (e.g. Chao, O'Leary-Kelly, Wolf, Klein, & Gardner, 1994; Miller & Jablin, 1991). For example, Morrison (1993a) found that newcomers who gained more information from their peers would be potentially more satisfied, perform better, and be less likely to leave the organization. While information seeking is important, so are the relationship-building and the networking processes that newcomers can use proactively to obtain such information (Ashford & Black, 1996).

----

Insert Table 2 about here

----

Only three other clusters are identified in this decade: *inter-organizational relations*, *methodological advancements*, and *dynamics*.

#### *The 2000s and later*

The intellectual structure for the last period is marked by an explosion of small knowledge domains (9 islands emerged; see Table 3). However, the field seems to have polarized into two large clusters. The strongest and biggest component, with 20 articles, appears to focus on *comprehensive understanding of the field*. Many review studies have a central position in the island, signalling that socialization research is maturing, with a focus on understanding the ‘big picture’ (Bauer et al., 2007). On the other hand, most empirical studies tried to include a comprehensive list of variables (predictors, moderators, mediators, and outcomes) that can explain the socialization process (e.g. Ashforth, Sluss, & Saks, 2007; Kammeyer-Mueller & Wanberg, 2003; Kim, Cable, & Kim, 2005). Some novel findings come from looking at the socialization process from a network perspective (Morrison, 2002), as well as from the examination of methodological issues (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003) and methodological advancements, such as hierarchical linear modelling (Chen & Klimoski, 2003).

----

Insert Table 3 about here

----

The second island, comprising 16 articles, is considered to be a plateau as all connections share the same height (two), meaning that the number of co-citations between each paper is two. The main theme in this island was identified as *organizational socialization in international and operational management*. From this perspective, organizational socialization is crucial to the



knowledge flow of subsidiary companies (e.g. Gupta & Govindarajan, 2000; O'Donnell, 2000) or to supply chain management where, especially in eastern cultures, socialization mechanisms are fostered by managers themselves (Lee, 2004).

Minor clusters in this decade also explored: *mentoring, newcomers' attributes, methodology, intergroup identification, job demands–resources model, organizational assimilation index (OAI), and job crafting.*

Figure 1 depicts the field's intellectual map of the 2000s and later, which was created with Pajek. Nine islands can be clearly identified. The lines between the documents (nodes) represent the number of co-citations between articles. The frequency of co-citations is a measure of the proximity between papers: the higher the value, the more proximal the two articles are – in most cases they share similar ideas and core concepts. The level of shading of the nodes of the documents (nodes) shows the clustering of different intellectual domains.

----

Insert Figure 1 about here

----

### *Organizational socialization field evolution*

When looking for the most prominent scholarly outputs in the field's evolution, it appears that the most important co-citation pair throughout the time frame of our analysis is Jones (1986) and Van Maanen and Schein (1979). This suggests that the foundation of organizational socialization comes from within the field and focuses on organizational tactics. Other important authors can be seen in Table 4.

----

Insert Table 4 about here

----

Next, we identified the journals in which the socialization process received most attention. When looking at the primary articles, it appears that the main journals where socialization research were published are applied psychology journals, such as the Journal of Applied Psychology and the Journal of Vocational Behavior, and in the last decade also more generalist management publications such as the Academy of Management Journal. However, when looking at what the articles cite, the picture is a bit different – and this duality was present for all time intervals considered in our analysis. Thus, besides psychology journals, general management journals like the Academy of Management Review and the Administrative Science Quarterly have been cited. This suggests that the majority of this field is driven by articles in psychological journals, which draw their knowledge from different fields. More detailed results are presented in Table 5.

----

Insert Table 5 about here

----

As one of the objectives of this paper was to trace the evolution of the intellectual structure of the organizational socialization field, we used Vogel's (2012) framework for dynamic patterns of field evolution to determine if any connections between the main domains and subdomains exist, and how such connections evolved through the decades studied in our research. Figure 2 shows the main path of intellectual structure evolution, going from *seminal organizational socialization views* to *newcomer proactivity and uncertainty* to finish with a *comprehensive understanding of the field*. Moreover, Figure 2 also presents the pattern of dynamics among minor knowledge domains.

----

Insert Figure 2 about here

----

Knowledge domain appearance is an example of when a predecessor is not presented, thus the domain appears without foundations. In our example, many domains share this path of emergence (for example, *organizational commitment*, *anticipatory socialization*, *organizational assimilation index*, *newcomers' attributes*, *organizational socialization in international and operation management*, *career planning and commitment view*). These domains emerged as methods or theories to better inform the debate or as suggestions from review studies (e.g. Griffin, Neal, & Parker, 2007; Taylor, 1988). However, it appears that they are more common at the beginning of our time frame.

A knowledge domain implosion is when a subfield in the late stage disappears without a successor. In our case this phenomenon is closely related to the knowledge domain appearance. We cannot argue about the future evolution after the last decade as the aim of this review is not to predict a possible path of evolution (c.f. Kunz & Hogreve, 2011). However, an examination of the first two decades identifies *organizational commitment* and *anticipatory socialization* as possible candidates for such development over time. An implosion can be caused by a lack of empirical evidence for a phenomenon, or that it has already been explored adequately.

Knowledge domain revival refers to the reappearance of a domain that has temporarily disappeared and emerged again at a later stage. The *mentoring domain* in our study is a good example of such a phenomenon; it appears in the 1980s, then disappears, but then reappears in the 2000s. The switch happened in the latest period when research became more focused on the different outcomes and

benefits of establishing mentoring programmes (e.g. Wanberg, Welsh, & Hezlett, 2003), rather than just on the mentoring relationship, as in the 1980s (e.g. Kram, 1985).

Knowledge domain transformation is the gradual or a sudden transition of an existing domain; sometimes, such a transformation might eventually result in the formation of a new domain. As Vogel (2012) suggested, this path applies to all domains as they always change over time. In our case, this developmental path is most explicit for the *methodology* domain. Methodological issues started to appear in the 1980s, when awareness of response bias and the use of novel techniques became available to help researchers find stronger evidence. A switch to other methodological solutions, such as partial least squares (e.g. Chin, 1998) characterized the 1990s; finally, a multilevel approach was brought to the attention of researchers in the last decade (e.g. Kozlowski & Klein, 2000). This evolutionary path is consistent with a pressing call for a better research design, because the socialization process was being seen as multifaceted (e.g. Klein & Heuser, 2008; Vancouver & Warren, 2012).

A knowledge domain drift, where a knowledge domain becomes incorporated into another pre-existing one, is also present. In our example, there are two such drifts: the inclusion of *career planning* from the 1980s in the *mentoring domain* in the last decade, and the inclusion of the *methodological advancement* from the 1980s and 1990s in the main cluster of *comprehensive understanding of the field* in the last decade (e.g. Chen, 2005; Podsakoff et al., 2003).

Lastly, knowledge domain differentiation describes the process by which a broader domain splits into several more specialized domains. We can also think about it as divergent evolution. In our case, the *dynamics of job performance* (e.g. Ployhart & Hakel, 1998) in the 1990s split into two more specialized components in the following decade. Specifically, it evolved into the *job crafting*

*component* on the one hand (e.g. Morgeson, Delaney-Klinger, & Hemingway, 2005), and the *job demand resource model* on the other (Bakker & Demerouti, 2007). *Job crafting* describes the process by which employees actively shape, mould, and redefine their jobs (e.g. Morgeson et al., 2005; Wrzesniewski & Dutton, 2001), whereas in the *job demands–resources model* employees are linked to the distinct dimension of burnout (e.g. Bakker & Demerouti, 2007).

We also conducted a supplementary analysis and looked at the homogeneity and heterogeneity of the islands identified in the analysis. We assessed the intra-cluster homogeneity by calculating the average co-citation ‘height’ of the islands. This allowed us to compare the similarity of co-citations constituting the islands, where a higher average mean represents a higher level of similarity. The results show that the heterogeneity of knowledge islands in most decades is high, apart from the first two decades, where the two main islands (*seminal organizational socialization views* and *newcomer proactivity and uncertainty*) show bigger homogeneity. Overall, the results show that there is no knowledge domain or theory that is really dominant throughout the whole of the 30 years taken into consideration.

----

Insert Table 6 about here

----

We also looked at inter-cluster heterogeneity, which is operationalized as the standard deviation of an island’s co-citation ‘height’. The results in Table 6 reveal that the most heterogeneity is present on the main island in the 1990s, followed by the main island in the 1980s. Apart from that, smaller islands in the 1980s and 1990s and the last decade (because it is recent) show a fairly similar pattern of low heterogeneity. Lastly, *organizational socialization in international and*

*operational management* share a standard deviation of only 1.02 in the 2000s, which can be considered to be a plateau due to its low dispersion.

## **Discussion**

The goal of this study was to shed light on the dynamics of the organizational socialization research field's evolution over the last three decades. Overall, the results in this study demonstrate the breadth and diversity of the theoretical and empirical foundations of the socialization field. The co-citation analysis, complemented and refined by the deployment of the island algorithm, gave a visual impression of the density and interconnectedness of scholarly output in this field. Furthermore, the use of recent bibliometric techniques such as the island algorithm enabled us to identify the trajectories of research within the field of organizational socialization, which will be useful in the discussion of the future research agenda.

The organizational socialization field has built on integrated aspects of communication, careers, and various behavioural theories among others, as well as on theories that were developed within the field itself. In conceptual terms, several theories such as job crafting, mentoring, and anticipatory socialization have created distinct bodies of literature. It needs to be acknowledged that underneath the main domains identified by our analysis, there are a substantial diversity of topics; thus, the overall group might be relevant to a number of theoretical areas. Notwithstanding this complexity, in this paper we still provided the key messages from each cluster.

As an overall finding, the results suggest and support the idea that organizational socialization is far from being a well-defined field backed with strong empirical evidence (Ashford & Nurmohamed, 2012; Saks & Ashforth, 1997a). It is apparent that even though researchers have

called for unifying theories of organizational socialization (Saks & Ashforth, 1997a), the field appears to be developing along a path of theoretical and conceptual diversification.

This bibliometric analysis shows that research within the organizational socialization field leads both to differentiation and to identity formation. The main evolutionary path of socialization research (see Figure 2) corresponds to the core cluster of *seminal organizational socialization views*, which evolved through *newcomers' proactivity and uncertainty* in the 1990s and further developed into *comprehensive understanding of the field* in the final decade of the study.

It seems that the foundation of the socialization field resides in Van Maanen and Schein's (1979) articulation of the six tactics that organizations can use for socialization of employees. Besides this, two things are clear from observing this first cluster. Firstly, even though qualitative studies judged staged models of the socialization process as problematic (Fisher, 1986), in the 1980s newcomers' stages of socialization were explored in detail (Feldman, 1981). Secondly, social agents are very important as the socialization process mostly happens through interactions with other organizational insiders (Reichers, 1987), which also give newcomers social support (Fisher, 1985), thus suggesting that the interactionist perspective is important. However, the main message of this cluster is that the uncertainty reduction theory has not been given as prominent a role in explaining the socialization process as the sense-making theory (Louis, 1980). This finding is surprising and contradicts the suggestions of other review studies where uncertainty reduction theory is given the main and most prominent role, especially from the historical point of view (cf. Ashforth, Sluss, & Harrison, 2007; Bauer et al., 2007).

Beyond the main cluster, there are signals that the theoretical roots of socialization are also found in career theory (e.g. Kram & Isabella, 1985). The lack of interest of socialization scholars in this

area might change in the current turbulent times when potential (additional) job transitions and career planning might be more important for newcomers than before.

In the 1990s, there was a major shift towards a more agentic view, where newcomers are not seen as passive actors but show proactive behaviours as well. In this decade, the possible core mechanism that explains the socialization (stage) process moved dramatically in the direction of the uncertainty reduction theory as the motivating mechanism for newcomers seeking information (Morrison, 1993a, 1993b). Although, social cognitive theory was also apparent in some studies (Ostroff & Kozlowski, 1992), this was less prominent. The 1990s also started to see socialization as the predominant learning process (Chao et al., 1994; Ostroff & Kozlowski, 1992). Some qualitative studies have differentiated between proactivity and socialization learning (Ashforth, Sluss, & Harrison, 2007), but our results show that they might be interconnected. Lastly, the predominant topic of the previous cluster is now barely visible (Ashforth & Saks, 1996; Saks & Ashforth, 1997b), which suggests that we need more integrative approaches, as indicated by the appearance of new review studies (e.g. Saks & Ashforth, 1997a).

The development path of organizational socialization literature finishes with the *comprehensive understanding of the field*, where instead of unification, we see diversification. Proactivity is still very much a focal issue (Crant, 2000), as is the organizational view; however, both views are merged into studies that try to account for a person-by-situation approach (Bauer et al., 2007; Gruman, Saks, & Zweig, 2006; Kammeyer-Mueller & Wanberg, 2003; Kim et al., 2005). Many studies focus on how both individuals' dispositions and behaviours and broader organizational tactics influence newcomer's adjustment. Overall, the core theoretical foundations of socialization are still the same: uncertainty reduction theory, sense-making theory, and social cognition theory, which also spill over to another cluster, *job crafting*.



On a methodological note, socialization literature has always been considered more theoretical than empirical (Saks & Ashforth, 1997a), so it is not surprising that a cluster of methodological suggestions appears in the main cluster and also as a separate one. One point common to both is that multilevel theory should be considered (e.g. Kozlowski & Klein, 2000), because the connection between the individual and the organization (organizational tactics) unfolds across all levels of analysis. At this stage of development in the socialization field, such dynamics are to be expected (Short, 2009) as the authors try to make sense of what we know and because of that propose integrative frameworks.

According to our analysis, other clusters of organizational research that link to socialization are in the process of splitting. For example, *job crafting* and the *job demand resource model* look at similar constructs including burnout, social support, and shaping the job, which are linked to various outcomes such as job performance (e.g. Morgeson et al., 2005). Looking at these two clusters, there is an overlap with theory in the socialization field, which is touched upon in most qualitative reviews (e.g. Ashforth, Sluss, & Harrison, 2007). Moreover, the *methodology* cluster, which mostly relates to the use of a multilevel approach in socialization research, has gained momentum in the last decade, yet was not clearly mentioned in any qualitative study.

When looking at core theories that can explain the socialization process, we believe three key theories can be presented: (1) the organizational uncertainty reduction theory, which is the most versatile and popular in the field; (2) sense-making, which was the first one to emerge historically; and (3) the minor and less frequently used social cognitive theory. The findings in this respect differ from other review studies. For example, we did not find that the foundations of the social identity theory (Ashford & Nurmohamed, 2012; Kramer, 2010) or social exchange theory (Weldeck & Myers, 2008) were strongly present in our map of the field's intellectual structure. In

addition, we did not find much support for the person–environment fit theory mentioned by Ashford and Nurmohamed (2012), although we did find some scarce evidence in our results (e.g. Chatman, 1991; Kim et al., 2005). This points to the theoretical fragmentation of the socialization field, and to the multitude of theories used to better understand and explore the socialization process. However, it also illustrates the flexibility of the field, because key theories can be brought in from outside the socialization field and adapted for use there.

This bibliometric analysis complements qualitative reviews of organizational socialization literature. Reviews continuously look to capture and concentrate on the meaning of socialization theory(ies) and present taxonomies and cumulative frameworks to enable them to conduct their studies (e.g. Ashford & Nurmohamed, 2012; Bauer et al., 2007; Klein & Heuser, 2008; Saks & Ashforth, 1997a). Our study elucidates the past, current, and possible future trends for research in the field. At the same time, we examined the emergence of the field and highlighted the identity-building core of the field. Overall, we can perhaps simplify the focus on the field to three key aspects: (1) the organizational socialization tactics view; (2) newcomer proactivity, information seeking, and the uncertainty reduction process; and (3) a person-by-situation approach, as a mix of both. These findings complement some of the qualitative studies (Ashford & Nurmohamed, 2012), but contrast with others (Ashforth, Sluss, & Harrison, 2007; Klein & Heuser, 2008). In our view, overcomplicating the field is not necessary and might even be counterproductive as further fragmentation may occur before the key mechanisms are explored in a sufficient and thoughtful manner.

As far as organizational practice is concerned, practitioners should benefit from a better understanding of the interplay between the person and the environmental fit factors that is starting to appear in the research in the latest period. As such a perspective accounts for both organizational

and individual initiatives, this could facilitate practical solutions to the design of HR practices and the selection process to bring onboard the right newcomers. It is also worth thinking about the uncertainty and the sense-making process that newcomers undertake upon entry. Better understanding of these processes from the practitioner's perspective can help to identify clues as to what steps might help newcomers adjust more quickly.

Nevertheless, more conceptual work is necessary to realize the full potential of organizational socialization in order to deepen our understanding of the subfields of the research presented in our study and establish in a more concise and exact way how the diverse strands of organizational socialization interrelate.

#### *Limitations and suggestions for future research*

Despite the advantages and useful insights that can be gained by using bibliometrics, one of the drawbacks is that we cannot capture the whole context and the intentions behind authors' citing decisions (Fernandez-Alles & Ramos-Rodriguez, 2009; Vogel & Güttel, 2012). In the organizational socialization context, this limitation is demonstrated by the debate around the organizational tactics where Ashforth and Saks (1996) cited Jones (1986) to react to what they thought was problematic measurement in the cited paper. Thus, we cannot account for the complex nature of citing behaviour, which may take the form of criticism or praise. What is more, referencing could be motivated by self-legitimization strategies and micro-politics (cf. Bornmann & Daniel, 2008). Moreover, the limitations of the actual ISI database could lead to incomplete or missing references, with some entries that might have an important impact upon the present debate and the results presented in this article not being included. Although these limitations are problematic, they are not exclusive to bibliometric techniques.

One of the more subjective limitations in bibliometrics is the use of specific keywords, the choice of which could lead us to neglect some of the specific themes, thus having an important effect on the overall picture as well as on the various thresholds (e.g. island sizes) used in the analysis. Again, however, this is also a limitation of meta-analysis. We tried to overcome these problems by using keywords approved by three experts and by a big sample size was derived using these keywords, which means that the chance of missing important articles was reduced.

The findings suggest that research in organizational socialization is not exhaustive, and that more research is needed to explore certain important aspects in depth. For instance, in the methodology cluster in the 2000s, further research is needed in order to understand the conceptual and theoretical foundations of the cross-level mechanisms in the socialization field. These findings could help promote multilevel research in the organizational field because socialization happens at all the relevant levels of an organization: organizational, group, and individual (Ashforth, Sluss, & Harrison, 2007).

As noted for the last time period, the main evolutionary path ended in a big inconsistent island, with many subthemes emerging from it. What can be seen clearly is that we should still try to identify all the possible variables that might influence the organizational socialization process. One possibly fruitful avenue of future research is the inclusion of the social context and how the social networks in which newcomers are embedded can influence such a process. In fact, some important work addressing this issue has appeared in the last decade in the main cluster of organizational socialization (e.g. Morrison, 2002). Such a research agenda is also coherent with the call for a more relational perspective in socialization research (Korte, 2010), and with previous attempts in the 1980s to study the relationship between newcomers and other social agents (Reichers, 1987). Furthermore, as previous research has mainly focused on positive outcomes of

the socialization process, it might be useful to explore the negative aspects, the so-called destructive newcomers' behaviours (Bauer et al., 2007). For example, future research could clarify whether the socialization process influences knowledge hiding or the use of socialization for organizational politics.

Because the roots of organizational socialization reside in the organizational perspective of the same process (e.g. Van Maanen & Schein, 1979), most of the studies have tried to complement this view with more emphasis on individuals. However, from the managerial standpoint, two important topics are missing from the research agenda of the organizational socialization literature and so do not appear in our results: leadership and human resource management (Cooper-Thomas & Anderson, 2006). Both topics imply more emphasis being placed on the practical aspects of socialization, like the training of newcomers. They are also key topics in the discussion of how organizations can put the organizational socialization process and knowledge into action on an everyday basis, and they therefore link this process with the more practical organizational context (Cooper-Thomas & Anderson, 2006).

## References

- Alcázar, F. M., Fernández, P. M. R., & Gardey, G. S. (2008). Human Resource Management as a Field of Research. *British Journal of Management*, *19*(2), 103-119.
- Allen, T. D., Eby, L. T., Poteet, M. L., Lentz, E., & Lima, L. (2004). Career Benefits Associated With Mentoring for Proteges: A Meta-Analysis. *Journal of Applied Psychology*, *89*(1), 127-136.
- Anderson, C. M., Riddle, B. L., & Martin, M. M. (1999). Socialization processes in groups. In L. R. Frey, D. S. Gouran & M. S. Poole (Eds.), *The handbook of group communication: Theory and research* (pp. 139-163). Thousand Oaks, CA: Sage.
- Appio, F., Cesaroni, F., & Di Minin, A. (2014). Visualizing the structure and bridges of the intellectual property management and strategy literature: a document co-citation analysis. *Scientometrics*, *101*(1), 623-661.
- Ashford, S., & Nurmohamed, S. (2012). From Past to Present and Into the Future: A Hitchhiker's Guide to the Socialization Literature. In C. R. Wanberg (Ed.), *The Oxford Handbook of Organizational Socialization* (pp. 8-24). Oxford: Oxford University Press.
- Ashford, S. J., & Black, J. S. (1996). Proactivity During Organizational Entry: The Role of Desire for Control. *Journal of Applied Psychology*, *81*(2), 199-214.
- Ashforth, B. E., & Saks, A. M. (1996). Socialization Tactics: Longitudinal Effects on Newcomer Adjustment. *The Academy of Management Journal*, *39*(1), 149-178.
- Ashforth, B. E., Sluss, D. M., & Harrison, S. H. (2007). Socialization in Organizational Contexts. In G. P. Hodgkinson & J. K. Ford (Eds.), *International Review of Industrial and Organizational Psychology 2007* (pp. 1-70): John Wiley & Sons Ltd.
- Ashforth, B. E., Sluss, D. M., & Saks, A. M. (2007). Socialization tactics, proactive behavior, and newcomer learning: Integrating socialization models. *Journal of Vocational Behavior*, *70*(3), 447-462.
- Bagozzi, R., & Yi, Y. (1988). On the evaluation of structural equation models. *Journal of the Academy of Marketing Science*, *16*(1), 74-94.

- Bakker, A. B., & Demerouti, E. (2007). The Job Demands-Resources model: state of the art. *Journal of Managerial Psychology*, 22(3), 309-328.
- Batagelj, V., & Mrvar, A. (1998). Pajek - A Program for Large Network Analysis. *Connections*, 21(2), 47-57.
- Bauer, T. N., Bodner, T., Erdogan, B., Truxillo, D. M., & Tucker, J. S. (2007). Newcomer Adjustment During Organizational Socialization: A Meta-Analytic Review of Antecedents, Outcomes, and Methods. *Journal of Applied Psychology*, 92(3), 707-721.
- Bauer, T. N., & Erdogan, B. (2011). Organizational socialization: The effective onboarding of new employees. In S. Zedeck, H. Aguinis, W. Cascio, M. Gelfand, K. Leung, S. Parker & J. Zhou (Eds.), *APA handbook of industrial and organizational psychology* (Vol. 3, pp. 51-64). Washington, DC: APA Press.
- Bauer, T. N., Morrison, E. W., & Callister, R. R. (1998). Organizational socialization: A review and directions for future research. In G. R. Ferris (Ed.), *Research in personnel and human resources management* (Vol. 16, pp. 149-214). Greenwich, CT: JAI Press.
- Berger, C. R. (1979). Beyond initial interactions: uncertainty, understanding and the development of interpersonal relationships. In H. Giles & N. S. Clair (Eds.), *Language and social psychology* (pp. 122-144). Baltimore: University Park Press.
- Blau, P. (1964). *Power and exchange in social life*. New York: Wiley & Sons.
- Bornmann, L., & Daniel, H.-D. (2008). What do citation counts measure? A review of studies on citing behavior. *Journal of Documentation*, 64(1), 45-80.
- Carr, J. C., Pearson, A. W., Vest, M. J., & Boyar, S. L. (2006). Prior Occupational Experience, Anticipatory Socialization, and Employee Retention. *Journal of Management*, 32(3), 343-359.
- Chao, G. T., O'Leary-Kelly, A. M., Wolf, S., Klein, H. J., & Gardner, P. D. (1994). Organizational Socialization: Its Content and Consequences. *Journal of Applied Psychology*, 79(5), 730-743.
- Chatman, J. A. (1991). Matching People and Organizations: Selection and Socialization in Public Accounting Firms. *Administrative Science Quarterly*, 36(3), 459-484.

- Chen, G. (2005). Newcomer Adaptation In Teams: Multilevel Antecedents And Outcomes. *Academy of Management Journal*, 48(1), 101-116.
- Chen, G., & Klimoski, R. J. (2003). The Impact of Expectations on Newcomer Performance in Teams as Mediated by Work Characteristics, Social Exchanges, and Empowerment. *The Academy of Management Journal*, 46(5), 591-607.
- Chin, W. W. (1998). The partial least squares approach for structural equation modeling. In G. A. Marcoulides (Ed.), *Modern Methods for Business Research* (pp. 295-336). NJ: Lawrence Erlbaum Associates.
- Cooper-Thomas, H. D., & Anderson, N. (2006). Organizational socialization: A new theoretical model and recommendations for future research and HRM practices in organizations. *Journal of Managerial Psychology*, 21(5), 492-516.
- Crant, J. M. (2000). Proactive Behavior in Organizations. *Journal of Management*, 26(3), 435-462.
- De Nooy, W., Mrvar, A., & Batagelj, V. (2011). *Exploratory Social Network Analysis with Pajek* (2nd ed.). Cambridge: Cambridge University Press.
- Feldman, D. C. (1976). A Contingency Theory of Socialization. *Administrative Science Quarterly*, 21(3), 433-452.
- Feldman, D. C. (1981). The Multiple Socialization of Organization Members. *The Academy of Management Review*, 6(2), 309-318.
- Fernandez-Alles, M., & Ramos-Rodriguez, A. (2009). Intellectual Structure of Human Resources Management Research: A Bibliometric Analysis of the Journal Human Resource Management, 1985-2005. *Journal of the American Society for Information Science and Technology*, 60(1), 161-175.
- Fisher, C. D. (1985). Social Support and Adjustment to Work: A Longitudinal Study. *Journal of Management*, 11, 39-53.
- Fisher, C. D. (1986). Organizational socialization: An integrative review. In K. M. Rowland & G. R. Ferris (Eds.), *Research in personnel and human resources management* (Vol. 4, pp. 101-145). Greenwich, CT: JAI Press.



- Fleiss, J. L. (1971). Measuring nominal scale agreement among many raters. *Psychological bulletin*, 76(5), 378-382.
- Forward, G. L., & Scheerhornd, D. (1996). Identities and assimilation process in the modern organization. In H. B. Mokres (Ed.), *Interaction & Identity* (Vol. V, pp. 371-391). New Brunswick, NJ: Transaction Publishing.
- Gmür, M. (2003). Co-citation analysis and the search for invisible colleges: A methodological evaluation. *Scientometrics*, 57(1), 27-57.
- Gould, S. (1979). Characteristics of Career Planners in Upwardly Mobile Occupations. *Academy of Management Journal*, 22(3), 539-550.
- Griffin, M. A., Neal, A., & Parker, S. K. (2007). A new model of work role performance: Positive behavior in uncertain and interdependent contexts. *Academy of Management Journal*, 50(2), 327-347.
- Gruman, J. A., Saks, A. M., & Zweig, D. I. (2006). Organizational socialization tactics and newcomer proactive behaviors: An integrative study. *Journal of Vocational Behavior*, 69(1), 90-104.
- Gupta, A. K., & Govindarajan, V. (2000). Knowledge flows within multinational corporations. *Strategic Management Journal*, 21(4), 473-496.
- Hofmann, D. A., Jacobs, R., & Baratta, J. E. (1993). Dynamic Criteria And The Measurement Of Change. *Journal of Applied Psychology*, 78(2), 194-204.
- Jacso, P. (2005). As we may search - Comparison of major features of the Web of Science, Scopus, and Google Scholar citation-based and citation-enhanced databases. *Current Science*, 89(9), 1537-1547.
- Jones, G. R. (1986). Socialization Tactics, Self-Efficacy, and Newcomers' Adjustments to Organizations. *The Academy of Management Journal*, 29(2), 262-279.
- Kammeyer-Mueller, J. D., & Wanberg, C. R. (2003). Unwrapping the organizational entry process: Disentangling multiple antecedents and their pathways to adjustment. *Journal of Applied Psychology*, 88(5), 779-794.

- Kim, T.-Y., Cable, D. M., & Kim, S.-P. (2005). Socialization Tactics, Employee Proactivity, and Person-Organization Fit. *Journal of Applied Psychology, 90*(2), 232-241.
- Klein, H. J., & Heuser, A. E. (2008). The learning of socialization content: A framework for researching orientating practices. *Research in personnel and human resources management, 27*, 279-336.
- Korte, R. (2010). 'First, get to know them': A relational view of organizational socialization. *Human Resource Development International, 13*(1), 27-43.
- Kozlowski, S. W. J., & Klein, K. J. (2000). A multilevel approach to theory and research in organizations: Contextual, temporal, and emergent processes. In S. W. J. Kozlowski & K. J. Klein (Eds.), *Multilevel Theory, Research, and Methods in Organizations* (pp. 3-90). San Francisco: Jossey-Bass.
- Kram, K. E. (1985). *Mentoring at work: developmental relationships in organizational life*. Glenview, Illinois: Scott Foresman.
- Kram, K. E., & Isabella, L. A. (1985). Mentoring alternatives - The role of peer relationships in career-development. *Academy of Management Journal, 28*(1), 110-132.
- Kramer, M. W. (2010). *Organizational Socialization: Joining and leaving organizations*. Cambridge: Polity Press.
- Kunz, W. H., & Hogueve, J. (2011). Toward a deeper understanding of service marketing: The past, the present, and the future. *International Journal of Research in Marketing, 28*(3), 231-247.
- Lee, H. L. (2004). The triple-A supply chain. *Harvard Business Review, 82*(10), 102-112.
- Leydesdorff, L. (2001). *The challenge of scientometrics: The development, measurement, and selforganization of scientific communications*. Parkland: Universal Publications.
- Leydesdorff, L., & Vaughan, L. (2006). Co-occurrence matrices and their applications in information science: Extending ACA to the Web environment. *Journal of the American Society for Information Science & Technology, 57*(12), 1616-1628.

- Louis, M. R. (1980). Surprise and Sense Making: What Newcomers Experience in Entering Unfamiliar Organizational Settings. *Administrative Science Quarterly*, 25(2), 226-251.
- Louis, M. R., Posner, B. Z., & Powell, G. N. (1983). The availability and helpfulness of socialization practices. *Personnel Psychology*, 36(4), 857-866.
- Maier, G. W., & Brunstein, J. C. (2001). The role of personal work goals in newcomers' job satisfaction and organizational commitment: A longitudinal analysis. *Journal of Applied Psychology*, 86(5), 1034-1042.
- McCain, K. W. (1983). The author cocitation structure of macroeconomics. *Scientometrics*, 5(5), 277-289.
- McCain, K. W. (1990). Mapping Authors in Intellectual Space: A Technical Overview. *Journal of the American Society for Information Science (1986-1998)*, 41(6), 433-443.
- McCain, K. W. (1991). Mapping Economics through the Journal Literature: An Experiment in Journal Cocitation Analysis. *Journal of the American Society for Information Science (1986-1998)*, 42(4), 290-296.
- Miller, V. D., & Jablin, F. M. (1991). Information Seeking during Organizational Entry: Influences, Tactics, and a Model of the Process. *The Academy of Management Review*, 16(1), 92-120.
- Mohr, J., & Spekman, R. (1994). Characteristics Of Partnership Success: Partnership Attributes, Communication Behavior, And Conflict Resolution Techniques. *Strategic Management Journal*, 15(2), 135-152.
- Morgeson, F. P., Delaney-Klinger, K., & Hemingway, M. A. (2005). The Importance of Job Autonomy, Cognitive Ability, and Job-Related Skill for Predicting Role Breadth and Job Performance. *Journal of Applied Psychology*, 90(2), 399-406.
- Morrison, E. W. (1993a). Longitudinal study of the effects of information seeking on newcomer socialization. *The Journal of Applied Psychology*, 78, 173-183.
- Morrison, E. W. (1993b). Newcomer Information Seeking: Exploring Types, Modes, Sources, and Outcomes. *The Academy of Management Journal*, 36(3), 557-589.

- Morrison, E. W. (1995). Information Usefulness and Acquisition During Organizational Encounter. *Management Communication Quarterly*, 9(2), 131-155.
- Morrison, E. W. (2002). Newcomers' Relationships: The Role of Social Network Ties during Socialization. *The Academy of Management Journal*, 45(6), 1149-1160.
- Myers, K. K., & Oetzel, J. G. (2003). Exploring the dimensions of organizational assimilation: Creating and validating a measure. *Communication Quarterly*, 51(4), 438-457.
- Nerur, S. P., Rasheed, A. A., & Natarajan, V. (2008). The intellectual structure of the strategic management field: an author co-citation analysis. *Strategic Management Journal*, 29(3), 319-336.
- Nicholson, N. (1984). A Theory of Work Role Transitions. *Administrative Science Quarterly*, 29(2), 172-191.
- Noma, E. (1984). Co-citation analysis and the invisible college. *Journal of the American Society for Information Science*, 35(1), 29-33.
- O'Donnell, S. W. (2000). Managing foreign subsidiaries: Agents of headquarters, or an interdependent network? *Strategic Management Journal*, 21(5), 525-548.
- Ostroff, C., & Kozlowski, S. W. J. (1992). Organizational socialization as a learning process: The role of information acquisition. *Personnel Psychology*, 45(4), 849-874.
- Persson, O., Danell, R., & Schneider, J. W. (2009). How to use Bibexcel for various types of bibliometric analysis *Celebrating Scholarly Communication Studies* (Vol. 05-S): International Society for Scientometrics and Informetrics.
- Pilkington, A. (2008). Engineering management or management of technology? A bibliometric study of IEEE TEM *International Journal of Management Science and Engineering Management*, 3(1), 63-70.
- Ployhart, R. E., & Hakel, M. D. (1998). The substantive nature of performance variability: Predicting interindividual differences in intraindividual performance. *Personnel Psychology*, 51(4), 859-901.

- Podsakoff, P. M., MacKenzie, S. B., Lee, J. Y., & Podsakoff, N. P. (2003). Common method biases in behavioral research: A critical review of the literature and recommended remedies. *Journal of Applied Psychology, 88*(5), 879-903.
- Polites, G., & Watson, R. (2009). Using Social Network Analysis to Analyze Relationships Among IS Journals. *Journal of the Association for Information Systems, 10*(8), 595-636.
- Ramos-Rodriguez, A. R., & Ruiz-Navarro, J. (2004). Changes in the intellectual structure of strategic management research: A bibliometric study of the Strategic Management Journal, 1980-2000. *Strategic Management Journal, 25*(10), 981-1004.
- Reichers, A. E. (1985). A Review And Reconceptualization Of Organizational Commitment. *Academy of Management Review, 10*(3), 465-476.
- Reichers, A. E. (1987). An Interactionist Perspective on Newcomer Socialization Rates. *Academy of Management Review, 12*(2), 278-287.
- Rollag, K., Parise, S., & Cross, R. (2005). Getting new hires up to speed quickly. *MIT Sloan Management Review, 46*(2), 35-41.
- Saks, A. M., & Ashforth, B. E. (1996). Proactive Socialization and Behavioral Self-Management. *Journal of Vocational Behavior, 48*(3), 301-323.
- Saks, A. M., & Ashforth, B. E. (1997a). Organizational Socialization: Making Sense of the Past and Present as a Prologue for the Future. *Journal of Vocational Behavior, 51*, 234-279.
- Saks, A. M., & Ashforth, B. E. (1997b). Socialization Tactics and Newcomer Information Acquisition. *International Journal of Selection and Assessment, 5*(1), 48-61.
- Scholl, R. W. (1981). Differentiating Organizational Commitment from Expectancy as a Motivating Force. *The Academy of Management Review, 6*(4), 589-599.
- Shaw, J. D., Gupta, N., & Delery, J. E. (2005). Alternative Conceptualizations of the Relationship between Voluntary Turnover and Organizational Performance. *The Academy of Management Journal, 48*(1), 50-68.
- Short, J. (2009). The Art of Writing a Review Article. *Journal of Management, 35*(6), 1312-1317.

- Small, H. (1973). Co-citation in the scientific literature: A new measure of the relationship between two documents. *Journal of the American Society for Information Science*, 24(4), 265-269.
- Sparks, J. R., & Hunt, S. D. (1998). Marketing Researcher Ethical Sensitivity: Conceptualization, Measurement, and Exploratory Investigation. *Journal of Marketing*, 62(2), 92-109.
- Taylor, M. S. (1988). Effects of College Internships on Individual Participants. *Journal of Applied Psychology*, 73(3), 393-401.
- Terry, D. J., Carey, C. J., & Callan, V. J. (2001). Employee adjustment to an organizational merger: An intergroup perspective. *Personality and Social Psychology Bulletin*, 27(3), 267-280.
- Van Maanen, J., & Schein, E. H. (1979). Toward a theory of organizational socialization. In B. M. Staw (Ed.), *Research in organizational behavior* (Vol. 1, pp. 209-264). Greenwich: JAI Press, Inc.
- Vancouver, J. B., & Warren, M. A. (2012). This is how we do research around here: The socializing methodological and measurement issues. In C. R. Wanberg (Ed.), *The Oxford Handbook of Organizational Socialization* (pp. 187-211). Oxford: Oxford University Press.
- Verbeek, A., Debackere, K., Luwel, M., & Zimmermann, E. (2002). Measuring progress and evolution in science and technology – I: The multiple uses of bibliometric indicators. *International Journal of Management Reviews*, 4(2), 179.
- Vogel, R. (2012). The Visible Colleges of Management and Organization Studies: A Bibliometric Analysis of Academic Journals. *Organization Studies*, 33(8), 1015-1043.
- Vogel, R., & Güttel, W. H. (2012). The Dynamic Capability View in Strategic Management: A Bibliometric Review. *International Journal of Management Reviews*, *In Press*.
- Wanberg, C. R., & Kammeyer-Mueller, J. D. (2000). Predictors and Outcomes of Proactivity in the Socialization Process. *Journal of Applied Psychology*, 85(3), 373-385.

- Wanberg, C. R., Welsh, E. T., & Hezlett, S. A. (2003). Mentoring research: A review and dynamic process model. *Research in personnel and human resources management*, 22, 39-124.
- Weick, K. E. (1995). *Sensemaking in Organizations*. Thousand Oaks, CA: SAGE Publications.
- Weldeck, J. H., & Myers, K. K. (2008). Organizational assimilation theory, research, and implications for multiple areas of the discipline: A state of the art review. In C. S. Beck (Ed.), *Communication Yearbook* (Vol. 31, pp. 322-367). New York: Lawrence Erlbaum.
- White, H. D. (2003). Pathfinder networks and author cocitation analysis: A remapping of paradigmatic information scientists. *Journal of the American Society for Information Science and Technology*, 54(5), 423-434.
- White, H. D. (2011). Scientific and Scholarly Networks. In P. J. Carrington & J. Scott (Eds.), *The Sage Handbook of Social Network Analysis* (pp. 271-285). London: SAGE Publications.
- White, H. D., & McCain, K. W. (1998). Visualizing a discipline: An author co-citation analysis of information science, 1972-1995. *Journal of the American Society for Information Science*, 49(4), 327-355.
- Wrzesniewski, A., & Dutton, J. E. (2001). Crafting a job: Revisioning employees as active crafters of their work. *Academy of Management Review*, 26(2), 179-201.

**TABLE 1**  
**Results of the bibliometric analysis for the socialization field in the 1980s and before**

Period	Island	Domain label	No of documents	Typical representative(s)	Key findings	Evolution of the domain in the 1990s
1980s and before	1	Seminal organizational socialization views	18	(Jones, 1986; Louis, 1980; Reichers, 1987; Van Maanen & Schein, 1979)	The main views expressed in the core cluster on organizational socialization in the 1980s touch upon organizational tactics (and their help in adjusting newcomers), socialization stage models, organizational sense-making, and lastly exploring how relations between newcomer and other social agents can be a 'conductor' of the socialization process.	Newcomer proactivity and uncertainty <i>(domain transformation)</i>
	2	Mentoring	2	(Kram, 1985)	This cluster explores how the different properties of mentorship relationships influence career progression.	Mentoring (2000s) <i>(domain transformation)</i>
	3	Organizational commitment	2	(Reichers, 1985)	The main research focus of this cluster sees commitment as a kaleidoscope of different commitments rather than a fixed picture.	- <i>(domain implosion)</i>
	4	Career planning and involvement	2	(Gould, 1979)	Career planning is in this cluster a key aspect of achieving good results in the overall career progression.	Mentoring (2000s) <i>(domain revival)</i>
	5	Methodology advancements	2	(Bagozzi & Yi, 1988)	How response bias and structural modelling can be placed in more fruitful ground also in the socialization field is the key research interest in this cluster.	Methodology advancements <i>(domain transformation)</i>
	6	Commitment view	2	(Scholl, 1981)	This cluster looks at how we can define organizational commitment and its differences with other similar constructs that could be mistakenly referred to as organizational commitment.	- <i>(domain implosion)</i>
	7	Anticipatory socialization	2	(Taylor, 1988)	The knowledge domain of this cluster examines the antecedents of organizational socialization, such as internships, which have a strong influence on later employability and self-crystallization.	- <i>(domain implosion)</i>



**TABLE 2**  
**Results of the bibliometric analysis for the socialization field in the 1990s**

Period	Island	Domain label	No of documents	Typical representative(s)	Key findings	Evolution of the domain in the 2000s
1990s	1	Newcomers' proactivity and uncertainty	20	(Chao et al., 1994; Miller & Jablin, 1991; Morrison, 1993b; Ostroff & Kozlowski, 1992)	The main cluster in this decade tries to look at the newcomer side of the socialization; thus, how uncertainty motivates newcomers to seek information, and how their proactivity can influence various outcomes. Moreover, socialization is clearly seen as a learning process, and various review studies already appear in the main cluster.	Comprehensive understanding of the field <i>(domain transformation)</i>
	2	Inter-organizational relations	3	(Mohr & Spekman, 1994; Sparks & Hunt, 1998)	The main theme of this island seems to build on different kinds of relations, mostly between organizations, e.g. inter-firm interaction could be seen as relational capital and thus influenced by the socialization process, or the socialization mechanism could increase the frequency and intensity of interactions between suppliers and buyers.	Intergroup identification <i>(domain transformation)</i>
	3	Methodological advancements	2	(Chin, 1998)	Authors in this cluster discuss methodological advances in measuring the socialization process with new methods; their focus is especially dedicated to the partial least squares method.	Methodology advancements <i>(domain transformation)</i>  Comprehensive understanding of the field <i>(domain drift)</i>
	4	Dynamics of job performance	2	(Hofmann, Jacobs, & Baratta, 1993; Ployhart & Hakel, 1998)	In this last cluster, researchers look at how time can affect the work performance, e.g. Hofmann <i>et al.</i> (1993) argued that intra-individual change (i.e. change within an individual over time) and inter-individual differences affect work performance.	Job crafting <i>(domain differentiation)</i>  Job demand resource model <i>(domain differentiation)</i>

**TABLE 3**  
**Results of the bibliometric analysis for the socialization field in the 2000s and later**

Period	Island	Domain label	No of documents	Typical representative(s)	Key findings
2000s and later	1	Comprehensive understanding of the field	20	(Ashforth, Sluss, & Saks, 2007; Bauer et al., 2007; Kim et al., 2005; Morrison, 2002; Podsakoff et al., 2003)	On the one hand, we have a lot of review studies trying to capture the big picture of organizational socialization; on the other hand, studies try to propose a comprehensive list of variables (predictors, moderators, mediators, and outcomes) that can explain the socialization process. Some new subfields emerge in the main cluster, such as the social network view and methodological issues.
	2	Organizational socialization in international and operational management	16	(Gupta & Govindarajan, 2000; Lee, 2004)	According to this perspective, interactions and organizational socialization are crucial to the successful integration and knowledge flow with subsidiary companies, or for supply chain management where, especially in eastern cultures, socialization mechanisms are fostered by managers themselves as best practice.
	3	Mentoring	3	(Allen, Eby, Poteet, Lentz, & Lima, 2004; Wanberg et al., 2003)	Researchers are interested in how mentorship could influence multiple variables like career attitudes, lower intention to leave the organization, higher pay, and faster promotion rate.
	4	Newcomers' attributes	2	(Griffin et al., 2007)	Authors suggest that newcomers' attributes, such as proactivity, are very important for outcomes such as work roles.
	5	Methodology	2	(Kozlowski & Klein, 2000)	Even if methodology is incorporated in the main cluster, it still exists as a separate island as well. The main focus of this cluster is to explore how multilevel analysis could be used in the socialization research design.
	6	Intergroup identification	2	(Terry, Carey, & Callan, 2001)	The primary focus of the intergroup identification cluster is on various merger characteristics, such as communication and status and how these characteristics can impact upon the identification process of employees towards the new organization.
	7	Job demands–resources model	2	(Bakker & Demerouti, 2007)	The effect of job demands and job resources are examined and linked to the distinct dimension of burnout. For example, the results suggest that social support catalyses the negative effect of job demand on health outcomes.
	8	Organizational assimilation index (OAI)	2	(Myers & Oetzel, 2003)	In this cluster the assimilation process is viewed as a process that happens between newcomers, other organization members, and organizations. The authors proposed an index that measures the assimilation as an interactive acceptance of newcomers into organizational settings.
	9	Job crafting	2	(Morgeson et al., 2005)	In this domain, employees take actions to shape, mould, and redefine their jobs. This is more common when they change the cognitive boundaries of their views of work. In other words, individuals have different perceptions and definitions of what their job is.

**TABLE 4**  
**Co-occurrence frequencies for the organizational socialization field**

ID	Co-citation count	First pair	Second pair
1	55	Jones G, 1986, V29, P262, Acad Manage J	Van Maanen J, 1979, V1, P209, Res Organ Behav
2	47	Louis M, 1980, V25, P226, Admin Sci Quart	Van Maanen J, 1979, V1, P209, Res Organ Behav
3	46	Jones G, 1986, V29, P262, Acad Manage J	Louis M, 1980, V25, P226, Admin Sci Quart
4	44	Ashforth B, 1996, V39, P149, Acad Manage J	Jones G, 1986, V29, P262, Acad Manage J
5	41	Morrison E, 1993, V78, P173, J Appl Psychol	Ostroff C, 1992, V45, P849, Pers Psychol
6	40	Ashforth B, 1996, V39, P149, Acad Manage J	Van Maanen J, 1979, V1, P209, Res Organ Behav
7	39	Fisher C, 1986, P101, Res Personnel Human	Ostroff C, 1992, V45, P849, Pers Psychol
8	39	Fisher C, 1986, P101, Res Personnel Human	Van Maanen J, 1979, V1, P209, Res Organ Behav
9	39	Morrison E, 1993, V78, P173, J Appl Psychol	Van Maanen J, 1979, V1, P209, Res Organ Behav
10	38	Fisher C, 1986, P101, Res Personnel Human	Jones G, 1986, V29, P262, Acad Manage J
Legend: Each pair consists of the following pattern: surname, initial, year, volume, page, journal abbreviation.			

**TABLE 5**  
**Five most cited primary and secondary journals in the organizational socialization field,**  
**broken down by decades**

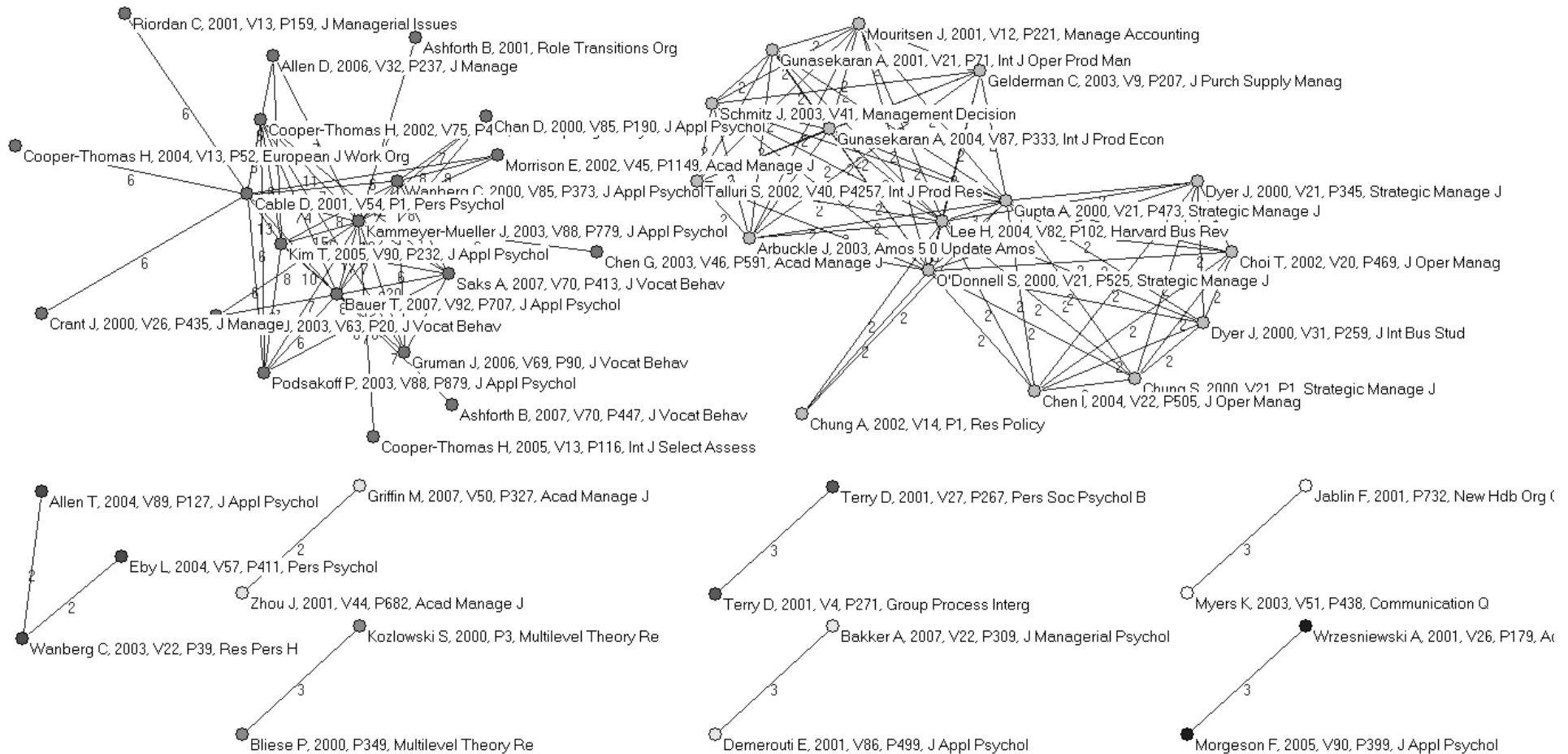
	Primary articles		Secondary (cited) Articles	
	Journal abbreviation	Frequency	Journal abbreviation	Frequency
The 1980s and before				
1	Acad Manage J	2	J Appl Psychol	15
2	Work And Stress	1	Admin Sci Quart	9
3			Psychol Bull	4
4			Acad Manage Rev	4
5			Am Psychol	3
The 1990s				
1	J Appl Psychol	8	J Appl Psychol	229
2	J Vocat Behav	5	Acad Manage J	153
3	Hum Relat	4	Acad Manage Rev	120
4	Pers Psychol	3	Admin Sci Quart	119
5	J Organ Behav	3	Pers Psychol	100
The 2000s and later				
1	J Vocat Behav	18	J Appl Psychol	941
2	J Appl Psychol	12	Acad Manage J	547
3	Acad Manage J	6	J Vocat Behav	319
4	J Occup Organ Psych	6	Acad Manage Rev	286
5	J Bus Psychol	5	Admin Sci Quart	282

**TABLE 6****Heterogeneity and homogeneity measures of the socialization field evolution, by decades**

	Island name	Heterogeneity	Homogeneity
		Standard deviation between islands based on co-citation	Average island 'height' based on co-citations
<b>The 1980s and before</b>			
<b>1</b>	Seminal organizational socialization views	<b>9.66</b>	<b>123.0</b>
<b>2</b>	Mentoring	<b>0.00</b>	<b>6.0</b>
<b>3</b>	Organizational commitment	<b>0.00</b>	<b>3.0</b>
<b>4</b>	Career planning and involvement	<b>0.00</b>	<b>3.0</b>
<b>5</b>	Methodology advancements	<b>0.00</b>	<b>3.0</b>
<b>6</b>	Commitment view	<b>0.00</b>	<b>2.0</b>
<b>7</b>	Anticipatory socialization	<b>0.00</b>	<b>2.0</b>
<b>The 1990s</b>			
<b>1</b>	Newcomers' proactivity and uncertainty	<b>10.74</b>	<b>178.1</b>
<b>2</b>	Inter-organizational relations	<b>0.00</b>	<b>6.0</b>
<b>3</b>	Methodological advancements	<b>0.00</b>	<b>2.0</b>
<b>4</b>	Dynamics of job performance	<b>0.00</b>	<b>2.0</b>
<b>The 2000s and later</b>			
<b>1</b>	Comprehensive understanding of the field	<b>3.91</b>	<b>40.3</b>
<b>2</b>	Organizational socialization in international and operational management	<b>1.02</b>	<b>18.6</b>
<b>3</b>	Mentoring	<b>0.00</b>	<b>1.3</b>
<b>4</b>	Newcomers' attributes	<b>0.00</b>	<b>2.0</b>
<b>5</b>	Methodology	<b>0.00</b>	<b>3.0</b>
<b>6</b>	Intergroup identification	<b>0.00</b>	<b>3.0</b>
<b>7</b>	Job demands–resources model	<b>0.00</b>	<b>3.0</b>
<b>8</b>	Organizational assimilation index (OAI)	<b>0.00</b>	<b>3.0</b>
<b>9</b>	Job crafting	<b>0.00</b>	<b>3.0</b>

**FIGURE 1**

**Organizational socialization field, 2000–2012**



Each node represents a cited document in the form: surname, initial, year, volume, page, journal; the line number indicate the co-citation strength – how many times both articles appeared together.

**FIGURE 2**

**Development patterns of organizational socialization research**

