GENERAL DISCUSSION

As the population ages and governments revise policies to encourage longer working lives (Bal, Kooij, & Rousseau, 2015a; Billett, 2011; Department for Business Innovation and Skills, 2011), the workforce in organizations is becoming older (Anderson, 2013; Loch, Sting, Bauer, & Mauermann, 2010). At the same time, due to increasing global competition and the accelerated rate of innovation, the workplace is becoming more and more dynamic. Given those facts, how does the aging workforce fit into the picture of a dynamic business environment? Common stereotypes often cast doubt on the ability of older employees to learn and adapt to changes. This questions older employees’ employability, their competence to continuously fulfill and acquire work for themselves (Van der Heijde & Van der Heijden, 2006).

In this dissertation, we chose a learning perspective to investigate the relationship between chronological age and employability. In Chapter 2, we proposed a model that explains the relationship between chronological age and employability via two groups of mediators: motivation and learning activities (see Figure 1).

![Research model of this dissertation.](image)

We argued that relating chronological age directly to employability, which is common in workplace stereotypes, underestimates the complexity of the relationship. First, this is because chronological age is composed of different effects, such as effects of the time or period, which cannot be
disentangled from each other (Hall, Mairesse, & Turner, 2007). Second, older workers are a very heterogeneous group (Bal, Kooij, & Rousseau, 2015b; Staudinger & Bowen, 2011), which often makes it difficult to generalize findings over the entire population of older employees. Third, individuals cannot change their chronological age. Despite that, human resource managers need to find drivers of employability upon which they can act. Therefore, in this dissertation, we studied the role of motivation and learning activities.

We proposed that employees' motivation plays a key role, as previous research suggests that the motivation to develop one's competences changes with age (Elliot & McGregor, 2001; Lang & Carstensen, 2002). We focused on two theories that have been applied in the context of an aging workforce: socioemotional selectivity theory (Carstensen, 2006) and goal orientation theory (Elliot & McGregor, 2001). First, socioemotional selectivity theory argues that people's goals change as they age. Older people focus more on achieving emotional balance than on developing their competences (Lang & Carstensen, 2002). In line with this theory, we argued that a focus on opportunities in future life enhances employability, while a focus on the limitations is negatively related to employability. Second, goal orientation theory proposes that individuals define, approach, and respond to achievement situations differently depending on a set of beliefs and attributions concerning competence (Brett & VandeWalle, 1999; Van Dierendonck & Van der Gaast, 2013). Previous work suggested that this set of beliefs and attributions changes with age: older people are more oriented towards maintaining their status (Ebner, Freund, & Baltes, 2006; Ogilvie, Rose, & Heppen, 2010) and show a distinct decrease in growth motives (Kooij, De Lange, Jansen, Kanfer, & Dikkers, 2011).

Motivation alone, however, is hardly enough to develop competences and remain employable. Therefore, we also took a learning perspective in this dissertation. We hypothesized that motivated employees are more eager to undertake formal and informal learning activities, which enhances their employability. Formal learning consists of all the learning inside structures created for that purpose, such as seminars, lectures, or workshops (CEDEFOP, 2008). Informal learning is less pre-structured, more controlled by the learner, embedded in daily working activities, and may
happen unconsciously (cf. Livingstone, 2001; Marsick & Watkins, 2001). This includes, for instance, learning by doing the job, exchanging information and feedback with others, or seeking help. Specifically, in this dissertation, we focused on informal learning from others in terms of proactive information-, feedback-, and help-seeking. We chose this approach because previous research has indicated that this social aspect of informal learning is highly important (Bamberger, 2009; Eraut, 2007).

We tested this model in four empirical studies and each study highlighted a different part of the model. In sum, the empirical chapters showed that the model explains how chronological age, motivation, and learning activities relate to employability. We learned three important points regarding employability from the considered empirical studies:

- learning activities matter,
- motivation matters, and
- chronological age affects employability indirectly.

**Learning activities matter**

We found evidence for the hypothesized positive relationship between learning activities and employability in Chapters 3 and 5. In Chapter 3, we examined the effects of chronological age and formal and informal learning activities on employability. In our sample of 780 employees of three Dutch and Austrian organizations, we found that both formal learning and informal learning from others increase employees' employability. However, each type of learning contributes to different components of employability. This study contributed further evidence for the relationships of chronological age and formal and informal learning on employability. It extended previous literature by suggesting that the different forms of learning – formal learning, information-seeking, feedback-seeking, and help-seeking – have different effects on the dimensions of employability. Therefore, a variety of learning activities is helpful in developing all the competences needed to remain employable. In Chapter 5, we found positive relationships between informal learning from others and four dimensions of employability: anticipation and optimization, personal flexibility, corporate sense, and balance. These findings are in line with previous research (Froehlich, Beausaert, Segers, & Gerken, 2014; Van der
These findings suggest that learning activities are effective means of developing the competences to fulfill, acquire, or create work, which is in line with our propositions (see Chapter 2) and earlier research that has found positive relationships between learning activities and employability (De Vos, De Hauw, & Van der Heijden, 2011; Groot & Van den Brink, 2000; Van der Heijden et al., 2009). Our finding that formal learning affected only anticipation and optimization, whereas informal learning from others also stimulated occupational expertise and personal flexibility, adds an important nuance that suggests two things. First, employees' social networks at work affect their employability. By asking for feedback, help, and information, employees connect to important sources for learning and for shaping their expertise and flexibility. Second, learning in more formal settings, such as seminars or lectures, may be especially useful for learning about new developments and trends. Subsequently, this information will help employees adapt to the requirements of the future labor market. In sum, this suggests that both forms of learning are compatible with each other when it comes to developing employability.

In Chapter 6, we focused on the aspect of learning from others using social network analysis. This approach allowed us to investigate the nuances of informal learning from others in the workplace. Previous research has established that informal learning from others enhances employees' employability. This study extended that strand of research by investigating how the demographic attributes of feedback sources make a difference. Specifically, we tested whether homophily, the tendency of employees to connect with similar co-workers, impacts the feedback-seeking network in an organization. In this analysis of 1,948 feedback-seeking relationships of 107 employees in Austria, India, and the Netherlands, we found that in some organizations, people seek more feedback from colleagues that are similar in terms of function, tenure, chronological age, or gender. This is in line with previous research arguing that homophily structures network ties (e.g., Apfelbaum, Phillips, & Richeson, 2014; McPherson, Smith-Lovin, & Cook, 2001). At the same time, however, this structuring has negative effects on employability if homophily leads to a somewhat homogeneous feedback-
seeking network at work. This can be explained by the limited scope of knowledge and information that circulates in rather homogeneous networks. Also, having ties to other groups of people potentially enriches the perspectives that can be accessed. This phenomenon was described in more detail by Granovetter's (1973) concept of "weak ties". It implies that maintaining relationships outside the core of one's work may also be beneficial for one's employability. At the same time, it stresses the need to be conscious of one's feedback sources. Hearing homogeneous feedback from a homogeneous group of people is not only limiting, but also a potential source of bias. For example, homogeneity within a network has been found to be an antecedent to groupthink (Janis, 1982; Park, 1990). The findings of the social network analyses suggest that the formation of ties between dissimilar employees may require support or encouragement. For instance, this may include assigning tasks to pairs of previously unrelated colleagues with different backgrounds or awareness training about one's social network within the workplace.

**Motivation matters**

Having found positive effects from activities of formal learning and informal learning from others, the question remained of what triggered these learning activities. Why did some employees actively pursue learning activities while others did not? We took a motivational perspective to study age-related antecedents of employability to better understand the relationship between chronological age and employability. Specifically, we investigated the relationships of future time perspective (Carstensen, 2006) and goal orientation (Elliot & McGregor, 2001) with employability (Van der Heijde & Van der Heijden, 2006). In Chapter 4, we conducted quantitative, cross-sectional survey research among 282 employees of three Dutch and Austrian organizations. Using structural equation modeling, we found that future time perspective and goal orientation strongly relate to employability. Additionally, chronological age affects employability indirectly via perceived remaining opportunities. This study contributes evidence for the relationships of chronological age, future time perspective, and goal orientation with employability. Specifically, the findings advise human resource managers to promote mastery and performance approach
orientations and an extensive future time perspective. In addition, the study expands previous knowledge by suggesting a mechanism by which chronological age affects employability indirectly. Instead of focusing on a variable that cannot be influenced, chronological age, our research hints at the potential of targeting employees' motivation.

These effects of opportunity focus, mastery approach orientation, and performance approach orientation are in line with our hypotheses. Specifically, we argued that having an opportunity focus increases the value of undertaking learning activities (Lang & Carstensen, 2002). For instance, if an employee sees the potential for being promoted, she may feel more motivated to undertake learning activities to meet the requirements to be promoted. Contrarily, if the expectation is that she will not be promoted in her remaining working life, no matter how qualified she is, there is less value ascribed to undertaking learning activities. Consequently, the employee might focus less on learning. A similar rationale may be applied to the effects of mastery and performance goal orientation. Here, the valence employees ascribe to competence matters (Janssen & Prins, 2007). Employees that aim to develop their competences (mastery approach) or, to a lesser extent, that want to demonstrate their competence to others (performance approach), are interested in engaging in learning activities.

In Chapter 5, we have found evidence that an opportunity focus does stimulate informal learning from others among the 167 Austrian consultants under consideration. We therefore extend the body of knowledge by finding a positive indirect relationship between opportunity focus and employability via informal learning from others. This finding means that employees with an opportunity focus are more likely to proactively seek feedback and help from others in the workplace. This, in turn, helps them to develop the necessary competences to stay employable. Furthermore, this study creates a link between the literature about older employees' motivation and future time perspective (De Lange, Bal, Van der Heijden, De Jong, & Schaufeli, 2011; Gegenfurtner & Vauras, 2012; Kooij, Bal, & Kanfer, 2014) and adds insight about learning for employability (e.g., Van der Heijden et al., 2009), which was previously missing. This study complements another ongoing research project investigating the
Managers who are concerned about their (older) employees' motivation may adopt a variety of strategies to support opportunity focus and approach orientations. Measures may include, for example, clarifying learning activities' utility ex-ante (Simons, Vansteenkiste, Lens, & Lacante, 2004), making the connection between work-related learning and personal goals more explicit (Phalet, Andriessen, & Lens, 2004), facilitating long-term planning and personal development plans (Beausaert, Segers, Van der Rijt, & Gijselaers, 2011; Gellert, Ziegelmann, Lippke, & Schwarzer, 2012), offering goal orientation training (Noordzij, Van Hooft, Van Mierlo, Van Dam, & Born, 2013), evaluating employees on their progress and improvement (Ames, 1992), or creating more tolerance towards errors and accepting them as a part of the learning process (Van Yperen & Orehek, 2013).

Chronological age affects employability indirectly

The results of the studies did not show consistent effects of chronological age on the dimensions of employability. However, the mediation analyses showed indirect effects of chronological age on employability via formal learning (Chapter 3) and via opportunity focus (Chapter 4). This is because chronological age relates negatively to formal learning and opportunity focus, which would otherwise have positive effects on employability. The negative link between chronological age and formal learning and opportunity focus is in line with findings from earlier research (Grima, 2011; Kanfer & Ackerman, 2004; Lang & Carstensen, 2002; Livingstone, 1999; Urwin, 2006; Van Vianen, Dalhoeven, & De Pater, 2011; Warr & Birdi, 1998; Warr, 2001; Zacher & Frese, 2009, 2011). One reason for this is that the employer is more likely to invest resources in those employees who are more likely to remain longer in the workforce, rather than those who may retire soon. We did not find such an indirect effect via informal learning from others. This can be explained by the employees' relative independence from their employers' resources when engaging in social learning activities. Activities such as asking for information, feedback, and help do not typically require the formal allocation of company resources. Therefore, the employees have more freedom to take such
developmental actions. These findings increase our understanding of how chronological age and employability are linked. While previous literature has raised criticism concerning the usage of chronological age as a predictor (Carstensen, 2006; Staudinger & Bowen, 2011), mediators between chronological age and employability have received little attention so far.

**Directions for future research**

Further research may extend the theoretical framework and the empirical evidence presented in this dissertation in various ways. We focus on three avenues for further research that we deem especially important:

- the consideration of contextual aspects other than social relationships,
- a more thorough analysis of the relevant scope of employees' feedback-seeking networks, the content of learning from others, and the process of learning from others, and
- further review of the employability concept regarding its measurement, dimensionality, and impact on the organization.

**Considering the importance of non-social contextual influences**

Previous studies show that context matters for learning (Eraut, 2007). In this dissertation, we honor that statement in two respects. First, we conducted empirical studies across a wide range of contexts – in terms of both industry (e.g., consulting, education, information technology, public sector, start-ups) and countries (Austria, The Netherlands, India). This allows for more generalizable statements than if the research had been solely conducted in homogeneous environments. At the same time, differences among the participating organizations that cannot be fully explained by our data became apparent. For example, different national, sectoral, and organizational cultures may play a role. Specifically, previous research suggests that the climates towards learning (Froehlich, Segers, & Van den Bossche, 2014; Froehlich, 2014) and towards age (Staudinger & Bowen, 2011) both play a role for (older) employees’ work-related learning. Further research could study these contextual influences in greater detail.
Second, we have focused on employees’ social context. We did so because previous research has stressed the importance of the social environment for learning (e.g., Boud & Middleton, 2003; Eraut, 2007). Therefore, we focused on informal learning from others: information-, feedback-, and help-seeking. This focus is most prevalent in Chapter 6, where we analyze employees' feedback-seeking using social network analysis. Future research may also consider other features of the context and use a broader definition of informal learning, for example by including the learning value of the tasks. This may include features such as task variety or task complexity, which have been found to affect older people's decision-making and learning (Finucane, Mertz, Slovic, & Schmidt, 2005; Nemhhard, 2000; Queen, Hess, Ennis, Dowd, & Grühn, 2012). Put differently, the conceptualization of informal learning may be extended to include more than merely learning from others. For example, in an ongoing and related research project, we investigate the role of task variety (Withey, Daft, & Cooper, 1983) and the learning value of the job (Van der Heijden et al., 2009) for employees' employability in Dutch and German organizations (Kremer, Froehlich, & Segers, manuscript in preparation).

Learning from others: From whom, what, and how?

Future research can extend our findings in three important directions. First, the scope of the network may be extended. In this dissertation, we focused on the role of one's colleagues and supervisors for learning. The rationale behind this was that this group of people is more acquainted with the topics at work and will therefore be able to provide relevant and useful information, feedback, and help. We assume that members of this group have, on average, the greatest impact. However, people external to this group may also be a valuable source for learning. For instance, friends that work at different organizations may be helpful for discovering new trends (anticipation & optimization) or information may be exchanged in communities of practice that do not match the formal structure of the organization (Rehm, Gijselaers, & Segers, 2014). Also, contacts through sports clubs, family members, or charities may influence one's employability. Now that we have elaborated on the role of colleagues and supervisors for learning in terms of employability, we may extend this
focus to also include other people. In a similar vein, future research may consider aspects other than homophily that shape feedback-seeking from others. In this research, we have exclusively focused on demographic aspects, which have been found to be very influential in previous research (McPherson et al., 2001). Nevertheless, other concepts such as willingness to share (Wiese et al., 2011) or similarity in terms of values (Curry & Kenny, 1974) may be explored. For instance, in an ongoing longitudinal research project, we investigate the role of similar personal feedback preferences (Frieling, Froehlich, & Van den Bossche, manuscript in preparation).

Second, future research may investigate the content of information-, feedback-, and help-seeking instances. This is important, as previous research has found that, at times, feedback-seeking actually reduces performance (Kluger & DeNisi, 1996, 1998). Future research, therefore, also needs to consider what is learned from others. This calls for a more qualitative approach to study informal learning from others to complement the findings of this dissertation.

Third, the process of learning could be studied more closely. For instance, the learning strategies (Froehlich, Segers, et al., 2014) employed by the employees could be researched to give additional insight into how to facilitate learning for employability. A recent study has researched the relationship between chronological age, approaches to learning, and a variety of outcomes, such as job performance and skills development (Froehlich, 2014). Similar to the theme of this dissertation, this study has found that the relationship between chronological age and learning outcomes is partially mediated by learning approaches. Therefore, future research may study this aspect of the learning process and how it relates to employability in greater detail.

**Employability: Reconsidering measurement, dimensionality, and organizational benefits**

Future research may consider three themes about employability. First, the conceptualization and measurement of employability as self-perceived employability requires reflection. In this dissertation, we have used self-rated instruments to gauge employability. This is in line with previous studies, which suggest that perceived employability is more
important than potential employers' rating. After all, employees act based on their own perceptions (Dries, Forrier, De Vos, & Pepermans, 2014). The importance of self-appraised employability can be inferred from Lazarus and Folkman's (1984) transactional stress theory (Kinnunen, Mäkikangas, Mauno, Siponen, & Nätti, 2011). This theory postulates that stress arises when people perceive that they cannot cope with the environment's demands (Lazarus & Folkman, 1987). Consequently, employees who perceive themselves as highly employable feel less threatened by the environment and experience less strain (Berntson & Marklund, 2007). Nevertheless, research has found that employees appraise their employability differently than their supervisors do (Van der Heijden, Gorgievski, & De Lange, 2015). The employer's perspective can hardly be ignored, since decisions made by the employer, such as lay-offs or promotions, can affect employees' perception of their own employability. Therefore, future research may consider multiple sources to estimate employee's employability. In a different vein, it needs to be recognized that self-perceived employability may not only be improved by developmental measures that improve employees' competences, but also by raising awareness about the competences that employees already possess and the opportunities they provide. Further research may investigate how interventions that allow employees to take stock of their competences and to assess their opportunities on the labor market affect their self-perceived employability.

Second, the dimensions of employability and their interrelations need to be considered. Throughout this dissertation, we included multiple dimensions of employability for each empirical study, for which we expected similar results. For instance, in Chapter 3, we hypothesized positive effects of informal learning from others on occupational expertise, anticipation and optimization, and personal flexibility. We did so because previous research offers little guidance concerning different effects of learning on different dimensions of employability. However, some of our studies found different effects for different dimensions of employability. This hints at potential differences between the dimensions that have not yet been empirically explored. Dependencies between the dimensions need to be recognized. For instance, a certain degree of job-specific occupational expertise may be
needed to assess which upcoming trends are relevant and will have an impact (anticipation and optimization). Also, a high level of occupational expertise may make it easier to adjust to change (personal flexibility) or serve the organization's goals and exert control (corporate sense). Preliminary findings of a recent investigation using Rasch analysis (Froehlich, Liu, & Van der Heijden, 2015) support this view. The evidence suggests that occupational expertise is needed even for a low level of employability, while the more generic competences, such as anticipation and optimization and corporate sense, become more important for employees with higher levels of employability.

Organizations that offer developmental environments for employability are potentially more attractive for employees. However, more direct positive effects of employability on the bottom have also been suggested by Van der Heijde and Van der Heijden (2006). For example, a workforce that has sufficient occupational expertise and a good grasp of current trends and developments may be important for producing innovations. For instance, two recent studies suggest that employability positively enhances innovative work behavior (Froehlich, Messmann, Le Van, Beausaert, & Segers, 2015; Stoffers, Van der Heijden, & Notelaers, 2014), which encompasses all activities to develop innovations (Messmann & Mulder, 2012). In sum, future research may consider the organizational outcomes of an employable workforce more explicitly.
REFERENCES


Granovetter, M. S. (1973). The Strength of Weak Ties. *American Journal of Sociology*, 78(6), 1360–1380. doi:10.1086/225469


Van der Klink, M. R., Van der Heijden, B. I. J. M., Boon, J., & Williams van Rooij, S. (2014). Exploring the contribution of formal and informal learning to


Zacher, H., & Frese, M. (2011). Maintaining a focus on opportunities at work: The interplay between age, job complexity, and the use of selection,