Promoting Later Planned Retirement:

Construal Level Impact Reverses with Age

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Abstract

Individuals' planned retirement age is affected by a trade-off between financial costs (a feasibility oriented consideration) and the number of years in retirement (a desirability oriented consideration). Previous research shows that construal level interventions (i.e., activating a global vs. a local mindset with individuals) affect the relative importance of these two types of decision aspects such that primary considerations become more important under a global mindset compared to secondary considerations. In this research, we predict that this results in an age-related reversal of the effect of a construal level induced global mindset on the planned retirement age. The reason is that as individuals' chronic temporal distance to retirement decreases (i.e., they become older), their primary retirement goals are likely to change. Younger individuals are temporally distant from retirement and primarily driven by desirability goals, whereas older individuals are temporally close to retirement and driven by feasibility goals. Therefore, since a global construal level intervention increases the impact of individuals' primary goals, we predict that such an intervention decreases planned retirement age for the younger age group but increases it for the older age group. Results from two online surveys confirm this predicted decision process. First, they show that younger individuals are more likely to plan for a retirement age that they cannot afford than older individuals. Second, the results demonstrate that a construal level intervention-induced global mindset increases the impact of desirability considerations on the planned retirement age for younger individuals (and lowers planned retirement age), but increases the impact of feasibility considerations for older individuals (and increases planned retirement age). Jointly, these findings underline the importance of taking into account both individuals' chronic and situationally-induced mental construals of the planned retirement decision when designing policy communications to promote retirement at a later age.

1. Introduction

In the coming decades, many countries worldwide will be facing new economic challenges that are caused by an aging population. For example, the economies of Europe, China and to a lesser extent also the USA expect a sharp increase in the percentage of the population that will be over 65 in the next forty years (Economist 2013; Financial Times 2013; US Census Bureau 2012). Thus, a much smaller proportion of the population will be economically active, and many individuals will spend more time in retirement. This trend is likely to cause serious budget pressures on collective pension funds, public welfare old age provisions, and individuals' private pension savings (Zaida 2012). An often proposed remedy to reduce this impact is to promote later retirement (European Commission 2010). While later retirement can partly be enforced through policy regulations (such as providing social old age welfare support only at a later age), another important strategy involves communications to influence individuals' retirement planning. For example, this could be done by stimulating and training people to think about how much they would need to save and how long they would need to work before they can retire comfortably (Lusardi and Mitchell 2007).

Planning for retirement requires individuals to make complex trade-offs between the financial costs of retiring (a feasibility oriented consideration) and the number of years that they want to stop working earlier (a desirability oriented consideration). Previous research has indicated that both aspects are important when deciding on a retirement age, but little is understood about the relative importance of these two conflicting aspects in individuals' decision making (Beehr et al. 2000; Wang and Shultz 2010). Yet, to develop effective communication interventions, it is important to understand when feasibility oriented retirement considerations are more influential than desirability considerations and vice versa.

Construal level interventions are a type of communication intervention that has been shown to be successful in influencing individuals' trade-offs between feasibility and

desirability oriented considerations (Chiou et al. 2013; Whiteet al. 2011). These interventions impact individuals' activation of a global vs. a local mindset which in turn increases the importance of their primary goals, (i.e., goals with a focus on values and principles) compared to their secondary, more practically oriented goals (Danziger et al. 2012; Kray and Gonzalez 1999; Trope and Liberman 2003, 2010). Not surprisingly, a global mindset is generally found to increase the impact of individuals' desirability goals over their feasibility goals (Danziger et al. 2012; Kray and Gonzalez 1999).

However, these results were obtained in conditions where desirability goals, were also more central to the individual's preferences and hence more primary to the particular decision. There is emerging evidence that a global mindset shifts attention towards primary goals, but not necessarily to the desirability oriented goals. Kivetz and Tyler (2007: Study 1) show that the impact of a construal-level activation on the influence of desirability vs. feasibility goals is affected by whether an individual views financially-related or identity-related values as guiding principles in life This suggests that a global processing mode increases the influence of desirability goals if and only if they are primary to the individual, and that when feasibility goals are primary, a global mindset may lower the importance of desirability goals and increase the influence of the feasibility goals.

In the context of retirement, the fact that younger individuals typically plan to retire earlier than older individuals (Taylor and Shore 1995) leads us to anticipate that desirability goals play a primary role in retirement decision making among younger workers (more distant from retirement), whereas feasibility goals play a primary role among older workers. We propose that inducing a global mindset increases the emphasis on feasibility oriented goals in older workers, but increases the emphasis on desirability oriented goals in younger workers. In this research, we investigate whether indeed the impact of construal level interventions on an individual's planned retirement age differs across age groups.

2. Construal Level Interventions and Individuals' Planned Retirement Age

2.1 Construal Level Interventions: Enhancing Primary vs. Secondary Goals

An individual's goal orientation may be affected by environmental cues in the decision context that create a temporary shift in mental representations. In particular, external cues can temporarily activate different construal levels (Trope and Liberman 2003; 2010). Research in Construal Level Theory (CLT) has shown effects of construal level interventions on preferences for primary decision attributes versus secondary attributes. A global mindset increases the importance of the primary goals and hence of the corresponding attributes in the decision compared to a local mindset (Danziger et al. 2012; Kivetz and Tyler 2007; Kray and Gonzalez 1999; Trope and Liberman 2003; 2010)).

A global mindset is generally found to increase the impact of individuals' desirability goals over their feasibility goals (Danziger et al. 2012; Kray and Gonzalez 1999). However, these results have typically been obtained in conditions where desirability goals are also more primary to the particular decision than feasibility goals. It is not clear how these findings extend to situations where feasibility (instead of desirability) goals are primary to the individual's preferences. Recent research provides evidence that the relationship between construal level interventions and the importance of feasibility versus desirability goals may differ depending on the decision context. Kivetz and Tyler (2007, Study 1) find that – under a global but not a local processing mode – individuals who chronically view self-respect as more primary to their self-definition prefer desirable identity attributes (e.g., "professor treats me with respect") over pragmatic instrumental benefits (e.g., "course looks good on resume"), whereas those who chronically view financial prosperity as more primary to their self-definition prefer pragmatic benefits over identity attributes. Trope and Liberman (2000) provide another example where a global mindset prime shifts the decision towards a less "desirable" option. They study the relationship between psychological distance while priming

students with different primary goals when watching a film. For students primed with an affective goal (central to the decision was "getting oneself in a good mood", a desirability goal), temporal distance increases the preference for a funny/ uninformative movie (i.e., the affective movie) over a not-funny/ informative film. The opposite results were found for students primed with a cognitive goal (central was "learning about the topic", a more instrumental goal). Hence, before using construal level interventions to promote later retirement, we must understand which decision attributes are primary (vs. secondary) and not which attributes are desirability (vs feasibility) oriented.

2.2 Planned Retirement Age: A Battle between Desirability and Feasibility

When individuals set themselves future goals, they are likely to experience a conflict between goals that they *would like to* achieve (desirability goals) and goals that they think they *can* achieve (feasibility goals)(Bargh et al. 2010, p. 272, Achtziger et al. 2012, p. 123). In case of an individual's decision for a planned retirement age, both goals are likely to be salient in the decision context (Taylor and Shore 1995). While most individuals prefer to retire sooner, there is evidence that they often do not expect to be able to retire at their preferred age (Ekerdt et al. 1980; Esser 2006; Zappalà et al. 2008). This suggests that whenplanning for retirement, an individual's desirable retirement age is tempered by feasibility concerns.

Further support for the joint importance of desirability and feasibility considerations comes from studies that examine the link between planned retirement age and individual-level measures related to both desirability and feasibility oriented goals (see Wang and Shultz (2010) for a review). Evidence on the influence of desirability goals comes from research that links an individual's work attitude to plans for retirement. A broad range of work-related factors has been found to motivate individuals to retire (early), such as simply "being tired of working" (Beehr et al. 2000), low anticipated attractiveness of future work (van Dam et al.

2009), low career commitment, and having attained occupational goals (Adams 1999).

Feasibility oriented goals, such as being financially secure, have also been found to be one of the most consistent predictors of retirement (e.g., Beehr et al. 2000). Workers should only retire when they feel that there are sufficient financial resources for a comfortable life after retirement. Indeed, the majority of prior research indicates that workers are generally more likely to retire (early) if they can afford it than if they cannot (e.g., Wang and Shultz 2010).

2.3 Chronic Goal Heterogeneity and Construal Level Theory

Besides situationally induced mental representations of a decision (such as a shift due to a construal level intervention), individuals also can differ in their chronic mental representation of decisions (Vallacher and Wegner 1989).They often have relatively stable mental representations of what decision attributes they consider to be primary (i.e., central to the meaning of the decision) and secondary (i.e., less central) for particular decisions. What is considered to be a primary attribute for one person might be secondary for another (e.g., Trope and Liberman 2000; Trope and Liberman 2010, p. 456). For example, prior research in the domain of action identification theory distinguishes between low-level construal individuals, who frame decisions mainly in terms of specific details of an action, and high-level construal individuals, who are mainly concerned about the higher level goals and social meanings of an action (Vallacher and Wegner 1989).[1]

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[1] Other theories related to goal heterogeneity differentiate individuals based on their focus on advancement and accomplishment when pursuing goals (promotion focus) versus a focus on security and responsibility (prevention focus; e.g., Higgins 1998, Pennington and Roese 2003). More generally, individuals have been found to chronically differ in what values are central in guiding their behaviors (e.g., Agerström and Björklund 2009; Kivetz and Tyler 2007; Verplanken and Holland 2002). For instance, some individuals may be guided by financial prosperity in important life decisions, whereas others may be guided by non-financial aspects such as self-respect.

While chronic mental representations are generally stable over time and mainly differ across individuals, they may also slowly change over the course of life within a given individual especially for important life decisions such as retirement. Indeed, other research streams have reported changes in chronic goal orientations at different ages. For example, goal orientations shift from growth toward maintenance and loss-prevention as individuals grow older (Freund and Ebner 2005; Freund et al. 2010), and the values and needs that are central to the individual also change with age (e.g., Rhodes 1983).

Moreover, research in CLT has addressed the effect of a decision's (psychological) distance on goal orientation (Trope and Liberman 2003; 2010; Trope et al. 2007). According to CLT, (psychological) distance determines how individuals mentally represent decisions and events and, as a consequence, what types of decision attributes they primarily consider while making a decision or evaluating an event (Trope et al.2007). Therefore, we anticipate that with greater psychological distance from a future event, and hence when individuals are younger in the case of retirement decisions, individuals are more inclined to represent events in terms of high-level rather than low-level construals (Trope & Liberman 2003; 2010).

Our subsequent theorizing will build on this difference in the role of chronic versus situationally induced global (or local) mindsets. We propose that the chronic mindset determines the mental representation, including the relative importance of the desirability and feasibility attributes of the decision. Situationally induced mindsets then activate the goal that is primary (or secondary) to the decision.

2.4 Hypotheses

Since distance toward retirement is inherently different for different age cohorts, we predict a shift in workers' mental representations of the retirement decision over their lifetimes. In particular, we expect that the primary goals for younger workers are desirability oriented,

because they are temporally distant from the retirement decision. We predict that older workers, who are temporally closer to retirement, are relatively more feasibility oriented. This heterogeneity in goals can explain why younger individuals generally plan to retire earlier than older individuals, as younger workers are relatively more concerned about their desired goal of retiring earlier than about the feasibility of being able to pay for this earlier retirement age. As a consequence, we hypothesize that younger workers are less concerned with affordability and more likely to plan a retirement age that they cannot afford based on their current savings.

   H1: Younger workers are more likely to plan for a retirement age that they cannot afford with their current savings pattern than older workers.

   In our empirical analysis, we account for differences in respondents' expectations of the age at which they will become eligible for a state pension. This age differs across age cohorts and could confound our analysis on retirement planning behavior. We therefore analyze the decision to retire relative to the age at which one expects to qualify for a state pension. This age is focal in the retirement decision and the costs of early retirement are mostly driven by the difference in planned retirement age and the state pension age rather than by the actual age at which one plans to retire.

   Next, given the existence of differences in primary goals across individuals, we propose that the previously observed effects of global vs. local processing cues on the activation of feasibility versus desirability goals cannot be generalized to situations where feasibility is the primary goal of the decision. Instead, we predict that a more global processing mindset enhances the relative influence of the goal that is primary in the chronically stable mental representation of decision-making – independent of whether this primary goal is desirability or feasibility oriented. At the same time, a local processing mindset enhances the relative

influence of the goal that is chronically represented as secondary. In the context of retirement planning, the chronic primacy of desirability versus feasibility goals reverses as the decision to retire comes closer. Therefore, we hypothesize that an individual's (age-based) temporal distance to retirement moderates the impact of construal level activation (activating a global vs. local mindset) on the relative importance of feasibility versus desirability retirement-age goals.

We test our predictions by examining the effect of construal level activation on the relative importance of feasibility and desirability retirement goals. If indeed younger workers are primarily guided by desirability, then desirability related decision attributes, such as a worker's desire to stop working (Hanisch and Hulin 1991), should have more impact under a global processing mindset. At the same time, if younger workers are only secondarily guided by the feasibility of their decision, then feasibility aspects of their decision, such as whether a worker can afford to retire early, should become more influential under a local processing mindset. We predict the opposite results for older workers, because they are primarily guided by feasibility goals (see Figure 1 for a graphical illustration).

H2a: For younger workers, a construal level intervention that induces a global [local] mindset increases the effect of the desire to stop working [affordability] on planned retirement age.

H2b: For older workers, a construal level intervention that induces a global [local] mindset increases the effect of affordability [desire to stop working] on planned retirement age.

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This age-dependent effect of construal level interventions has important implications especially for workers with a strong desire to stop working and low affordability. These workers would like to retire earlier (desirability), but cannot financially afford to do so (feasibility), so they experience a clear conflict when deciding on their retirement age. In contrast, there is no such conflict for workers with a low desire to stop working and/or high affordability. A low desire to stop working induces them to retire later, or available financial means allow them to retire earlier. In this case, construal level interventions will not be effective because these workers do not experience a trade-off in their decisions that can be shifted by the intervention.

For those who experience a strong conflict in their retirement goals, we predict (in line with H2) that a global processing mode results in a decision that is more in accordance with their chronic primary concern. For younger workers, we therefore expect that global processing solves the conflict by emphasizing their (primary) desirability concern (i.e., a focus on the desire to stop working and to retire early), resulting in an *earlier* planned retirement age compared to local processing (i.e., a focus on feasibility and the need to work longer). In contrast, for older workers we expect that global processing solves the conflict in accordance with their (primary) feasibility goals (i.e., a focus on financial affordability), resulting in a *later* planned retirement age compared to local processing (where the desire to stop working dominates the decision). This leads us to hypothesize that the optimal construal level intervention to promote later planned retirement differs between the two age groups.

H3a: Younger workers plan to retire later under a construal level intervention that induces a *local* mindset (when affordability is low and the desire to stop working is strong).

H3b: Older workers plan to retire later under a construal level intervention that induces a *global* mindset (when affordability is low and the desire to stop working is strong).

3. Study 1: Chronic Goal Differences among Younger and Older Workers

The objective of the first study was to investigate if younger workers are more likely than older workers to plan to retire at an age that is currently not affordable to them (H1). The study involved a questionnaire-based survey in which respondents were asked questions about their (planning for) retirement. We studied planned retirement age in the Netherlands. The Dutch pension system is well-known for its broad coverage which makes it suitable for a general study of retirement planning decisions. In addition to a pay-as-you-go state pension scheme, more than 95% of the employed population is covered by quasi-mandatory occupational pension plans (Dutch Ministry of Social Affairs and Employment 2011). Yet, similar to many other countries, the Dutch pension system is changing rapidly and faces challenges of an ageing population. In the past two decades, the Dutch government has taken several measures to make early retirement financially less attractive (e.g., Euwals et al. 2005; Van Oorschot 2007). A recent political debate focused on whether and when the official age for receiving a full old-age pension should be increased from 65 to 67 (e.g., Business Week 2010). Even though these developments still allow workers to retire earlier than the official pension age, early retirement is getting more and more expensive. This has at least two reasons. First, workers qualify for state pension only after reaching the official retirement age. For many workers, a state pension is the largest part of their income (Dutch Ministry of Social Affairs and Employment 2011). Second, drawing on pension reserves earlier lowers the individual's income in retirement because there are fewer years of contributions into the pension plan and the pension plan needs to pay out the accumulated resources over a greater

number of years. Therefore, instead of retiring early, an individual may also decide to retire later than the official pension age. This has the opposite effect; an individual's pension is raised for every year he or she decides to retire later. Overall, the system implies that it is financially infeasible for many workers to retire early unless they take sufficient financial measures to bridge the years before they qualify for a state pension. Still, many workers expect to retire well before the legislated retirement age (Esser 2006).

3.1 Sample

A total of 245 panel members from a Dutch online research panel participated in the study. To ensure that respondents were in a job, were sufficiently interested in their retirement, and were some years removed from the official state pension age so that retirement planning was still relevant to them, we selected only those panel members who worked as an employee for at least 30 hours per week, those who participated in an employer pension plan, and those aged between 40 and 60. Respondents were excluded from the analysis when their response times were extremely fast (the time they needed to answer all questions was more than two standard deviations below the mean log completion time) and when their answers to an open ended question on thoughts about retirement revealed they had not understood the question correctly. Participants who indicated to plan to retire earlier than 14 years before or later than 14 years after the state pension age were also excluded. The study consisted of two subgroups that differed in whether or not they received general information about the costs of early retirement. The results below are based on the pooled sample because a separate analysis in each subgroup resulted in directionally identical results, but lowered significance levels. Respondents were divided in two groups that included either younger (age 40-50, n = 102) or older respondents (age 51-60, n = 143). More details on the socio-demographic characteristics of the sample can be found in Table A2 (Appendix A).

3.2 Measurement of dependent and independent variables

Respondents were asked to imagine that they could discuss their retirement situation with an advisor. This was followed by questions about their situation and retirement plans.

Planned retirement age – To capture individuals' intention to retire early, we combined two questions to gauge how much earlier participants planned to retire than the age at which they expected to become eligible for their state pension. Thus, planned retirement age was measured by the following open-ended question: "If you had to decide now, at what age would you retire?" We measured the age at which the respondent expected to qualify for a state pension by the following question: "At what age do you expect to start receiving your state pension?" A composite planned retirement scale was formed by subtracting the respondent's expected state pension age from the respondent's planned retirement age. This allowed us to correct for respondents' anticipated changes in the state pension regulations as driver of their planned retirement age. A positive value on our composite scale implies that a respondent plans to work beyond the expected official state pension age, whereas a negative value implies that the respondent plans to retire before qualifying for a state pension.

Affordability of the planned retirement age – To investigate the effect of individuals' current age on the perceived affordability of their planned retirement age, respondents were asked whether they considered their planned retirement age to be affordable based on their current saving behavior. We adopted the savings adequacy scale used by Van Schie et al. (2012), and measured affordability using a five-point scale ranging from "totally inadequate" to "totally adequate" in response to the following question: "You indicated that you expect to retire at the age of [planned retirement age of the respondent]. Imagine that you will NOT adjust your current saving behavior. In this case, do you expect to have adequate financial resources at this age to live comfortably after retirement?" Finally, respondents' current age was also asked.

Control variables – Prior research indicates that individuals' planning and retirement decisions are affected by socio-demographic variables (e.g., Hershey et al. 2007), and this also extends to the retirement age decision (e.g., Wang and Shultz 2010). External push factors such as unemployment and poor health may force individuals to involuntarily retire sooner (Wang and Shultz 2010).Therefore, we included these variables as controls in our analyses (see Appendix A for details).

3.3 Model

We estimated an ordered probit model to study the relationships between individuals' current age and the affordability of their planned retirement age. The reason is that affordability of planned retirement age is measured on an ordinal scale with five categories, which makes the ordered probit model appropriate. To verify that the low affordability of planned retirement age is indeed an important factor in driving the difference in planned retirement ages across young and old, we tested whether affordability mediates the impact of age on planned retirement age. We also relied on the ordered probit model as the planned retirement age tends to be ordinal as well. Individuals often have a strong preference to stick to the status quo and the default option (e.g., Kahneman et al. 1991; Thaler and Sunstein 2003), which is especially the case for retirement decisions (e.g., Madrian and Shea 2001). Therefore, a deviation with one year from the official state pension age is likely to loom much larger than an incremental deviation with one year from two to three years before the official state pension age.

3.4 Results and Discussion

To test Hypothesis 1, we regressed respondents' perceived affordability of the planned retirement age on their age group, while controlling for a number of other variables. The results are presented in the first column of Table 1 and reveal a significant effect (β = -.362; p

< .05) of being young (vs old). This confirms our hypothesis that younger (vs older) workers are more likely to plan to retire at an age they currently cannot afford.

If this difference is the result of a different trade-off between desirability and feasibility goals, it should also have consequences for the planned retirement age itself. In particular, younger people pay more attention to desirability and might be willing to sacrifice more on the feasibility aspects of their plans. To see whether this trade-off between feasibility and desirability goals is made, we estimated an ordered probit model with planned retirement age as the dependent variable and affordability, age group (young vs. old group), and the control variables as independent variables. The estimation results are reported in the second column of Table 1 and show a significant positive effect of affordability of the planned retirement age ($\beta = .188$; $p < .01$). People who are willing to retire at an age that they currently cannot afford, i.e., those with a low importance for feasibility goals and low scores on affordability, also tend to plan to retire earlier, i.e., they achieve their desirability goals.

A remarkable finding in this analysis is that there is no direct effect of age on the planned retirement age ($\beta = -.212$; $p > .10$). This is in contrast with earlier literature showing that younger people tend to retire earlier (Taylor and Shore 1995). We repeated the previous analysis, without affordability as a predictor variable, and found a significant negative impact of being young on planned retirement age ($\beta = -.276$; $p < .05$), see column 3 of Table 1. This suggests that the effect of age on the planned retirement age is mediated by affordability of the planned retirement age. In other words, younger workers are less driven by feasibility and more focused on desirability, and are therefore more willing to retire at an early (more desirable) age that is currently not affordable (less feasible) to them. A Sobel test confirmed that affordability mediated the effect of age on planned retirement ($z = 1.952$; $p = .026$ one-tailed).

Thus, we find that younger workers plan to retire earlier than older workers, and that younger workers are more likely to plan to retire at an age that is currently not affordable to them. These findings provide support for the expectation that chronic temporal distance to retirement (age) changes the relative importance of desirability and feasibility oriented retirement goals: younger workers pay less attention to feasibility (affordability) concerns and more to desirability concerns than older workers.

We predicted that if younger workers are indeed guided by other primary goals, this should also have consequences for the effect of construal-level interventions. Therefore, in Study 2, we set up an experimental survey to test whether age-dependent differences in retirement goals change the influence of a construal-level intervention on the relative impact of affordability of the planned retirement age and an individual's desire to stop working sooner.

4. Study 2: The Effect of Construal-Level Interventions on Planned Retirement Age Reverses for Younger vs. Older Workers

In the second study we used a construal level intervention to activate either a global or a local processing mindset and examined its influence on the relative importance of desirability oriented and feasibility oriented decision attributes to the individual. We expect younger workers, for whom retirement is more distant, to have a stable mental representation that is primarily focused on the desirability of the pension age planning outcome. Older workers, for whom retirement is near, will be primarily concerned with the feasibility of the decision. Based on this, we predict these different decision aspects to receive more weight in

the decision of the respective age groups when a construal intervention induces a global mindset.

We use a respondent's work attitude as a desirability related decision attribute. A respondent's work attitude is directly linked to the desirability of not having to work, and previous literature has shown that it is more related to one's desired retirement age than to one's more realistic retirement age (Hanisch and Hulin 1991; Beehr et al. 2000, p. 209). As one of the more feasibility oriented attributes in the early retirement decision, we focus on affordability of early retirement, which is mainly driven by one's ability to save extra for retirement. When feasibility of the decision becomes more important, we expect that affordability of the outcome will exert more influence on the planned retirement age.

For younger workers whose primary goals are desirability related, we therefore predict that a global (vs. local) mindset increases the weight given to the desire to stop working, while affordability will receive less weight. We predict the opposite effects for older workers.

4.1 Sample

A total of 306 panel members from a Dutch online research panel qualified for participation in the study. We applied the same criteria for inclusion in the analysis as in Study 1.Respondents who did not participate correctly during the priming task were excluded. In the data collection there were again two conditions in terms of information provision about the costs of early retirement. The results differed between the two conditions. The concrete cost information interfered with the mindset manipulation. Therefore, we only report the results of the no-information group. As in Study 1, respondents were divided in two groups that included either younger (age 40-50, n = 142) or older respondents (age 51-60, n = 164). More details on the socio-demographic characteristics of the sample can be found in Table A2 (Appendix A).

4.2. Stimuli and procedure

In the first part of the study, participants were randomly assigned to one of the two construal level interventions, which either induced a global mindset (n = 153) or a local mindset (n = 153; adopted from Fujita et al. 2006). We presented participants a series of 30 words, such as car, beer, museum, and dog and told them we wanted their help in understanding what people thought when they encountered these words, so that we could improve their communication effectiveness in various media channels. In the global mindset manipulation, participants were asked to provide a superordinate category for each word by answering the question "A car is an example of ___", whereas in the local mindset manipulation, participants were asked to provide a specific exemplar for each word by answering the question "An example of a car is ___". Prior research indicates that the cognitive process of superordinate categorization reliably induces a high-level global mindset, whereas the process of subordinate categorization reliably induces a low-level local mindset, even in subsequent unrelated events (e.g., Fujita et al. 2006). After this mindset manipulation, participants followed the same procedure as in Study 1.

4.3 Measurement of dependent and independent variables

Planned retirement age - We used the same measure as in Study 1to capture an individual's planned retirement age, namely the difference between an individual's planned retirement age and the expected state pension age.

Affordability –The ability to save more for retirement is an important driver of the affordability of early retirement. We developed two items to measure this saving ability. We asked participants whether they had sufficient resources available to save (more) for retirement: "I can adjust my expenses so that I can save more for my retirement" and "My

income is sufficient to save extra money for my retirement". The items were scored on a seven-point scale ranging from "strongly disagree" to "strongly agree".

Desire to stop working – The desire to stop working depends strongly on one's attitude towards work. We used a measure of expected work attitude, which was adopted from the retirement attitude scale of Atchley and Robinson (1982): "I expect to be (highly) satisfied with my work in the last few years before my retirement", "I expect to enjoy my work a lot in the last few years before my retirement", "I expect my work to be worthy to me in the last few years before my retirement". These three items were scored on a seven-point scale ranging from "strongly disagree" to "strongly agree". The measurement turned out to be reliable (Cronbach's alpha = .965). For interpretation, we reverse-coded this scale so that a higher score indicates that it is desirable to the individual to retire sooner.

Control variables - We included the same control variables as in Study 1. Details can be found in Appendix A.

4.4. Pretest

First, we conducted a pretest, following previously documented procedures (e.g., Fujita et al. 2006), to verify whether the planned mindset manipulation worked. . A separate sample (all employees, working at least 30 hours per week, aged between 40 and 60, (n = 102)), completed the construal level intervention task that was followed by the Behavioral Identification Form[2] (BIF; Vallacher and Wegner 1989). The BIF score is commonly used to assess the level of abstraction at which individuals construe certain behaviors. For each of the items, individuals are asked to choose one of two options that best describes the behavior (e.g., eating); one that refers to a more abstract high-level and *why* aspect of the behavior

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[2] One item from the Behavioral Identification Form was not included in the questionnaire because of a poor fit with the institutional setting.

(e.g., getting nutrition), and the other that refers to a more concrete low-level and *how* aspect of the behavior (e.g., chewing and swallowing). We calculated a BIF score for each participant by averaging the number of high-level aspects chosen, so that higher scores indicate a greater tendency toward construing information more abstractly. Results confirmed the effectiveness of the construal level intervention. Participants in the global mindset condition had a significantly higher BIF score ($M = .62$) than those in the local mindset condition ($M = .50$; $F (1, 101) = 7.329$; $p = .008$).

4.5. Results and discussion

Hypothesis 2 states that the impact of the construal level manipulation on the influence of the decision attributes is affected by the age group. In our model, we capture this with a three-way interaction effect between the construal level intervention (global vs. local), the decision attribute (desire to stop working (H2a) and affordability (H2b)), and age. Table 2 presents the estimation results for the ordered probit model with a worker's planned retirement age as dependent variable. As hypothesized, both three-way interaction effects are significant and show opposite signs. First, we found a negative three-way interaction ($\beta = - .465$; $p < .01$) for desire to stop working sooner, which indicates that this aspect received less [more] weight for older [younger] workers under a global mindset. In contrast, we found a positive three-way interaction ($\beta = .485$; $p < .01$) for affordability, which shows that it received more [less] weight for older [younger] workers under a global mindset. Both effects are consistent with H2, but require further scrutiny to test the more detailed predictions of this hypothesis.

To further enhance interpretation, the two three-way interaction effects are graphically illustrated in Figure 2. The figure shows how the three variables in each three-way interaction influence a worker's planned retirement age. To create this graph, we predicted the planned retirement age, relative to expected state pension age, using the estimated probit model for all

(eight) combinations of age, construal level intervention, desire to stop working evaluated at the 20th and 80th percentile of the distribution (2 vs. 5 on a 7-point scale), and affordability also evaluated at those percentiles (2 vs. 5 on a 7-point scale), respectively. All other variables were held constant at the sample average, which also implied we held affordability constant when we calculated predicted values at a low and a high value for desire to stop working sooner and vice versa. The resulting predictions are presented in Figure 2.

<< INCLUDE TABLE 2 AND FIGURE 2 ABOUT HERE >>

Two aspects in the figures are particularly interesting. First, for younger workers, the desire to stop working shows a positive effect on planned retirement age only under a global mindset intervention. It has a significantly larger effect under a global than a local mindset (p < .01), showing support for H2a. For older workers, the desire to stop working shows a stronger positive effect on planned retirement age under a local construal level intervention, but this difference is not significant (p = .24). Hence, we find no support for H2b.

Second, the figures for affordability show reversed effects in line with our expectations. For younger workers, affordability shows a positive effect on planned retirement age only under a local mindset manipulation. In line with H2a, this effect is significantly more positive than under a global mindset (p = .024). For older workers, affordability shows a positive effect on planned retirement age only under a global mindset manipulation. This effect is significantly more positive than under a local mindset (p = .028), supporting H2b.

Next, to test H3 we examined whether there are significant differences in early retirement plans under a global versus a local mindset for the most relevant group of workers for policy interventions: workers with a strong desire to stop working, but who cannot afford to do so. We followed the same procedure as used for Hypothesis 2. However, we studied the model's

predictions for these workers who experience the strongest conflict between their retirement goals by comparing the predicted retirement ages only for workers who have a strong desire to stop working (the 80th percentile of the distribution) and also experience difficulty in saving more for early retirement (the 20th percentile of affordability).

Table 3 presents the predicted planned retirement ages for the two types of interventions for young and old workers. This table clearly shows that, in line with H3a, younger workers who have a strong desire to stop working but cannot afford to, indeed plan to retire earlier under a global processing mindset (planned retirement age: -2.73 (global) vs. -1.14 (local); p=.05). In contrast, for older workers with a desire to stop working but no ability to save more, a global processing mindset increases their planned retirement age (planned retirement age: 0.48 (global) vs. -2.41 (local); $p < .01$). This shows that the difference between global and local processing are strongest when feasibility and desirability goals are in conflict so they would drive an individual's planned retirement age in opposite directions.

<< INCLUDE TABLE 3 ABOUT HERE >>

5. GENERAL DISCUSSION

We investigated how (psychological) distance drives heterogeneity in retirement goals, and its consequences for the impact of possible interventions. In particular, we studied the joint effects of chronic temporal distance toward retirement (i.e., age) and construal level interventions (i.e., activating a global vs. a local mindset) on the relative importance of feasibility and desirability retirement goals ("when do I want to retire" vs. "when can I afford to retire") in the decision on a retirement age.

First, we found that chronic temporal distance (i.e., age) drives heterogeneity in retirement-age goals. In Study 1, we found that younger workers, more than older workers,

plan to retire at an age that is currently not affordable to them, indicating that younger workers weigh feasibility goals relatively less and desirability goals relatively more. A subsequent mediation analysis showed that these differences in affordability of the retirement plans explain why younger workers plan to retire earlier than older workers. Second, in Study 2, we found that the influence of situationally induced psychological distance (i.e., activating a global vs. a local mindset) on the relative importance of desirability versus feasibility retirement goals is moderated by chronic temporal distance to retirement (i.e., age). We argue that this is driven by an age-dependent shift in the mental representation of the decision and the corresponding primary goals, as was shown in Study 1. In particular, we found that global processing increases the impact of desirability retirement goals for younger workers, while it increases the impact of feasibility retirement goals for older workers. As expected, our findings showed that local processing has the opposite effects on goal activation.

5.1. Theoretical Implications

Our results are important for research on Construal Level Theory in several ways. First, when examining the effects of global versus local processing, it is important to take into account which goals are chronically perceived as primary and secondary. Planning decisions for the future often touch on trade-offs between desirability and feasibility goals. Our results show that in such planning contexts, the temporal distance toward the decision affects the primacy of feasibility (versus desirability) goals, and therefore the attribute that receives more weight under a global (vs. local) mindset. We argue that an individual's chronic construal level determines the rather stable mental representation of the decision. Situationally induced changes in construal level will then highlight different elements within this mental representation, shifting attention between the primary and secondary goals within the (pre-existing) mental representation. This provides an overarching framework for the previous

studies that also reported that the consequences of global (vs. local) processing should be considered in relation to an individual's values and personality traits, such as what values are central for the individual (Kivetz and Tyler 2007; Verplanken and Holland 2002) or an individual's natural tendency to focus on either promotion or prevention related concerns (e.g., Lee et al. 2010).

This has immediate consequences for the effectiveness of construal level interventions aimed at solving self-control conflicts (e.g., Fujita et al. 2006, Fujita and Han 2009, Fujita and Roberts 2010). While research in this domain has found that global processing generally induces individuals to choose the option that is beneficial in the long-term, our results show that this is not always the case. In particular, when individuals face a trade-off between desirability goals with consequences for the relative short-term and feasibility goals with consequences for the relative long-term, as is the case for the retirement-age decision, an individual's chronic temporal distance determines which goals are primary to the decision and also which decision attributes will become more influential under a global mindset. This idea is in line with the "self-control dilemma", which is defined as a situation in which "the optimal choice is not transparent and indulgence is inherently valuable and not dominated by the farsighted option" (Keinan and Kivetz 2008, p. 688). In all these situations, a higher construal level could shift attention to the more "indulging" attribute with its short-term benefits.

5.2. Policy implications for retirement planning and interventions

Our findings also have important implications for research in the domain of retirement planning. Several studies have reported that financial and work-related factors influence an individual's (planned) retirement age (e.g., Wang and Shultz 2010), and a few other studies report insignificant or small effects for financial aspects and for work-related aspects, such as

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general job satisfaction (e.g., Adams 1999; Taylor and Shore 1995). Our findings are important in understanding the results of these studies, as we show that workers may weigh these aspects differently, depending on their age and the level of abstraction at which they (are situationally induced to) construe the decision. For example, even if older workers consider affordability as the most central goal in the decision for a retirement age, which our results imply, they may still not consider this goal when the decision-context induces them to focus on lower-level secondary attributes (Study 2).

From a practical point of view, our results show that a global or local mindset may shift attention to a more desirable or a more feasible retirement age, depending on the age of the individual. Financial planners who need to learn about their customer's retirement preferences should acknowledge these construal level influences and can also use them to better understand customer preferences. A financial planner can stimulate younger workers to focus on a retirement age that seems affordable to them, by inducing them to think about the decision in a local mindset. On the other hand, a global mindset, would be preferable if the aim is to reveal workers' most desired retirement age. The opposite holds for older workers. For them, a global mindset helps to make the decision that takes feasibility of the outcome into account, even when they have a strong preference to retire earlier.

As large parts of the information search process for pension savings and retirement decisions takes place online, the design of online information portals should receive attention. For example, the mood induced by the website could influence specific mindsets (Gasper and Clore 2002), but also the provision of very concrete information about the steps to be taken and the corresponding costs might lead to more local processing modes, affecting the retirement plans of the visitors.

5.3. Limitations and future research

Our research poses several interesting avenues for future research. In our study, we used an unrelated priming task (categories vs. exemplars) to situationally induce people in a specific mindset. From a practical point of view, it would be interesting to investigate whether similar results would be obtained with other procedures that promote a global (vs. local) mindset, such as asking workers to visualize their decision from a third rather than a first-person perspective (e.g., Trope and Liberman 2010, p. 447; Pronin and Ross 2006) or inducing workers with a positive versus negative mood (Gasper and Clore 2002).

Our study highlighted the difference between primary and desirability goals and between secondary and feasibility goals. This could well be a more frequent phenomenon. One example could be the selection of courses to follow. If the course is more distant, desirability goals (e.g., this course will look good on my CV) might be primary, whereas if the course is about to start, the feasibility of the course (e.g., I can pass this course with reasonable effort) might be primary. We hope that our study will stimulate a broader exploration of the differences between primary (secondary) versus desirability (feasibility) goals in order to further improve our understanding of the influences of chronic versus situationally induced construal level mindsets.

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Figure 1: Conceptual Framework illustrating the different roles of chronic versus situational construal level effects
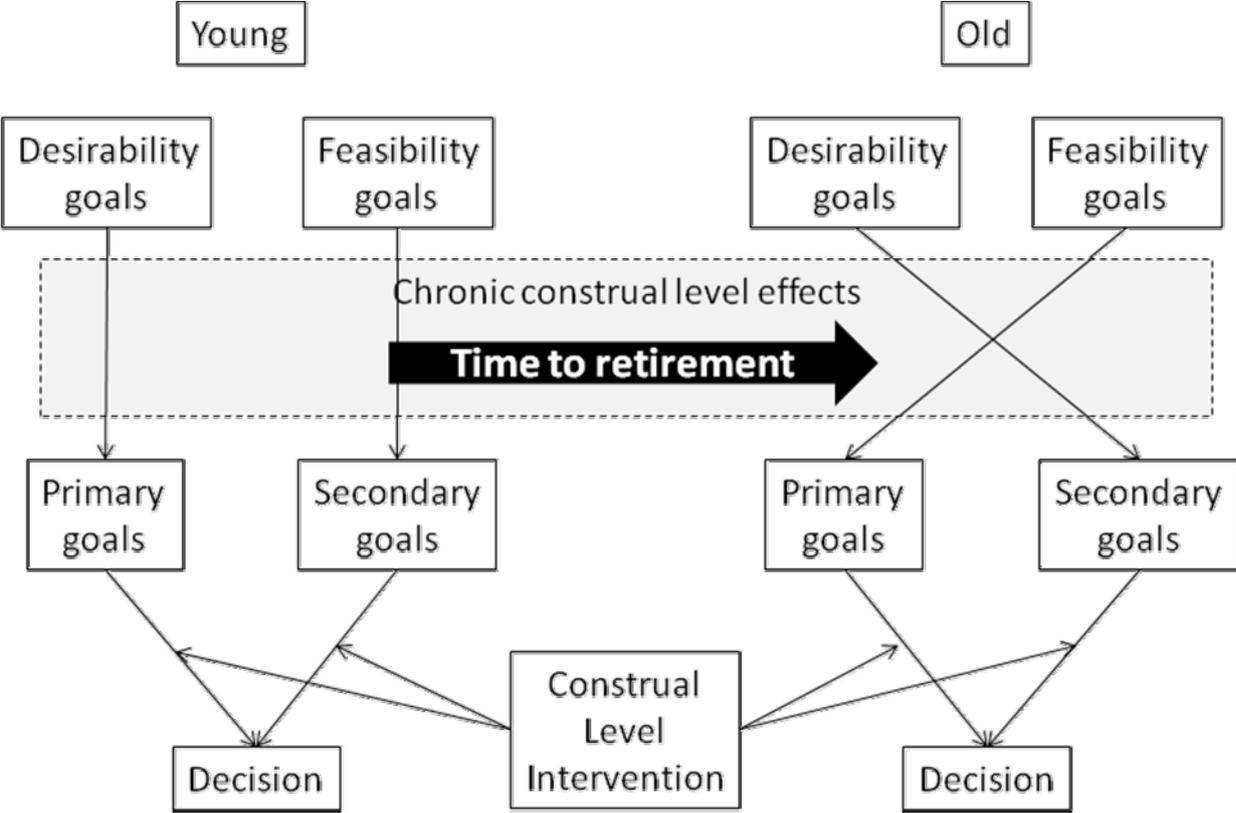
Figure 2:

Predicted planned retirement age relative to expected state pension age.

Illustration of the three-way interaction effects for desire to stop working and for affordability

Note: Figures show predicted values for the difference between planned retirement age and expected state pension age.

Table 1: Estimation results ordered probit models (Study 1)

	Affordability of planned retirement age			Planned retirement age*			Planned retirement age*		
	β	Std. error	p	β	Std. error	p	β	Std. error	p
Age (younger vs. older)	**-.362**	**.142**	**.011**	-.212	.141	.132	**-.276**	**.139**	**.047**
Affordability of planned retirement age				**.188**	**.062**	**.003**			
Control variables									
Gender	-.237	.176	.178	.108	.173	.533	.061	.172	.724
Education	-.030	.035	.388	-.020	.035	.557	-.025	.035	.463
Partner	-.247	.187	.187	-.374	.185	.043	-.412	.184	.025
Age – age partner	-.006	.012	.596	.012	.011	.295	.010	.011	.367
Health	-.091	.109	.407	-.189	.108	.081	-.199	.108	.064
Main wage earner	.017	.269	.950	-.161	.264	.543	-.159	.264	.546
Income	.110	.108	.308	-.060	.106	.572	-.042	.105	.688
Income missing	.700	.428	.102	.007	.422	.986	.115	.420	.784
Manage current income	.506	.092	.000	-.278	.093	.003	-.179	.087	.039
External push	-.098	.049	.046	-.013	.049	.790	-.031	.048	.522
No of observations		245			245			245	
Pseudo R-square (Cox & Snell)		.234			.117			.084	

* Relative to anticipated state pension age

Table 2: Estimation results ordered probit model (Study 2)

	Planned retirement age*		
	β	Std. error	P
Age (Younger vs. Older)	.034	.745	.964
Construal Level Intervention (Global vs. Local Mindset)	.671	.658	.308
Dummy Global * Dummy Younger	-.196	.969	.840
Desire to stop (sooner)	-.190	.104	.068
Desire to stop * Dummy Younger	.187	.130	.152
Desire to stop * Dummy Global	.153	.129	.238
Desire to stop * Dummy Younger * Dummy Global	**-.465**	**.175**	**.008**
Affordability	-.019	.076	.808
Affordability * Dummy Younger	-.263	.115	.022
Affordability * Dummy Global	-.216	.101	.032
Affordability * Dummy Younger * Dummy Global	**.485**	**.158**	**.002**
Control variables			
Gender	.029	.139	.832
Education	-.054	.036	.137
Partner	-.209	.159	.190
Age – age partner	.007	.009	.466
Health	-.142	.095	.135
Main wage earner	.085	.211	.686
Income	.118	.098	.229
Income missing	.426	.353	.227
Manage current income	-.007	.085	.934
External push	-.081	.048	.089
No of observations		306	
Pseudo R-square (Cox & Snell)		.207	

* Relative to anticipated state pension age

Table 3: Predicted differences (in years) in planned retirement ages between those in a global versus a local situationally induced construal level mindset.

| | Construal level intervention | | |
	Global processing	Local processing	p-value H0: difference = 0
Younger workers	- 2.73	- 1.14	.052
Older workers	0.48	- 2.41	.001

Note: Predictions are calculated for the 80th percentile for desire to stop working and the 20th percentile for affordability. This is done separately for all four combinations of a global versus a local processing mindset and younger versus older workers. Values in this table show the predicted number of years that workers plan to retire before (minus) or after (plus) the expected official state pension age. The p-value shows the significance level of the difference between global and local processing for each age group.

APPENDIX A

Table A1: Measurement of control variables

	Measurement	Scale
External push	I expect that I will not be able to work in the last few years before the state pension age, because of external circumstances such as poor health or redundancy. I expect that external circumstances over which I have little control will force me to stop working before the state pension age. I expect that circumstances over which I have little control will probably force me to stop working before the state pension age.	1 = strongly disagree; 7 = strongly agree (Cronbach's alpha: Study 1 = .912; Study 2 = .904)
Gender	What is your gender?	0 = male; 1 = female
Partner	Are you living together with a partner?	0 = no; 1 = yes
Age partner	If yes, what age is your partner?	n/a
Health	In general, how is your health ?	1 = excellent; 5 = poor
Main wage earner	Are you the main wage earner in your household?	0 = no; 1 = yes
Manage on current income	How well do you expect to manage your financial situation given the total income of your household in the coming 12 months?	1 = very difficult; 5 = very easy
Education	What is the highest level of education you completed?	Primary education Pre-vocational education Pre-university education Senior vocational training Higher professional education University
Income	What is the net monthly income of your household?	<€1000 €1000-2000 €2000-3000 €300-5000 >€ 5000 Don't want to say

Table A2: Sample means for socio-demographic characteristics (Studies 1 and 2)

	Study 1	Study 2
Gender (1 = female)	0.33	0.38
Education (in years)	13.91	14.01
Partner (1 = yes)	0.76	0.72
Age – age partner (only for those with partner)	1.62	1.65
Health	2.07	1.96
Main wage earner (1 = yes)	0.90	0.90
Income missing	0.13	0.21
Income < €1000	0.00	0.01
Income €1000-2000	0.14	0.18
Income €2000-3000	0.39	0.31
Income €3000-5000	0.28	0.26
Income > €5000	0.07	0.04
Manage current income (1-5)	3.46	3.29
External push (1-7)	3.50	3.26
Observations	245	306