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THE MODEL OF SELECTION, OPTIMIZATION, COMPENSATION

Abstract

This chapter provides a general overview of the model of selection, optimization, and compensation (SOC model), a lifespan developmental theory that has increased in popularity in organizational psychology in the past decades. The goals of this chapter are to provide an overview of the SOC model and review key findings on SOC strategy use both in general and in the work setting. The focus will be, first, on introducing the SOC model as a model of successful life management and, second, on demonstrating how the model has been adapted to the work setting. For each of these contexts, we review research findings on central assumptions regarding the age trajectory and benefits of SOC strategy use. The discussion section elaborates on possible shortcomings of the SOC model and provides suggestions for future research.
Most people have goals in their lives, be it major life goals such as wanting to make the world a better place, or minor goals such as getting a current work project done in time. A goal that is known to most of you reading this chapter, is to be successful in academia. To achieve this goal as a student, one may first aim at successfully obtaining a university degree, then getting into a good graduate school in order to obtain a PhD, doing good research that will be published in high-impact journals, and also being a good lecturer and mentor to students. Obviously, working toward a career goal such as being a successful academic may not always be a smooth process, and obstacles can arise along the way. University grades may not suffice for admission to graduate school, or the birth of a child may reduce the energy and time that were previously available to work on a PhD project. In cases like this, the person may choose to abandon the goal to become an academic and pursue a different career (as you will see later on, this process is termed “loss-based selection” in the model of Selection, Optimization, and Compensation or in short: the SOC model), but the young scientist can also look for ways to overcome these obstacles. This may include applying for graduate school again the following year (this kind of persistence is referred to as “optimization” in the SOC model), or asking the partner to scale down work hours in order to cover more childcare hours (called “compensation”).

This example is a demonstration of the use of (loss-based) selection, optimization, and compensation to reach an important personal and developmental goal. The SOC model proposes that individuals can achieve and maintain well-being and effective functioning throughout the lifespan by engaging in the strategies of selection (selecting and prioritizing goals), optimization (acquiring and applying means for goal achievement), and compensation (increasing effort or recruiting alternative means in the face of losses in the service of maintenance of functioning; Freund, 2008; Freund & Baltes, 2007).

The utility of these strategies becomes especially salient in situations characterized by a misfit between goals, resources, and demands. Goals are anticipated states that a person tries to approach or avoid (Austin & Vancouver, 1996), and can arise either from personal preferences or (age-graded) norms or demands placed on the person by the environment.
(Freund, 2007). Based on the conservation of resources theory (Hobfoll, 1989; Hobfoll, Halbesleben, Neveu, & Westman, 2018), resources are means that are required for goal achievement and are entities that people value and strive to gain, protect, and foster. In the example above, pursuing a PhD and caring for a child compete for the same resources (e.g., time and energy), creating a mismatch between goals and resources. Demands refer to those physical, social, or occupational aspects that require sustained effort and investment of means (Hobfoll, 1989). If the demands are not merely challenges but overtax the available resources, they may be perceived as threatening, leading to stress reactions (Lazarus & Folkman, 1984). For instance, the pressure to publish high-impact articles within the limited time as a graduate student can be a demand that might overburden the means of a student who is just beginning to acquire the necessary knowledge and skills to conduct and publish research. If this pressure is high and persistent, it may lead to prolonged experiences of strain and the related adverse consequences that can affect one’s physical and/or psychological well-being (Ganster & Rosen, 2013). The SOC model further states that a mismatch between goals, resources, and demands is tackled best by engaging in the strategies of selection, optimization, and compensation.

The SOC model was originally conceptualized as a meta-theory of successful aging that can be applied to various levels of human development and different contexts and to successful development across the entire lifespan (P. B. Baltes, 1997; P. B. Baltes & Baltes, 1990). Successful development is generally defined as the maximization of gains (in terms of making the most of one’s talents and opportunities) and the minimization of losses (preventing decline in abilities or loss of opportunities). Within an action-theoretical framework (Freund & Baltes, 2000) the SOC model denotes processes of developing and setting goals (i.e., selection), pursuing goals (i.e., optimization), and maintaining goal pursuit in the face of losses (i.e., compensation; for an overview see Table 1). As such, it can be seen as a general model of how people set, pursue, and maintain goals arising from internal preferences and external demands that can also be applied to work settings. The emphasis is on the active role of the individual in maintaining a good fit between the environment and personal goals (e.g., recruiting social support to remain mobile when physical strengths declines).
The goals of this chapter are to provide an overview of the SOC model and review key findings on the antecedents and consequences of SOC strategy use both from the general lifespan literature and the newly emerging literature on aging at work. In the first part of this chapter, we describe the theoretical background and operationalization of SOC strategies and briefly review the general (i.e. non-work related) SOC and aging literature. In the second part of this chapter, we draw a link between SOC and theories of successful aging. The concept of successful aging points at the heterogeneity of aging trajectories in different domains of functioning, emphasizing the fact that some people age more successfully than others. In the third part of the chapter, we elaborate on the theoretical background of SOC strategies at work, followed by a review of the empirical evidence. In this section, we also investigate the question whether the benefits of SOC strategy use are higher for older than young workers, as is often assumed. Finally, we critically discuss some limitations of the current literature on SOC strategy use at work such as the general measurement of SOC, the lack of a work-specific SOC instrument, and the distinction between long-term SOC use and SOC use over short periods of time, and outline directions for further inquiry.

### The SOC Model

#### Overview of the Model

From a lifespan perspective, SOC processes hold special significance in older age because this is the time when resources are increasingly limited (e.g., a more limited future or less energy to pursue one’s goals) and losses (e.g., physical and cognitive decline) are more ubiquitous (P. B Baltes, 1997; see also Hobfoll et al., 2018). However, it is important to note that SOC processes are posited to be fundamental to development throughout the entire lifespan. On a very general level, *selection* refers to constraining the potential range of alternative options so as to channel development. Selection allows specialization and to focus resources on a restricted range of functional domains. *Optimization* entails the acquisition and investment of goal relevant means in order to maximize gains in the selected domains.
Finally, *compensation* refers to processes that are aimed at counteracting internal or external losses that threaten the maintenance of functioning.

Freund and Baltes (1999) adopted an action-theoretical approach to SOC by placing the concept of goals in the center of the model. Based on the motivational literature, they distinguished between goal setting and goal pursuit on the one hand, and goals aiming at gains versus losses on the other (Freund, Li, & Baltes, 1999). Crossing of these two dimensions results in the distinction between: (1) Elective selection (i.e., development of and commitment to a subset of goals), (2) loss-based selection (i.e., change of goal hierarchy or adaptation of goal standards due to losses), (3) optimization (i.e., acquisition and investment of goal-relevant means in order to attain gains), and (4) compensation (i.e., intensification or substitution of means in order to maintain goal-relevant functioning).

Initial studies of SOC in the action-theoretical framework focused on relatively long-term goals that people pursue over weeks, months, or even years (such as the career goal mentioned in the introduction; e.g., Wiese, Freund, & Baltes, 2000). However, goals also structure daily life, and some goals concern desired states that people want to approach or avoid in the very short term (e.g., to finish the revision of a manuscript). In light of this, several recent studies have examined daily fluctuations in SOC strategy use (Knecht & Freund, 2017; Venz et al., 2018; Yeung & Fung, 2009; Zacher et al., 2015). In the following, we define each of the SOC processes in detail, outlining how they apply to long-term, developmental, and to short-term, daily goals. A summary of the following section is depicted in Table 1.

**Elective selection**

In general, selection refers to the choice and prioritization of some goals over others and comprises two sub-dimensions, elective selection and loss-based selection. Elective selection is defined as developing a goal hierarchy, based on importance, urgency, or preference. A major component of elective selection is the delineation of a subset of potential goals out of the many options one has (Freund & Baltes, 2000). An example of elective selection is someone who decides to primarily focus on the career until he or she has achieved a certain career level and only then starts focusing on a family – rather than pursuing both goals simultaneously. At the daily level,
a person who has a to-do list that comprises daily tasks according to their importance, is engaging in daily elective selection.

Loss-based selection
Loss-based selection occurs when engaging in compensatory behavior is too costly and setting new goals would be the most adaptive response (Freund & Baltes, 2000a). Loss-based selection is the result of a loss in external or internal resources that cannot be compensated through the intensification of existing means or the acquisition of new ones. Loss-based selection entails the adaptation of standards to new circumstances, reorganization of one’s goal hierarchy, and searching for new goals that are attainable despite the experience of loss. For instance, a person who initially wanted to become a professional football player but suffers from an injury, could focus on being a football trainer instead. At the daily level, if the to-do list from the previous example entails working with a colleague on a joint project, but the colleague pulls out, one might scale down the project in a way that one can get it done alone.

Optimization
Optimization comprises the acquisition, refinement, and use of relevant means to achieve selected goals (Freund & Baltes, 2000a). Optimization involves persistence in goal pursuit even when facing difficulties along the way (Freund, Li, & Baltes, 1999). Optimization further entails the allocation of important resources such as time, effort, or attention to goal relevant means. For example, when the goal is to start a new job in a country where one does not yet speak the language fluently, one could take a language course, and invest the time and effort in order to profit from the course and learn the new language. At the daily level, if one has to prepare a presentation for work, optimization would entail investing time and effort into the presentation until it is completed.

Compensation
Compensation refers to processes that are geared towards the maintenance of functioning when facing or anticipating losses. When the means to achieve a goal are no longer available, one can still effectively pursue
one’s goals by switching to other means. Compensation usually requires the acquisition of new means or the use of unused means or skills. The substitution of means can also entail using external help like technological aids or instrumental social support. An older nurse who can no longer lift overweight patients may ask a young co-worker for help when such situations arise. An example of successful compensation at the daily level would be to ask another colleague to join the project so as to be able to maintain its original scope.

**Measurement of SOC**

After the SOC model was introduced, Abraham and Hansson (1995) were the first researchers to develop a questionnaire that captures SOC behavior. The 24-item instrument measures SOC in the occupational setting and is aimed at indicating experienced developmental losses that might affect work performance. In their scale, selection items focus on narrowing the scope of work goals, optimization items reflect strategies that employees engage in to increase their work performance, and compensation is defined as impression management strategies that people use to minimize the negative effects of age related losses. Despite good reliabilities, the instrument has not been used by any other researchers in the past decades.

In research to date, SOC use has mostly been investigated from an action-theoretical perspective using self-reports. The SOC questionnaire that has primarily been – and is currently still being – used, was developed and validated by P. B. Baltes, Baltes, Freund, and Lang (1999) using an age-heterogeneous sample of 478 participants. The original questionnaire consists of 48 items covering the four processes of elective selection, loss-based selection, optimization, and compensation. The questionnaire can be either framed with a domain-general instruction (“We are very interested in how you go about managing your life in general”) or with domain-specific instructions (e.g., “We are very interested in learning about how you go about accomplishing things in the domain of work”).

Each item is presented with a forced choice response scale and consists of two equally attractive response options, one of them illustrating a SOC strategy and the other one a non-SOC strategy, also called the distractor item. Respondents are instructed to first pick the response (SOC-related or
### Table 1. Summary of SOC Strategies and Examples

<table>
<thead>
<tr>
<th>Sample strategies</th>
<th>Elective Selection</th>
<th>Loss-based selection</th>
<th>Optimization</th>
<th>Compensation</th>
</tr>
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<tbody>
<tr>
<td></td>
<td>• Choosing some goals over others</td>
<td>• Adapting standards to new circumstances</td>
<td>• Acquiring, refining, and using relevant means to achieve selected goals</td>
<td>• Using other means than before</td>
</tr>
<tr>
<td></td>
<td>• Prioritizing goals</td>
<td>• Reorganizing one’s goal hierarchy</td>
<td>• Showing persistence in goal pursuit</td>
<td>• Acquiring new means</td>
</tr>
<tr>
<td></td>
<td>• Developing a goal hierarchy</td>
<td>• Searching for new goals that are attainable despite the experienced loss</td>
<td>• Allocating important resources such as time, effort, or attention to goal</td>
<td>• Using so far unused means or skills</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>relevant means</td>
<td>• Using external help like technological aids or instrumental social support</td>
</tr>
<tr>
<td>Example of general SOC</td>
<td>Deciding to focus on the career first before starting a family, rather than both</td>
<td>A professional football player who suffers from an injury focuses on being a football</td>
<td>Taking a language course, and investing the time and effort into learning the</td>
<td>A nurse who can no longer meet physical demands to lift patients asks a younger</td>
</tr>
<tr>
<td></td>
<td>simultaneously</td>
<td>trainer instead</td>
<td>new language well</td>
<td>colleague for help</td>
</tr>
<tr>
<td>Example of daily SOC</td>
<td>Making a to-do list comprising daily tasks according to importance and relevance</td>
<td>If the to-do list entails working with a colleague on a joint project, but the colleague</td>
<td>Investing time and effort into a daily work project until it is completed</td>
<td>Asking another colleague to join the project so as to be able to maintain its</td>
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<td></td>
<td></td>
<td>pulls out, scale down the project in a way that one can get it done alone</td>
<td></td>
<td>original scope</td>
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**Note.** Sample strategies are based on Freund and Baltes (2000). The examples of general and daily SOC correspond to the examples on pages 26 - 28.
distractor) that resembles their own behavior best. In some versions of the questionnaire (e.g., Wiese et al., 2000), participants are then prompted to indicate the degree of similarity between the chosen option and their own behavior on a 4-point scale ranging from *a little* to *exactly*. A sample item for optimization is: “I keep trying until I succeed at a goal.” vs. “I don’t keep trying very long when I don’t succeed right away at a goal.” (distractor). A preference for the distractor item is scored as 0 and an aggregate score is formed across all SOC responses. With Cronbach’s alphas of the similarity ratings ranging from .61 to .65 for the four subscales, the internal consistency of this questionnaire is rather low. However, Freund and Baltes (2002) have argued that the low internal consistency is due to the fact that the items reflect a variety of behaviors as indicators of each of the SOC processes, and thus adequately reflect the breadth of the constructs. This idea is also consistent with the notion of “orchestration” between the strategies (P. B. Baltes, 1997). Considering SOC as a set of several strategies implies that the strategies should be considered as a whole. In fact, when combining the four subscales into a SOC composite index, the Cronbach’s alpha is satisfactory with .81 (P. B. Baltes et al., 1999).

For practical reasons, the 48-item questionnaire is often shortened to 12 (e.g., Bajor & Baltes, 2003) or sometimes even 9 items (e.g., Wiese et al., 2000). In the 9-item version, elective and loss-based selection are measured with 3 items as one dimension. The 12-item questionnaire assesses SOC with three items per dimension with alphas ranging from .79 to .87. The factor structure of the 12-item version reveals that optimization and compensation partly load on the same factor. This is not surprising, given the fact that both strategies aim at goal pursuit but are initiated by different processes, i.e., desired strategy and means vs. strategies and means that are still possible given an experienced loss. Some researchers have adjusted the original response format in order to reduce cognitive load on respondents by omitting the distractor item and only presenting a SOC strategy illustration along with a Likert-scale to rate the frequency of strategy use (e.g., Zacher & Frese, 2011).

Müller and colleagues (2013) expressed concerns about the applicability of the SOC questionnaire to physically demanding work contexts. The authors developed a SOC in nursing scale that is based on
structured interviews with nurses. The SOC-in-Nursing-Scale assesses SOC with nine items that load on three factors. This instrument is so far the only instrument that can be applied to non-white collar jobs.

Besides self-report measures, some studies have investigated SOC strategy use with behavioral measures. Most of these studies investigate age-differential goal orientation and the reasons for these differences. Study designs mostly entail the pursuit of competing tasks, for instance walking and memorizing at the same time (Li, Lindenberger, Freund, & Baltes, 2001), the manipulation of available resources (Ebner, Freund, & Baltes, 2006), or the behavioral engagement in optimization vs. compensation behavior (Freund, 2006). Freund and Baltes (2002b) also introduced a more objective way to test the adaptiveness of SOC strategies as life management strategies in a study on proverbs. The authors asked participants to match proverbs with sentence stems that are representative of life management situations. The proverbs either reflected a SOC strategy or were unrelated to SOC strategies. The goal of this paradigm is to see whether individuals prefer a SOC-related proverb in situations where life management is required over a non-SOC proverb. While this approach could be seen as a more objective way of measuring SOC without the problems that are associated with self-report measures, it has so far only been applied to one set of studies (Freund & Baltes, 2002b).

SOC and Successful Aging

SOC and Successful Aging: Theoretical Background

The question of what successful aging is and how it can be achieved has sparked much research attention and debate (Katz & Calasanti, 2015; Rowe & Kahn, 2015). At first sight, the concept of successful aging seems like an oxymoron: Given the many negative changes that accompany aging, especially in the cognitive, physical, and social domains, it seems counterintuitive to equate aging with success (Freund, Nikitin, & Riediger, 2012). Yet, although getting older comes with some negative changes and challenges for nearly everyone, it is clear that some people age more gracefully and happily than others. “Successful agers” appear to be little
affected by declining abilities and health, may experience high subjective well-being despite declining health or ensuing disabilities, or even benefit from growing life-experiences, emotional stability, or wisdom. Based on this observation, Rowe and Kahn (1987) noted that it is useful to distinguish successful (above-average) aging from usual (average) aging and unsuccessful (below-average) aging.

How can successful aging best be conceptualized? One approach to successful aging is to define criteria of success. Researchers adopting this outcome-oriented approach have distinguished between criteria that are subjective (e.g. increased levels of hedonic and psychological well-being with age) versus objective (maintenance of high cognitive and physical functioning), general (comprising all functional domains) versus domain-specific (high well-being even in the presence of chronic disease), and static (has the person achieved financial security) versus dynamic (will the person be financially secure now and in the future; see Freund, Nikitin, & Riediger, 2012 for a review). Although specific criteria of successful aging are subject to cultural and personal values, at a general level, researchers agree that successful aging entails maximizing gains and minimizing losses as people move through life and into the period of old age (P. B. Baltes, 1987).

Another approach to successful aging is to specify processes of aging successfully, in other words, how people can go about maximizing gains and minimizing losses throughout life. The SOC model has been developed in this spirit. It specifies selection, optimization, and compensation as strategies that – if enacted successfully – help people make the most of their talents and opportunities, and to navigate around obstacles arising from blocked opportunities and declining abilities with age (P. B. Baltes & Baltes, 1990).

Importantly, the SOC model proposes that these strategies are most beneficial for resource-poor individuals, or more broadly, in situations in which there is a high degree of mismatch between goals and preferences on the one hand, and available resources or means for goal achievement on the other hand. Although people can face a lack or loss of resources at any time in their life, a fundamental characteristic of lifespan development is that the prevalence of losses increases with age, leading to an increasingly
unfavorable ratio of gains to losses (P. B. Baltes, 1987). Consequently, a key prediction of the SOC model is that SOC strategies are more beneficial for older (i.e. resource-poor) as compared to young (resource-rich) adults.

A second key prediction of the SOC model is that the use of SOC strategies is itself age-related. It is likely that individuals acquire and strengthen their use of SOC strategies as they gain experiences with life-management over time and across various situations. Specifically, through learning and practice in developing, committing to, reshaping, pursuing, and maintaining goals, SOC strategy use will be refined from early to middle adulthood and therefore SOC use should increase from young to middle adulthood (Freund & Baltes, 2002). However, SOC strategy use is also resource consuming. As elaborated above, resources tend to decline with age, leading to lower SOC use in late adulthood. Moreover, changes in resource availability should precede changes in SOC strategy use (Knecht & Freund, 2017).

It should be noted that adequate testing of these two key predictions, i.e., the increasing importance of SOC use with age and the curvilinear age trajectory of SOC use, requires longitudinal research across many years. Unfortunately, such data is not currently available, although some studies regarding SOC strategy use and aging have used longitudinal paradigms across shorter time periods ranging from several months (e.g., Riediger & Freund, 2006) to several years (e.g., Lang, Rieckmann, & Baltes, 2002). Therefore, causality can often not be assumed and results should be interpreted accordingly.

**SOC and Successful Aging: Review of Empirical Evidence**

Given the central role of age-associated processes in the SOC model, many studies regarding SOC strategy use have investigated the role of age. These studies focused mainly on age differences in resource allocation and subsequent changes in goal orientation (e.g., Freund & Baltes, 1998; Opitz, Gross, & Urry, 2012; Zacher & Frese, 2011). Some studies have also focused on subjective well-being as an outcome associated with SOC use (e.g., Chou & Chi, 2002; Jopp & Smith, 2006; Teshale & Lachman, 2016). In the following, we first present results that clarify the relationship between age, resource availability, and SOC strategy use. We then report
studies that test the assumption that SOC strategy use leads to beneficial functioning and well-being outcomes, especially at higher age.

**Age differences in SOC strategy use**

Freund and Baltes (2002) tested the prediction that SOC strategy use increases from young to middle adulthood and declines from middle adulthood to older age due to changes in resource availability. In a cross-sectional sample of individuals between the ages of 18 to 89 years the authors showed that use of most SOC strategies peaks in middle adulthood, hence during the ages of 43 to 67. An exception was elective selection which was positively correlated with age, with highest levels reported by the oldest participants. The results regarding loss-based selection, optimization, and compensation are consistent with the assumption that resource availability is a prerequisite of SOC use and that SOC use rises and falls with the availability of resources across adulthood. The divergent association between age and elective selection, in contrast, may be attributed to the need to explore different paths and pursue different goals in young adulthood. With increasing age, people tend to have selected and prioritized their life paths, which results in clearer goal hierarchies, thus leading to increased elective selection.

Another study by Riediger and Freund (2006) looked more specifically at age differences in two facets of motivational selectivity, restricting the number of goals and focusing on goals with similar contents. The authors assessed motivational selectivity at baseline while goal pursuit was assessed three months later. Results show that the facet of focusing was associated with higher goal pursuit three months later, irrespective of age. Furthermore, results suggest that motivational selectivity indeed changes with higher age in a way that older individuals are more restrictive in the number of goals they select, and in the content of those goals. Goals in later life stages are more similar to each other, hence, they mutually facilitate each other. Additionally, those goals are more closely related to life domains that individuals render important for their life satisfaction. The authors conclude that this mechanism facilitates high levels of functioning in older adults, despite decreasing resources.

Ebner, Freund, and Baltes (2006) investigated resource allocation
and goal selection in a series of studies where they compared individuals’ goals in the cognitive domain (e.g. improving memory ability), physical functioning (e.g. improving endurance), and goals from any life domain, between young and older adults. They further compared self-indicated goal orientation toward growth versus toward maintenance or loss-prevention. Results revealed that younger adults’ goals are oriented more toward growth while older adults’ goals are orientated more toward maintenance and loss-prevention. Furthermore, younger adults’ loss-prevention orientation was negatively associated with subjective well-being while older adults’ orientation toward maintenance was positively associated with subjective well-being. These studies show that not only goal orientation but also the degree of satisfaction with the goal orientation differ by age.

In a series of experiments, Freund (2006) investigated age-differential behavioral consequences of pursuing optimization versus compensation goals. In one condition, she gave younger and older adults the same simple sensori-motor task framed as the goal to increase performance (i.e., optimization). In a subsequent condition, she induced a loss, instructing participants to get back to their prior level of performance (i.e., compensation). As expected, younger adults were more persistent in the optimization condition, whereas older adults worked longer on the task in the compensation condition. These results show that adults of different ages do not only report to differ in their engagement in SOC strategies, but they also differ in behavioral indicators of SOC strategy use.

Resource availability as underlying mechanism for age differences
Studies using a dual-task paradigm are a fruitful way to experimentally manipulate resource availability and explore the resulting change in goal orientation. Li and colleagues (2001) tested dual task costs for younger and older adults when performing a walking task while memorizing words at the same time. The study showed that dual task costs were higher for older adults in the memory compared to the walking domain, indicating that they prioritized the maintenance of their balance in the walking task over their memory performance. Moreover, they also used compensatory aids (a handrail for the balance vs. getting additional time for the memory
task) more than young adults when the tasks were made more challenging. The authors infer that older adults prioritize the more basic and important task of maintaining one’s balance over the relatively less essential task of memorizing words. These results demonstrate that older and younger adults select different goals depending on how essential they are, and invest differentially in the use of compensatory behaviors.

In the study described earlier, Ebner, Freund, and Baltes (2006) not only investigated age group differences in goal orientation but also manipulated the role of expected resource demands for goal achievement. A manipulation of resource demands allows for an indirect test of the causal role of resource availability in selection processes, because it changes the relative amount of resources available for successful goal achievement. More specifically, participants were asked to compose a training program (in one study a cognitive training, in another study a physical training) by choosing modules that aimed at either increasing or maintaining performance. In one condition, no mention was made of the resource intensity of the tasks, assuming that older adults generally orient their goals towards maintenance, whereas younger adults orient goals towards gains. In another condition, participants were told that improving performance was resource consuming. As expected, older adults selected more maintenance than improvement modules, while the opposite was true for younger adults. Supporting the hypothesis that these age differences are driven by age-differential expectations about the availability of resources, when pointing to the higher resource costs of optimization, younger adults also selected more maintenance training modules. In other words, when restricting resources, young adults “behaved” like the older adults.

Overall, these studies underscore the assumption that age group differences in goal orientation are driven by differences in resource availability. Interestingly, it is not only the actual resources that one has but also the expected resource costs that influence goal orientation.

There are also time-lagged studies that support the link between resources and SOC strategy use. For instance, Knecht and Freund (2017) conducted an intensive experience-sampling study with middle-aged, working adults who experienced goal conflict or goal facilitation between goals in different life domains such as work, family, or leisure.
The results demonstrate that goal conflict increased the subsequent use of compensation and optimization, while goal facilitation decreased the subsequent use of loss-based selection and compensation. Unexpectedly, there were no significant relations of momentary SOC use to subsequent experiences of goal conflict or facilitation. The authors conclude that SOC strategy use is a response to current conflicting goal demands rather than an antecedent of inter-goal relations.

In a longitudinal study, it was shown that the availability of resources facilitates the use of SOC strategies over a four-year period (Lang et al., 2002). Individuals aged between 70 and 103 years who showed greater availability of sensorimotor, cognitive, personality, and social resources, showed more SOC use on a daily basis and were less likely to have passed away over the four-year period. The authors identified SOC strategies through interviews with older individuals. Activities such as increase in contact with family members over a four-year period or decrease in diversity of daily activities were interpreted as successful selection. An increase in the variability of time invested across all reported activities was interpreted as optimization. Compensation was interpreted as an increase of number and duration of sleep phases. Again, results indicate that the use of SOC strategies requires resources and that the engagement in SOC strategies is associated with successful aging outcomes, such as survival over a four-year period.

Consequences of SOC strategy use and the moderating role of age

All in all, the studies presented so far are in line with SOC theory, in particular the prediction that SOC strategy use is age-related and related to resource availability (for an overview see Freund, 2008). There is more evidence for goal orientation as an aspect of selection, suggesting that a (relative) shortage of available resources leads people to select less resource-demanding goals (maintenance instead of growth goals). In the following we turn to the question whether these shifts in SOC processes are related to successful development.

Studies mostly confirm the assumption that SOC use in higher ages leads to greater well-being (e.g., Chou & Chi, 2001, 2002; Jopp & Smith, 2006). For instance, Jopp and Smith (2006) demonstrated that SOC
strategies, used individually and in combination, counteract the negative effects of low demographic (e.g., years of formal education), cognitive (e.g., perceptual speed), health (e.g., balance), and social resources (e.g., number of social partners) on well-being and satisfaction with age. Specifically, in a study with young-old individuals (roughly 70-80 years old) and old-old individuals (roughly 80-90 years old), aging satisfaction was higher when more resources were available and SOC strategy use independently contributed to that satisfaction, but only in the young-old group. For old-old individuals, it was higher resource availability that significantly contributed to aging satisfaction; SOC strategy use only made a difference for old-old individuals who reported low availability of resources. Hence, for old-old individuals, the availability of resources appears to be the primary contributor to satisfaction; only if this is not given does SOC strategy use lead to an increase in life satisfaction. Pointing to the generalizability of these findings, Chou and Chi (2002) found in a study with older Chinese participants that SOC strategy use buffered the negative relationship between financial strain on life satisfaction.

In an attempt to assess SOC strategy use at the daily level, Teshale and Lachman (2016) investigated the link between SOC and happiness over a period of seven days. On days when older (60+ years) and middle-aged (40-59 year) adults used more SOC strategies they also reported greater daily happiness. In turn, lower happiness was associated with greater subsequent SOC strategy use. Again, these results indicate that SOC strategy use is a predictor of successful aging outcomes and at the same time helps to restore a positive state, happiness, when that state is endangered.

All in all, studies support the idea that there is an interplay between resources, SOC use, and indicators of successful aging, which in turn leads to greater well-being and effectiveness. There is support for the proposition that the initiation for this chain differs by age, and that older and younger adults choose goals differently. At the same time, SOC use is associated with greater life satisfaction especially for older individuals. In the following, we apply the SOC model to the work context and investigate which of these findings hold in this context.
SOC in the Work Context

SOC Use in the Work Context: Theoretical Background
One domain where the SOC model has received increasing scientific attention in the past years is the work context. The first study that applied the SOC model to the work context was published by Abraham and Hansson (1995). As mentioned above, the authors proposed that the SOC model can help to understand successful aging at work and developed an instrument to measure SOC strategies at work.

A theory-based call for the inclusion of the SOC model in the work context was made in 2001 when B. B. Baltes and Dickson (2001) stressed the importance of psychological meta-theories in work and organizational psychology. They argued that there is a lack of comprehensive theories that are based on well-developed psychological processes and advanced the SOC theory as one of the most suitable meta-theories that can be applied to work-life conflict, leadership, and organization-level functioning. Researchers have since followed this call to some extent and investigated the underlying relationships between SOC and work-life conflict (B. B. Baltes & Heydens-Gahir, 2003; B. B. Baltes, Zhdanova, & Clark, 2011; Wiese et al., 2000) and to a small extent the relationship between SOC and leadership (Bal et al., 2013) and SOC at the organizational level regarding organizational justice (von Bonsdorff et al., 2014).

Interestingly, B. B. Baltes and Dickson (2001) did not include the aging component of SOC in their theoretical application of the model to the work context but rather focused on the mismatch between goals and resources. However, aging workers have been a major focus of the SOC at work research. The underlying assumption is that older workers face physical and cognitive losses (Salthouse, 1996), which might negatively affect their occupational performance and subjective well-being. As has been shown above in the lifespan context, SOC strategies are assumed to counteract these losses and help to maintain occupational performance and subjective well-being. Apart from a focus on older workers, SOC at work research has covered topics such as antecedents of SOC (Abraham & Hansson, 1995; Venz & Sonnentag, 2015; Wiese et al., 2000), general occupational well-being in terms of job satisfaction and job engagement
Chapter 2

SOC and Successful Aging in the Work Context

With the new focus on aging in the work context, organizational researchers also became inspired by the literature on successful aging as a key to understanding how workers can successfully manage losses and continue to successfully develop their careers and maintain subjective well-being and performance as they approach later stages of their career. Although most research on work and aging still focuses on average (usual) age trajectories (e.g., Ng & Feldman, 2008; Scheibe & Zacher, 2013; Truxillo, Cadiz, Rineer, Zaniboni, & Fraccaroli, 2012), there is increasing attention for personal and work-related variables that modulate age gradients in occupational well-being and performance (e.g., Warr, 1993). These studies point at the fact that there is large heterogeneity among older workers when it comes to their work-related competencies and outcomes, and that some persons age more successfully (or unsuccessfully) in the occupational domain than others.

Zacher (2015) defined successful aging at work as positively deviating from the average developmental trajectory of a particular work-related outcome, regardless of whether the average trajectory is positive, neutral, or negative. For example, meta-analytic evidence based on cross-sectional studies suggests that there is overall no relationship between age and job performance (Ng & Feldman, 2008). Although one cannot easily draw conclusions about aging from cross-sectional age comparisons (given that age differences come about not only by aging, but also by cohort and selection effects; P. B. Baltes, Reese, & Nesselroade, 1977), if assuming that usual (average) aging indeed entails no change in job performance, successful aging in this case would be indicated by enhanced job performance with age. Similarly, the motivation to engage in job-related
training tends to decline with age (Maurer, Weiss, & Barbeite, 2003). Consequently, an older worker who continues to be eager to learn new skills and participate in job-related trainings would be considered to age successfully in the occupational domain.

As with successful aging in general, it is useful to distinguish criteria and processes of successful aging at work. Potential criteria comprise for example aspects of work motivation, job performance, positive relationships, and occupational health and well-being (Robson, Hansson, Abalos, & Booth, 2006; Zacher, 2015). Criteria can be subjective (job satisfaction) or objective (days being absent from work), domain-general (overall job performance) or specific (effectiveness as a leader), and static (current mental health) or dynamic (work ability now and in the future). For example, adopting a dynamic criterion, De Lange, Kooij, and Van der Heijden (2015) defined successful aging at work as the maintenance of workers’ health, motivation, and working capacity across the career.

Processes of successful aging at work include work and individual difference characteristics that help people age successfully at work. Although occupational context characteristics are certainly important drivers of the range of opportunities and constraints faced by older workers, the SOC model directs the focus to the active role of aging workers in shaping their own occupational development. Kooij (2015b) argued that successful aging at work is contingent on (pro)actively enhancing current and future person-job fit across one’s career despite changes in both person (e.g., declining fluid cognition) and context (e.g., increased job responsibility with age). Workers can achieve this by using SOC strategies. Specifically, they can select work and career goals to optimally utilize their strengths and circumvent vulnerabilities (selection), develop skills needed for current and future work requirements (optimization), and recruit help and technical aids to counteract losses (compensation).

**SOC in the Work Context: Review of Empirical Evidence**
Organizational researchers have conducted studies mostly focusing on job satisfaction, job engagement, and job strain in terms of well-being and work performance as a proxy for functioning. Before reviewing these studies, we discuss evidence on age differences in SOC use in worker samples.
Age differences in SOC strategy use

Compared to the general lifespan literature, the age range in the work context is much more limited. A meta-analysis with a systematic review of SOC at work research reports that the average age across all included samples in the meta-analysis was 43.28 years (average $SD = 10.61$ years, range = 16-86 years), which in light of the entire lifespan is not very old (Moghimi, Zacher, Scheibe, & Van Yperen, 2017).

In most Western countries, people still tend to retire around age 65 and people with age-related disabilities even earlier. Consequently, the variance in resource availability should be reduced in worker samples (relative to general-population samples), which could explain why only small age differences in SOC strategy use are found. Indeed, many studies in the work context found that age was not significantly associated with SOC (e.g., Bajor & Baltes, 2003; von Bonsdorff et al., 2014; Zacher & Frese, 2011), some studies confirm SOC theory and report a significant relationship between age and SOC strategy use (Müller, Weigl, Heiden, Glaser, & Angerer, 2012; Young, Baltes, & Pratt, 2007), while there is one study that reports a negative relationship between age and SOC strategy use (Bal, Kooij, & De Jong, 2013).

It should be noted that, different to studies in the developmental context, SOC at work studies do not primarily focus on age effects but rather on the benefits of SOC strategy use in general. The previously mentioned meta-analysis confirms that the link between age and SOC at work is rather weak and likely to be moderated by other factors. However, the limited number of SOC at work studies did not allow for testing for possible moderators of age differences in SOC strategy use (Moghimi et al., 2017). In the following we review outcomes of SOC strategy use in the work context and report age-differential results whenever they were found.

Consequences of SOC strategy use: Occupational well-being

One indicator of occupational well-being is job satisfaction. Job satisfaction is generally defined as positive emotions and/or attitudes one holds about one’s job (Weiss, 2002). Studies regarding job satisfaction almost conclusively report a positive relationship between SOC strategy use and job satisfaction (Schmitt et al., 2012; Wiese et al., 2000; Wiese,
Freund, & Baltes, 2002; Yeung & Fung, 2009). One of the few studies that did not find such a link is also the only study that did not use the commonly known SOC instrument (P. B. Baltes et al., 1999) but a self-developed questionnaire (Abraham & Hansson, 1995). Another study only reported a positive relationship of selection and optimization with job satisfaction but not of compensation with job satisfaction (Wiese et al., 2000).

A different indicator of occupational well-being is job engagement, the state where an individual invests their self into a certain role (Rich et al., 2010). All studies that have investigated the relationship between SOC and job engagement find a positive relationship (Schmitt et al., 2012; Weigl, Müller, Hornung, Leidenberger, & Heiden, 2014; Zacher et al., 2015).

A balance between work-life and private-life is also considered as an indicator of occupational well-being. A conflict between work and family life arises when the goals and requirements of these two areas are incompatible (Greenhaus & Beutell, 1985). As B.B. Baltes and Dickson (2001) suggest, SOC strategies can serve as a remedy to this type of conflict because adaptive goal-selection and resource allocation will eventually lead to a greater balance between these two life domains. Despite the obvious benefits of SOC strategy use in conflict situations, not many studies have focused on SOC strategy use and work-life conflict. However, the two studies that did investigate this topic indicate that SOC indeed has beneficial effects on decreasing work-to-family and family-to-work conflicts (B. B. Baltes & Heydens-Gahir, 2003; B. B. Baltes et al., 2011).

Interestingly, a conclusive association between SOC and job strain, an indicator of low well-being, has not been confirmed. While Demerouti, Bakker, and Leiter (2014) did not find any significant association between SOC and emotional exhaustion, other authors found only moderate to weak negative relationships between SOC and job strain (Wiese & Heidemeier, 2012) and between SOC and fatigue (Schmitt et al., 2012). However, Shang, Riedel, Loerbroks, and Müller (2015) found that low levels of SOC strategy use were associated with increased depressive symptoms. In line with these findings, SOC is considered to be efficient in decreasing depressive symptoms in nurses over time (Müller, Weigl, Heiden, Rudolph, & Angerer, 2017).

All in all, SOC strategy use has often been investigated as a predictor
of positive well-being outcomes in the work setting and most studies confirm assumptions stated by SOC theory that SOC use helps to maintain functioning in face of high demands.

**Consequences of SOC strategy use: Effectiveness on the job**

Benefits of SOC strategy use at work for effectiveness on the job has until now been assessed through subjective and objective work performance and this relationship has mostly been found to be positive. Some studies report results for overall SOC use while others report results for selection, optimization, and compensation separately. For instance, Wiese and colleagues (2000) report that a positive association could only be found between optimization and subjective performance and compensation and subjective performance, while Yeung and Fung (2009) found a positive association between overall SOC strategy use and subjective performance. Two studies report positive associations between SOC strategy use and objective performance in form of supervisor evaluations (Bajor & Baltes, 2003) and sales productivity in insurance sales workers (Yeung & Fung, 2009). The latter further clarifies that the relationship between SOC strategy use and performance is positive for older workers when task difficulty is low. In younger workers, the positive relationship exists for medium or high difficulty tasks.

Studies that contradict these results were conducted by Abraham and Hansson (1995) and Demerouti and colleagues (2014). Whereas the former did not find any significant relationship between SOC strategy use and performance, the latter reported a negative association between elective selection and task performance and no relationships between the other SOC components and performance. In their meta-analysis, Moghimi and colleagues (2017) confirm that SOC strategy use is positively associated with subjective and objective indicators of job performance.

Besides core indicators of performance, such as productivity, there are also other indicators of occupational performance, such as organizational citizenship behavior (Ng & Feldman, 2008). There are not many studies that consider such indicators of job performance in relation to SOC, however, a recent study by Müller and Weigl (2017) investigated self-reported SOC strategy use in teachers and organizational citizenship
behavior as reported by their teaching partner. The results show that in older employees, use of loss-based selection and compensation are associated with higher perception of citizenship behavior as reported by the teaching partner. However, younger teachers who reported high levels of compensation were perceived as demonstrating lower levels of citizenship behavior. As a possible explanation, the authors suggest that younger workers might have been less able or willing to adjust compensation behaviors to the social requirements of their work setting and were therefore rated lower in citizenship behavior.

Consequences of SOC strategy use: Career development
The development of a career involves various stages and processes where one has to choose certain career goals or shift from a previously desired career goal to a new one. Furthermore, as defined by Freund and Baltes (2000), optimization and compensation refer to goal pursuit and maintenance which renders them highly important for the successful pursuit of a career. Until now there are no studies that consider SOC over the course of a whole career. However, there are several studies that focus on different stages of careers. For instance, Abele and Wiese (2008) showed in a large-scale study that selection and optimization were positively related to career satisfaction, whereas only optimization was positively related to objective career success comprising pay, level of responsibility, and leadership position. It should be noted though, that this study does not provide any information about the use of compensation. Zacher and Frese (2011) conducted a study on focus on opportunities, which is defined as positive beliefs regarding future work goals and possibilities (Zacher & Frese, 2009). Results support the idea that SOC strategy use fosters a more positive focus on opportunities. Additionally, the authors found that older people who show lower levels of SOC strategy use in jobs that are characterized as being rather low in complexity, show less focus on opportunities compared to older people who use more SOC in low-complexity jobs. The authors conclude that the use of SOC strategies helps especially older individuals to counteract the higher demands of old age and the detrimental effects of low-complexity jobs on a positive focus on opportunities.
While the previous studies focused on SOC strategy use in general and age was rather a secondary focus, there is also a career stage that is exclusively applicable to older individuals, namely bridge-employment. Bridge employment refers to forms of employment that one can take on after leaving one’s career job and before completely withdrawing from the labor force (e.g., a part-time job or self-employment), and is thus a good context to investigate the interplay between age and SOC strategy use at work. However, there is only one study that has focused on SOC in this late career stage. Müller and colleagues (2013) suggested that SOC strategy use can buffer the negative effects of poor health on the intention to remain in bridge employment. The results show that for individuals who showed higher levels of SOC strategy use, there was no relationship between health status and the intention to remain in bridge employment. However, for low-SOC individuals with poorer health, the intention to remain in bridge employment was weaker. Results confirm SOC theory once again by showing that individuals who engage in these strategies in situations that present a mismatch between goals and resources, in this case poor health, can maintain better levels of functioning.

**Interventions**

There is currently only one intervention study that investigates the effects of SOC training on occupational well-being (Müller, Heiden, Herbig, Poppe, & Angerer, 2016). In this study, nurses who received SOC training were asked to implement SOC strategies in order to deal with one important job demand or activate a job resource of their choosing. The results only reveal a statistical trend that SOC training improved mental well-being. The authors recommend that future interventions should devote enough time to the training phase and the subsequent phases to allow for each SOC strategy to develop or improve. This suggestion is in line with previously reported studies from the lifespan domain that suggest that SOC strategy use is improved over time, i.e., with increasing age.

In conclusion, empirical findings clearly support the benefits of SOC use in the work context. SOC strategy use leads to greater job satisfaction, job engagement, and to better performance. Nonetheless, it is often not clear whether these benefits are a result of the conjoint use of all SOC strategies
or only attributable to certain strategies and not to others. Furthermore, while some studies include age as a possible moderator of SOC strategy use, others do not report any age effects. Therefore, it is not possible to clearly answer the question whether SOC strategy use is more beneficial for older workers compared to younger workers. Meta-analytic results show that older workers tend to use more SOC strategies at work, but the results do not allow inferences regarding the age-differential effectiveness of SOC use at work. Based on the presented results we conclude that SOC strategy use is beneficial to all people who use them, regardless of their age. Furthermore, interventions focusing on SOC strategy use seem to have potential for improving employee well-being but are until now rather scarce and should receive more attention in the future.

**Discussion**

The goals of this chapter were to present the SOC model in its general form and to investigate its relevance in the context of aging in the work setting. Taken together, there is some evidence suggesting that SOC strategies are important both for successful development in general and for successful development and aging at work in particular. Despite the described benefits of SOC strategy use, our literature review also leads us to point to some shortcomings of the literature on SOC at work. In the following, we discuss some of these shortcomings and suggest future research directions that can help to further SOC at work theory and research, as well as close existing gaps in the SOC at work literature.

**SOC Measurement**

In work and organizational psychology most studies do not use the original dichotomous version of the SOC questionnaire. Mostly, studies employ 12 items that display SOC behaviors and respondents are asked to state the extent to which they agree with those statements (e.g., Zacher & Frese, 2011). Results are mostly reported in three different ways: overall SOC strategy use (e.g., Müller, Weigl, Heiden, Glaser, & Angerer, 2012; Zacher & Frese, 2011), three separate scores for selection (including loss-based
and elective selection), optimization, and compensation (e.g., Zacher et al., 2015), and finally four different scores for each strategy (e.g., B. B. Baltes et al., 2011; Demerouti, Bakker, & Leiter, 2014). Many authors argue that selection, optimization, and compensation form an ensemble of strategies and can therefore be reported as the overall mean of those strategies (for a discussion see: Rudolph, 2016). However, assuming that SOC represents a set of equally adaptive strategies that are all used to the same extent at any given moment in time seems to be oversimplifying the concept of SOC. Additive scores disregard between-person differences in strategy choice and therefore only convey partial results. For instance, a person who mostly optimizes and is relatively low on other strategies would have a similar mean score as a person who mostly or exclusively compensates. The mean scores of these two people might be very similar, however, the strategies that they use might not be equally adaptive. Hence, we propose to treat SOC strategies as a series of actions that are used to different degrees and are not always equally adaptive. Results should be analyzed and reported for each strategy separately and interpreted within the context of interest. Other ways to investigate and report SOC strategies could be identifying profiles of people who show preferences for certain combinations of strategies. Latent profile analysis could be used to uncover groups of people based on their SOC scores and provide a more holistic view on SOC users.

**Developing a SOC Instrument for the Work Setting**

As mentioned above, to assess SOC in the work setting, the original questionnaire has been adapted to the work setting by adding the words “at work” at the beginning of each question (e.g., Zacher et al., 2015; Zacher & Frese, 2011). Some studies have also adapted the original questionnaire to private goals (e.g., Wiese, Freund, & Baltes, 2000). However, except for adapting the item description to different settings (see SOC measurement section), there is no instrument that considers the differences between work goals and private goals and exclusively assess SOC at work. By using the same instrument for general life goals as well as work goals, it is implied that these two types of goals require the same resources and the same SOC strategies.
In general, goals are defined as internal representations of desired states (Austin & Vancouver, 1996). These states can range from primitive physical states (wanting to eat) to more abstract desired states such as career goals (wanting to be successful at work). Furthermore, goals can be momentary (today I want to answer all my emails) or refer to an entire life phase (after my studies I want to start my own firm). While SOC theory does suggest that people are usually more effective and experience greater subjective well-being when they apply SOC strategies, the theory does not make a clear distinction between life domains, for instance private goals versus work goals. Additionally, the theory does not make a clear distinction between short-term and long-term goals.

A major difference between private and work goals concerns the autonomy in goal selection. In the work context, there is typically lower autonomy in the development of and commitment to different goals. Although the SOC model does not assume that selection has to occur autonomously (Freund et al., 1998), the items of the questionnaire presuppose autonomy (e.g. for loss-based selection, “When I can’t do something important the way I did before, I look for a new goal”). Also in the previously reported meta-analysis autonomy is highly correlated with SOC strategy use (Moghimi et al., 2017). However, abandoning certain work goals in order to pursue others (elective selection) might not be possible for every employee because most work goals are work tasks that need to be accomplished sooner or later and are often determined by a superordinate. Therefore, reorganizing goal hierarchies or abandoning some goals to pursue others might not always be possible in the work setting.

Finally, work goals often refer to the current work day and can therefore be more mundane and concrete than life goals (e.g., responding to emails, finishing a presentation vs. finding a partner, having children). Although work-related goals are also organized in a hierarchy ranging from concrete, lower-order goals to overarching, higher-order goals (e.g., from responding to emails to having a successful career), it is an empirical question whether the SOC strategies can be equally applied to all levels of goals, a question that has not been addressed in the work-context as of yet.

It might be helpful to the investigation of SOC at work if an instrument
to assess these strategies was adapted to the specific nature of work goals. So far, such an instrument only exists for nurses (Müller et al., 2013) but not for other occupational sectors. Adapting the current SOC instrument to the work setting or developing a new instrument would help to gain a more detailed insight into how SOC applies to different kinds of work. This, in turn, could help practitioners and employers to understand how work goals are developed and pursued and where employees’ priorities lie.

**Distinguishing Between Long-term and Daily SOC Strategy Use**

Currently, only very little is known about the dynamics of SOC strategies on a daily or hourly basis (but see Knecht & Freund, 2017; Teshale & Lachman, 2016; Venz, Pundt, & Sonnentag, 2017; Zacher et al., 2015). The SOC questionnaire assesses general behavioral strategies, disregarding within-person fluctuations in SOC strategy use. Moreover, most studies assess SOC only at one point in time or with time lags of several months or years (B. B. Baltes, Wynne, Sirabian, Krenn, & de Lange, 2014; Wiese & Heidemeier, 2012; Wiese et al., 2002). Thus, to date little is known about short-term fluctuations in SOC strategy use. In the work context, there are only three studies that measure SOC strategy use at work on a daily basis, which demonstrate that there is indeed daily, within-person variation in SOC strategy use (Knecht & Freund, 2017; Venz et al., 2018; Zacher et al., 2015). These studies lend support to the idea that SOC is used in a flexible manner, responding to momentary situational requirements.

At the same time it has been argued that SOC strategies themselves are also resource consuming (Freund & Baltes, 2002b) which might interfere with momentary situational (work) demands. A study conducted by Kanfer and colleagues (1994) supports the general idea that self-regulatory processes can be resources consuming. The authors investigated the effects of goals under spaced practice (practicing a task with breaks) versus massed practice conditions (practicing a task without breaks) on skill acquisition of complex tasks. They hypothesized and confirmed that those individuals who were assigned specific performance goals for tasks that could be practiced in intervals (i.e., spaced practice), performed better than those individuals who had the same goals but could not take any breaks during task practice (i.e., massed practice). The authors argue that
goal assignment activates self-regulatory processes; performing a complex task and at the same time trying to activate self-regulatory processes results in a conflict between task demands and self-regulatory demands. During the practice breaks, there is no such conflict which in turn allows the activation of self-regulatory processes and leads to goal achievement and better performance in subsequent task practice.

It would be interesting to investigate whether such conflicts also arise when one is engaging in SOC strategies and has to perform demanding work tasks at the same time. Furthermore, it is of relevance to know if a frequent use of the strategies in everyday life leads to the kind of practice effect such that SOC becomes less resource demanding for people who habitually use the strategies in their everyday lives.

**Investigating SOC at the Team or Organizational Level**

Up until now, SOC strategy use has exclusively been measured on the individual level. Despite an early call to investigate SOC use on the leadership and organizational level too (B. B. Baltes & Dickson, 2001), there are currently no studies that shed light on SOC strategy use at a team or organizational level. Especially at an organizational level it would be of interest to see how company goals are selected, when goal hierarchies are restructured, and how goal pursuit is implemented most efficiently for a given company. Furthermore, one could compare teams or work groups and their success based on the strategies used and try to determine at which stage things go wrong if they do. This knowledge could serve as a fruitful basis for organizational interventions. Increasing awareness for SOC strategies and teaching professionals and their subordinates how to use SOC strategies most effectively could increase organizational performance and employee well-being in many ways. Nevertheless, it should also be noted that in teams, goals are often interrelated and interdependent. More often than not, work goals follow a certain hierarchy and processes to achieve those goals (i.e., optimization) have to follow certain protocols and orders. Based on this perspective, it might be a rather challenging task to assess SOC strategy use on a team or organizational level (Rudolph, 2016).
**Conclusion**

In the present chapter we provided an overview of the model of selection, optimization, and compensation in the lifespan literature as well as in organizational psychology. We described how the meta-theory of successful development and life-management was adapted to an action-theoretical perspective and how the action-theoretical view on SOC facilitated the integration of the SOC model in the work and organizational psychology literature. Our review of empirical studies conveyed that the use of SOC strategies appears to develop over the lifespan and may peak in middle adulthood, although the cross-sectional nature of available data limits the conclusions we can draw. We further showed that older and younger adults demonstrate differences in their preferred goal orientations and that this can be explained through (expected) resource availability. In the third part of this chapter we reviewed the SOC at work literature and concluded that SOC at work is associated with increased performance and well-being outcomes such as engagement and job satisfaction. We further concluded that the relationship between age and SOC at work is rather small and, opposed to SOC theory, in the work setting the benefits of SOC strategy do not seem to be age-dependent. Finally, we suggested to adapt the SOC instrument to the work setting and called for more studies that investigate the momentary use of SOC strategies.

All in all, the SOC model proves to be a powerful model of successful life-management that has been successfully applied to the work setting. Clarifying the specifics of SOC strategy use at work helped indicating when these strategies are most adaptive and will benefit the aging workforce maintain a satisfying level of occupational performance and well-being. Practitioners can use this knowledge for interventions while employees can learn how to use their personal and environmental resources and how to manage limited resources and (age-related) losses in the most adaptive way.

The SOC model helps to understand how older employees manage to maintain satisfactory levels of functioning and subjective well-being in face of age-related losses and resource declines, and is therefore a valuable contribution to the aging-at-work literature. We suggest that
future research puts an even greater focus on SOC at work by developing interventions that teach young and older workers how to manage their resources in the most adaptive way and thereby maintain high levels of occupational well-being and performance in face of challenging demands.