



Don't ask a chameleon about its color: Context effects on self-reported career-orientation and work-life-balance

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ABSTRACT

Temporarily enhanced accessibility of particular aspects of one's identity (e.g., via priming or social comparison) is known to affect contents of the "working self", as well as subsequent self-descriptions. Building on findings of state-dependent retrieval and embodiment, it is demonstrated that similar effects emerge from being in one location or another as context cue. In Experiment 1, $N = 60$ students filled in a questionnaire on career-leisure orientation either on campus or in a café. All dependent measures (behavior intentions, general value, and self-descriptive traits) showed significantly higher career-orientation in the campus condition. Experiment 2 conceptually replicates these findings assessing attitudes of a non-student sample ($N = 80$) of gainfully employed parents who filled in a questionnaire either at work or at home. Half of them did so under the belief that false responses will be detected (bogus pipeline paradigm), which eliminated the effect. Context-driven accessibility effects thus seem to be open to conscious control. Implications for the validity of questionnaires in applied organizational survey research are discussed.

Key words: priming, flexible self-concept, social desirability, state-dependent retrieval

1 Introduction

When psychologists seek to learn something about people, the most obvious way appears to ask them, trusting that they are capable and willing (Strack, 1994) to provide truthful information about their traits, attitudes, preferences, behavior intentions, and the like. In applied research, both of these preconditions are frequently taken for granted, although social desirability effects have been critically discussed in the literature long since (for reviews, see Krumpal, 2013; Moorman & Podsakoff, 1992; Nederhoff, 1985; Richman, Kiesler, Weisband & Drasgow, 1999). An additional - far less discussed, but even more fundamental - precondition for individuals sharing "true" information about themselves is that such general truths do exist in the first place. The idea of the self-concept as a stable and enduring mental structure, summarizing a person's beliefs and experiences on who he or she basically is, may fit well with lay persons' views of personality, but has been challenged by social psychologists throughout the decades (Baron, Byrne, & Branscombe, 2006). James' (1890) suggestion of multiple social selves or Markus' and colleagues' theories on context-dependent self-schemata and possible selves (Markus, 1977; Markus & Wurf, 1987) stress the malleability and dynamic responsiveness of the self (cf. Satir, 1978). More recent studies from the situated social cognition approach (Ackerman, Nocera, & Bargh, 2010; Barsalou, 1999; 2008; Clark, 1997; Ijzerman & Semin, 2009; Smith & Semin, 2007) suggest that all kinds of seemingly arbitrary factors may influence social judgments, including self-judgments. According empirical findings will be briefly reviewed in the following section.

The aim of the present work is to link these findings to applied personnel and organizational survey research, as is frequently conducted within a wide range of projects (e.g., employee needs assessment, risk analysis, health promotion, and the like), and to show that seemingly trivial aspects of a situation, such as being in a particular location and context, may substantially alter participants' self-reported attitudes and behavior intentions. Given that comprehensive organizational programs often build upon the results of such surveys, context biases would be of high practical impact. Before presenting the concrete hypotheses to be tested here, we wish to give a brief overview of the underlying theoretical concepts and prior research.

2 Self-Conceptions as Multiple and Context-Sensitive Devices

If the self is regarded as a multidimensional meaning space (Greenwald & Pratkanis, 1984) encompassing multiple facets, these will naturally vary in relative importance - depending on their adequacy, and forming a "continually active, shifting array of accessible self-knowledge" (Markus & Wurf, 1987, p. 306). As a consequence, self-descriptions should be subject to all kinds of accessibility effects, with those contents associated with the current "working self" being temporarily more influential (Kihlstrom & Cantor, 1984; Linville & Carlston, 1994; Markus & Nurius, 1986; Niedenthal, Setterlund, & Wherry, 1992).

Cognitive accessibility refers to the readiness with which the content of mental representations can be retrieved and are likely to be applied in social judgments (Aronson, Wil-

son & Akert, 2008). It may be enhanced by salience or distinctiveness within a given social context, such as being a member of a minority category (Klauer, Wegener & Ehrenberg, 2002; Taylor, Fiske, Etcoff & Ruderman, 1978), or by general accentuation effects in social categorization (Turner, 1985), by goal orientations (Markus & Kunda, 1986), or by social comparison focus (Hanko, Crusius & Mussweiler, 2010). A substantial amount of research in the field has focused on the culturally relevant dimension of interdependence vs. independence (e.g., Markus & Kitayama, 1991; Trafimow & Finlay, 2001; Trafimow, Triandis & Goto, 1991). Although culture can be understood as a chronic source of activation for self-construals, individualistic and collectivistic elements of self-construal vary in temporal accessibility and may be primed by recent activation (e.g., Gardner, Gabriel, & Lee, 1999; Verplanken, Trafimow, Khusid, Holland, & Steentjes, 2009). For instance, bicultural students in Hong Kong have been shown to describe themselves stressing differences vs. similarities to others depending on whether the question was asked in English (priming individualistic self-construals) or in Chinese (priming collectivistic self-construals; Trafimow, Silverman, Fan, & Law, 1997). Kühnen, Hannover and Schubert (2001) report evidence that priming independence vs. interdependence does not only affect mental content, but can also stimulate context-dependent vs. -independent processing modes.

An interesting question is to what extent such effects are consciously accessible, controllable or (e. g. in the case of addressee effects) even intentional. Hannover (1997, Exp. 2) could show that individuals assimilate their self-description in terms of being typically Eastern vs. Western Germans, when the respective self-construal is activated automatically (i.e., by a prior general descriptive task, or by an experimenter speaking dialect), but that they correct for this influence when the activation is made more obvious (i.e., by a prior explicit social comparison). Thus, although originally unintentional, it seems that such accessibility effects can be consciously controlled for if participants become aware of a potential influence (cf. Bargh, 1984). We will get back to this issue when deriving the hypotheses to be tested in Exp. 2.

3 Flexible Self-Descriptions as an Instance of State-Dependent Episodic Memory and Embodiment

Another important factor affecting relative accessibility in general is mood, and mood-dependent retrieval, in turn, represents a well-established phenomenon in memory research: Retrieval is better if mood is congruent across learning and retrieval phase rather than incongruent (Bower, 1981; see Bower, 1991, for a review), and the effect extends to self-generated stimuli (e.g., Eich & Metcalfe, 1989). Analogous effects of state-dependent retrieval have been shown for drug-induced inner states (Goodwin, Powell, Bremer, Hoine, & Stern, 1969). These findings are in line with the principle of encoding specificity (Tulving & Thomson, 1973): The more overlapping features there are between encoding and retrieval, the more cues are available to enhance the probability of retrieval from long-term memory. The effect can also be elicited by physical cues

such as odors (Aggleton & Waskett, 1999) or by the environment at learning and retrieval: Godden and Baddeley (1975, Exp.1) let experienced divers learn word lists either underwater or on dry land and administered a subsequent free recall task either underwater or on dry land. As expected, recall performance was substantially better when learning and test environment were congruent rather than incongruent.

These findings indicate that environmental congruency may enhance retrieval, thus forming a basis for the central hypothesis to be tested here. Similar to word lists, primary episodic experiences of oneself as feeling, thinking and behaving in a particular way become most likely associated with whatever features characterized the concrete situation they "belong to", e. g., particular interaction partners, mood-states, social role accessories, odors, or locations. If these features, or cues, happen to be present in a future situation, they should enhance retrieval of associated aspects of the self, e. g., an "ambitious student-me" on campus, or a "chilled leisure-me" activated by the nice smells and general surroundings in a café. In other words, context cues are likely to enhance the temporary accessibility of associated self-descriptive autobiographic knowledge, in turn affecting all kinds of self-report measures. This assumption seems in line with Rubin's (2006, p. 278) model on the nature of episodic memories, i. e., that "all episodic memories are formed by the interaction (...) of the basic systems (...), constructed (...) from sensory, language, emotion, and other systems, each of which uses fundamentally different structures and processes for fundamentally different kinds of information (i. e., variable embodiment in Barsalou's, 1999, terms)".

The fundamental idea that "cognition is situated – not isolated in inner representations and processes but causally interdependent with the current physical and social environment" (Semin & Smith, 2007, p. 134) provides a larger framework for our assumption that being in a particular location will influence self-descriptions in an assimilative manner by including typical sensory and kinesthetic or motor components, that is, embodiment (Barsalou, 1999; 2008; Barsalou, Niedenthal, Barbey, & Ruppert, 2003; Clark, 1997; Smith & Semin, 2007). It has been demonstrated that movements of approach and avoidance (Cacioppo, Priester, & Bernston, 1993) or agreement (Wells & Petty, 1980) affect the evaluation of associated objects, and that upright vs. slumped body postures can induce more complex emotions such as pride and shame (Stepper & Strack, 1993). We suggest that being in different environments is likely to activate different typical gestures or postures. For example, when people sit in a café, they may naturally assume a more relaxed body position and facial expression in contrast to, for example, being somewhat more inclined to sit upright and generally act in a more disciplined way on campus. This, in turn, should not only affect their current self-perception as a rather relaxed vs. disciplined person, but also stimulate the retrieval of congruent episodic memories, providing an additional, deeper - though selective - basis for corresponding self-descriptions.

4 Experiment 1

The hypothesis to be tested in Exp. 1 predicts that the location in which self-reports are provided will affect their content in an assimilative manner. Half of the participants will fill in a questionnaire on career- vs. leisure orientation on campus, the other half in a café. We predict that participants providing their responses on campus will report higher mean career-orientation compared to those responding in a café on each of our dependent measures, i.e., behavior intentions in critical situations, attitudes towards general values, general career-orientation and self-descriptive trait-ratings.

4.1 Method

Thus, we realized two experimental conditions that only varied with regard to the location in which the questionnaire was administered. The topic of the questionnaire was career- vs. leisure-orientation, and it was to be filled in either on campus - a rather modern building situated in a media business park in central Cologne - or in a nice café nearby, according to experimental condition.

4.2 Participants and procedure

A sample of $N = 60$ students (34 female, 26 male, age $M = 23.60$, $SD = 2.38$) was recruited to participate in a "short survey on value orientations" via leaflets and personal contact. The experimenter then contacted them later via telephone and randomly assigned them to one of the two experimental conditions by incidentally suggesting to meet on campus or in a café, respectively, so that they could fill in the questionnaire in her presence. Male and female participants were assigned to equal proportions to both conditions. After having completed the questionnaire, participants were thanked and fully debriefed.

4.3 Dependent measures

The questionnaire consisted of a variety of items intended to reflect different levels of abstraction and using different response scales assessing career-orientation. Three items assessed behavior intentions in critical incidents using a five-point-Likert scale (e.g., "You have planned to spend the weekend with friends. In your job, you are offered a free coaching seminar for exactly that weekend. What do you do?" - Certainly decide for my friends / rather decide for my friends / undecided / rather decide for the seminar / certainly decide for the seminar), and their mean formed an index of career-oriented behavior intentions (Cronbach's alpha = .53). Four items assessed behavior intentions in a forced-choice-situation (e.g. "You have won a nice trip. Right now, there is a lot to do in your job and you have a chance on a promotion. In order to make the trip, you would have to take time off. What do you do?" take time off / cancel the trip), and an index was calculated to reflect the number of career-oriented decisions, thus ranging from 0 to 4. This first part of the questionnaire included a number of irrelevant filler statements on general value orientations (e.g., "I think loyalty is important"), and ended with a global priority statement on career-orientation ("At the moment, career is much more important to me - career is more important to me - indifferent - leisure is more important to me - leisure is much more important to me").

Eight self-descriptive trait ratings (e.g., "achievement oriented", "disciplined", to be rated on five-point Likert scales; Cronbach's alpha = .61) were assessed in a second part of the questionnaire before participants were asked to indicate their gender and age, thanked and debriefed.

4.4 Results and Discussion

To test the general hypothesis that self-reported career-orientation is affected by the environment in which the questionnaire was administered, a MANOVA was conducted in order to examine effects on all four dependent measures simultaneously (mean on Likert-type situations, score on forced-choice situations, global priority statement, mean trait ratings). This analysis yields an overall significant effect of experimental condition ($F(4,55) = 3.10$, $p < .05$, $\eta^2 = .18$). Figure 1 illustrates the means for each of the dependent measures as a function of experimental condition.

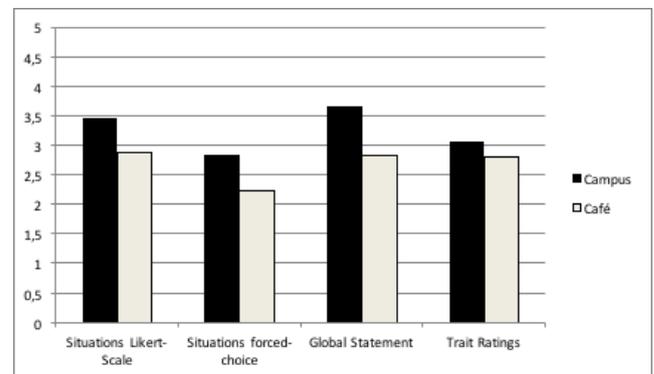


Figure 1: Effects of context on career-orientation on the dependent measures in Exp.1 ($n = 30$ per condition).

Note: The index on forced-choice situations has a range from 0 to 4; all other measures range from 1 to 5. Standard deviations are provided in the text.

Simple contrasts reveal that the difference between experimental groups is significant for each of the dependent measures, that is, the effect did not vary according to response format or level of abstraction. When confronted with a critical situation, participants rather decided for the career-oriented alternative, when they gave their responses on campus as compared to in a café. This was true for situations requiring a Likert-type response ($M_{\text{campus}} = 3.46$, $SD = 0.66$ vs. $M_{\text{café}} = 2.87$, $SD = 0.92$; $F(1,58) = 8.08$, $p < .01$, $\eta^2 = .12$), as well as for those requiring a forced-choice decision: Participants who had filled in the questionnaire on campus on average decided for the career-oriented alternative in $M = 2.83$ ($SD = 0.99$) out of four cases, whereas those who had given their responses in the café chose the career-oriented option only in $M = 2.23$ ($SD = 1.07$) cases ($F(1,58) = 5.09$, $p < .05$, $\eta^2 = .08$). Similarly, participants indicated that career was much more important to them when asked for according general priorities on campus ($M = 3.67$, $SD = 0.99$) rather than in a café ($M = 2.83$, $SD = 1.23$; $F(1,58) = 8.30$, $p < .01$, $\eta^2 = .13$). Finally, participants described themselves as more career-oriented when providing self-descriptive trait-ratings on campus ($M = 3.06$, $SD = 0.42$) than when doing so in a café ($M = 2.81$, $SD = 0.52$; $F(1,58) = 4.10$, $p < .05$, $\eta^2 = .07$).

Taken together, significant location effects emerged on all four dependent measures: When participants filled in the questionnaire on campus, they described themselves as more career-oriented than when they filled in the same questionnaire in a café, a surrounding associated with leisure. This effect could be demonstrated on all levels of abstraction and with different response formats. We do not wish to suggest that these systematic differences in self-reported career-orientation reflect conscious or even intentional distortions. Rather, we consider it likely that they go back to a context-dependent selective accessibility of different “me’s”. In search for an answer on questions such as “How would I decide?”, or “What am I generally like?”, the current physical environment (including odors or proprioceptive body signals) may serve as a retrieval cue for corresponding self-related episodic memory. Currently accessible self-knowledge then forms the - selective - basis for the self-description provided.

One may criticize that Exp. 1 relies on a rather homogenous student sample, raising concerns with regard to generalizability. It could be the case that the self-concept of students is not yet very consolidated in terms of career-orientation, so that they represent a group that is particularly prone to context effects. A first aim of Exp. 2 was therefore to probe the external validity of the above findings by conceptually replicating them with a non-student sample and using a different realization of the independent and dependent variables.

A second and central aim of Exp. 2 was to further explore the nature of the processes underlying the effect. In particular, we were interested in whether individuals are able to correct for the location bias when made aware of potential biases in general. Hannover (1997, Exp. 2) found that participants’ self-descriptions were only affected by a temporarily salient social category membership if it had been activated automatically, but not if it had been activated in a more explicit way. Hannover’s participants could obviously control for the effect of salient comparison standards on their self-description when they became aware of a potential bias. We therefore hypothesize that location effects such as the ones found in Exp. 1 will emerge under standard conditions (i.e., higher career-orientation when responding in a work-related rather than a leisure/family-related context), but that this effect should disappear once participants become aware of and are motivated to avoid any bias.

5 Experiment 2

5.1 Rationale, Overview and Hypotheses

The major aim of Exp. 2 was to replicate findings from Exp. 1, and to test the assumption that participants are able to correct for context effects on their self-reports, once they realize that their responses might be deteriorated, and are motivated to respond truthfully. A popular procedure to reduce biased responding has been suggested by Jones and Sigall (1971). In their classic study introducing the bogus pipeline paradigm, they used an impressive apparatus ostensibly able to measure participants’ true attitudes on the basis of physiological data, thus providing a “pipeline” to the true inner states that improves the accuracy of self-

reports. It has been shown in a wide range of studies that results obtained under bogus pipeline conditions are less prone to social desirability effects when compared to standard conditions: People admit higher smoking rates (see Aguinis, Pierce & Quigley, 1993, for a review), express stronger explicit prejudice (Sigall & Page, 1971; Imhoff & Banse, 2009; Nier, 2005) and negative affect (Sigall & Page, 1972), and report generally higher levels of undesirable attitudes and behaviors, when they believe that lies will be uncovered (for a meta-analytic review, see Roese & Jamieson, 1993). As for today, however, we consider the credibility of the original cover story somewhat at stake. Since the seventies, public accessibility and public awareness of scientific procedures and insights have substantially increased. It seemed pretty challenging to convince participants that psychologists can indeed measure peoples’ true attitudes that way without anyone knowing. We therefore decided to choose a simpler variant that would still fulfill our purpose, i. e., by claiming that we will find out whether participants lie to us (mock lie detection).

The issue of the study was introduced as a survey on “work-family balance”, and participants were asked to indicate their agreement to a number of attitude statements on the topic either at home or at their work place. Half of the participants in each context condition (here: responding at work vs. at home) were randomly assigned to a mock lie detection condition (for details, see below). In the standard condition, we expect to replicate the findings obtained in Exp. 1, that is, participants should present themselves as more career-oriented when responding at work, compared to participants filling in the questionnaire at home. If participants under mock lie detection conditions become aware of potential biases, and are motivated to control them, this context effect should be substantially diminished.

5.2 Method – Participants and procedure

All participants were at least part-time gainfully employed and had at least one child living in their household ($M = 1.80$, $SD = 0.81$), so that the work-family-balance issue was subjectively meaningful and applicable to them. Participants were recruited via neighborhood and colleagues of students’ parents. The sample consisted of $N = 80$ adults between 22 and 59 years of age ($M = 44.65$, $SD = 9.02$), 42 were male and 38 female. After they had agreed to participate, arrangements were made that the experimenter could meet them either at their workplace ($n = 40$) or at their home ($n = 40$), so they could fill in the questionnaire. Thus, we realized a conceptual replication of the operationalization of career- vs. leisure-related contexts differing from those employed in Exp. 1. For practical reasons, not all participants could be met at their workplace, and it was thus unfortunately not possible to assign them to context conditions following a strict random procedure. The experiment thus runs a risk of a priori differences between these two subsamples. A posteriori analyses did, however, yield

no indication for any such differences¹. We will come back to the issue in the Results and Discussion section.

The second and central independent factor was the bogus pipeline manipulation. Within each context condition, it was randomly determined for half of the participants whether they filled in the questionnaire under standard vs. under bogus pipeline conditions. As a cover story, the latter were told that it was well-known long since that not telling the truth is accompanied by physiological arousal. Only recently, however, US-researchers had found out that a unique combination of systolic and diastolic blood pressure and heart rate typically emerged in that case, and that this lie detection procedure was really valid and thus even used in US court trials since 2010. Because some people might be tempted to provide euphemistic responses in the context of work-family-balance issues, we therefore wished to employ this procedure in order to make sure that the data obtained were really reliable and interpretable. After participants had given their consent, a standard blood pressure meter was attached to their left arm, and heart rate and blood pressure were taken once before and once after they filled in the questionnaire. The results were written down in a table with ostentation. After having completed the questionnaire, participants were probed for suspicion, thanked and thoroughly debriefed. Even after debriefing, none of the participants stated to have had any suspicion about the lie detection procedure during the experiment.

5.3 Dependent measures

In order to provide a conceptual replication of Exp.1 using a different measure, we constructed attitude statements on career vs. family priorities (e.g., "I am willing to work early in the morning or late in the evening", "It is important to me to take part in my kids' special events, e. g., school performances."). Participants indicated how much they agreed with each statement on six-point Likert scales as part of a larger questionnaire. Ratings on the eight items forming our scale (Cronbach's alpha = .70) were aggregated to form a mean index of career-orientation.

5.4 Results and Discussion

This index of career-orientation was submitted to a 2 (at work vs. at home) x 2 (standard vs. bogus pipeline)-factorial ANOVA. This analysis yields the predicted main effect of context ($F(1, 75) = 6.49, p < .01, \eta^2 = .08$): Participants expressed a stronger career-orientation when filling in the questionnaire at work ($M_{\text{standard}} = 3.28, SD = 0.53; M_{\text{bogus pipeline}} = 2.93, SD = 0.41$) than when doing so at home ($M_{\text{standard}} = 2.83, SD = 2.82; M_{\text{bogus pipeline}} = 2.82, SD = 0.53$). The main effect of the bogus pipeline manipulation ($F(1, 75) = 2.66, p = .11, \eta^2 = .06$) as well as the predicted two-way interaction ($F(1, 75) = 2.30, p < .06$ (one-tailed), $\eta^2 = .03$) failed to reach significance. However, Figure 2 illustrates and simple contrasts confirmed that participants report significantly higher career-orientation at work compared to at home under standard conditions ($t(38) = 2.79,$

$p < .01$). Under bogus pipeline conditions, this context effect was eliminated ($t(38) = 0.75, p = .46, ns.$).

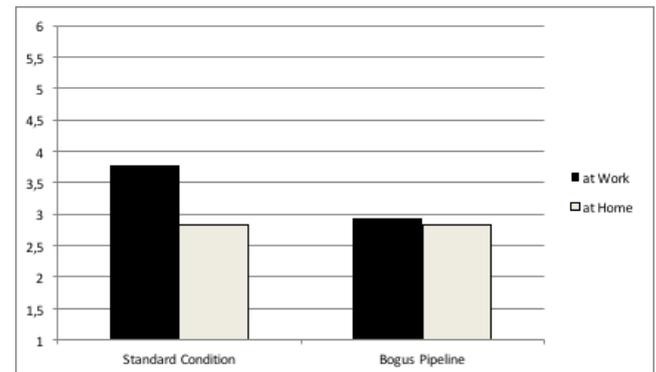


Figure 2: Effects of context and bogus pipeline manipulation on mean career-orientation in Exp.2 ($n = 20$ per condition).

Note: Standard deviations are provided in the text.

Taken together, we could replicate the effect of context on self-reported career-orientation under standard conditions, but it seems that participants correct for this bias when filling in the questionnaire under bogus pipeline conditions. Still, even setting ethical concerns aside, we would not consider bogus pipeline procedures a recommendable remedy against context effects in basic or applied research. After all, the nature of bogus pipeline effects is not yet fully understood (for a review, see Rosie & Jameson, 1993), and from the present data, we cannot draw definite conclusions on the underlying processes either. It seems likely that our participants were generally thinking harder about their responses, because they were highly motivated to give "true" ones. Thus, they may have incorporated more elaborate processing, instead of heuristically relying on what comes to mind quickly and easily (cf. Schwarz et al., 1991; Tversky & Kahneman, 1973). Second, it may be that the bogus pipeline procedure more directly enhanced participants' awareness of priming effects of their current surrounding on their response behavior: Being sensitized, they might then have been motivated to avoid bias and engage in correction processes (cf. Hannover, 1997, Exp. 2). This does *not* imply that participants in the standard condition were likewise aware of the bias and just willing to accept it, or even strategically used their surrounding as an informative cue for what might be generally socially desirable.

Unfortunately, we did not systematically protocol total time per participant, but all four experimenters reported that filling in the questionnaire under bogus pipeline conditions took about twice as long compared to standard conditions. This may be regarded as first evidence in favor of more elaborate search and retrieval processes, providing a broader information base for responding. Global assessments of a favorable response style are unlikely to be considered for each single item anew and should thus be far less time-consuming. However, we regard it as promising to further pursue the exact processes stimulated by bogus pipeline procedures in general, and in the present context

¹ Both groups did not differ in terms of age ($M_{\text{work}} = 46.05, SD = 7.13, M_{\text{home}} = 43.25, SD = 10.48, t(78) = -1.40, p = .17$), gender composition (Chi-Square ($df = 1$) = 0.80, $p = .37$), or working-hours per week ($M_{\text{work}} = 39.25, SD = 11.63, M_{\text{home}} = 38.63, SD = 10.65, t(78) = -0.25, p = .85$). The only marginally significant difference between the two subsamples emerged in number of

children ($M_{\text{work}} = 1.98, SD = 0.86, M_{\text{home}} = 1.63, SD = 0.74, t(78) = -1.95, p = .06$), but since the direction of this difference suggests effects opposite to hypotheses, it does not provide an alternative explanation if the predicted effect patterns are observed.

in particular. After all, the paradigm relies on the basic assumption that it is more threatening to be caught giving euphemistic responses rather than to admit undesirable traits, attitudes, or behavior intentions.

A major limitation of Exp. 2 is that, for practical reasons, it was not possible to fully randomly assign participants to the context conditions. It can therefore not be ruled out that there were a priori differences between the two groups that contribute to the context effect in the standard condition. Two empirical arguments stand against this: First, there were no systematic demographic differences between the two sub-samples (see Footnote 1). Second, and more importantly, there was no indication of attitude differences in the bogus pipeline condition, as one would expect if there were a priori differences between both groups (those who could be met at their workplace and those who couldn't). However, a replication of the present findings using a fully random assignment procedure is of course desirable.

6 General Discussion

Many factors are known to temporarily enhance the accessibility of particular aspects of self-relevant knowledge over others, for example, anticipated interests of the addressee (Norenzayan & Schwarz, 1999), salient social category memberships (Hannover, 1997), or salient cultural dimensions (Gardner et al., 1999; Verplanken et al., 2009). Building on findings on state-dependent retrieval as well as on social embodiment, we could show that similar effects arise from just being in different locations. In Exp. 1, students were asked to fill in a questionnaire either on campus versus in a café. The assessed situational behavior intentions, global priority of career, and self-descriptive trait ratings were significantly more career-oriented when participants responded on campus rather than in a café. In Exp. 2, we realized a different operationalization of independent and dependent variables, and the effect replicated, but disappeared under bogus pipeline conditions: Gainfully employed parents were asked to indicate their attitudes on work-family issues either at home or at work. The context effect emerged under standard conditions, but when led to believe that lies will be uncovered, participants indicated very similar levels of career-orientation, irrespective of whether they did so at work or at home.

It seems that being in a particular location enhances the accessibility of associated self-relevant knowledge. Such an effect may be mediated by physical retrieval cues in the environment (Godden & Baddeley, 1975), including odors (Aggleton & Waskett, 1999), that co-activate particular autobiographic memories (cf. Rubin, 2006). A further, not at all concurring explanation is provided by the social embodiment approach (Barsalou, 1999; 2008; Barsalou et al., 2003; Smith & Semin, 2007). Stepper and Strack (1993) found that making participants assume a slumped (vs. upright) body position reduced feelings of pride on task performance. Hereby, they extended prior research on bodily generated attitudes towards objects (see Briñol & Petty, 2009, for a comprehensive review) unto self-related feelings and motivated cognition (cf. Förster & Friedman, 2008). We consider it plausible that people spontaneously assume different body positions in a café or at home on the one hand, and on campus or at the office on the other hand.

Music, nice smells, and watching other people in relaxed positions most probably play a role here. At a certain point, it may simply be due to the different kind of chairs provided. However, if our participants took their potentially more relaxed versus more disciplined *sitting position* as cue for *their position* on career and leisure or family issues (Briñol & Petty, 2009), this should result in the observed differences in response behavior. Going one step further, different body positions are most likely associated with autobiographic memories and will thus stimulate the retrieval of congruent prior experiences of oneself as thinking, feeling and behaving in a particular, that is, more relaxed vs. more disciplined way.

We tried to keep all kinds of potential demand effects to a minimum by assessing responses in written format and under full anonymity. The stated aim and addressee of the studies were neutral (a bachelor thesis, or an empirical student project, respectively), and of course kept constant across all experimental conditions in both experiments. Still, it cannot fully be ruled out that participants tried to anticipate what kind of self-description might be generally desirable in order to make a good impression (on whom-ever). They might more or less consciously have screened their surrounding for normative standards. The fact that they come across different such standards of career-orientation in the different contexts provides a possible alternative explanation for the effect. Whether self-descriptive response behavior does primarily depend upon proprioceptive cues and accessible episodic memory traces, or primarily upon accessible normative or comparison standards is an interesting and important question for future research. However, if both paths may be activated simply by being in different locations, the basic idea that *we are where we are* is unscathed. Being there (Clark, 1997) obviously has the power to alter explicit self-descriptions.

The present findings have substantial impact for all kinds of questionnaire and survey research. If self-report measures are obviously sensitive towards environmental variation, all kinds of effects may emerge that either a) cover systematic differences between groups or conditions, and thus reduce test power (in case of unsystematic variation, enhancing error variance), or b) yield systematic differences between groups that are falsely attributed to whatever factor studied, but indeed go back to location as a confound (in case of systematic co-variation with grouping or interventions). Experimental researchers are of course aware of such threats to the internal validity of their conclusions. Applied survey research, in contrast, is frequently driven by pragmatic considerations, and those responsible may lose awareness that such methodological concerns cannot be banned to the ivory-tower of science, but are downright fundamental for the interpretability of even the most "simple" results.

For example, consider a large company running its annual assessment of employee satisfaction and needs (e.g., for child care or fitness offers, advanced training, coaching, etc.), in order to implement corporate health management or career models. The results are very likely to depend upon whether participants fill in an according questionnaire at home vs. at the office, and results become blurred. If, moreover, systematic comparisons across hierarchy levels,

departments, or subsidiaries are to be drawn and the circumstances of responding *systematically* vary between these groups (e.g., because some subsamples don't have computer access at the office; or because interviews are arranged in different locations for different departments), problems become even more severe. If one group responds at their office and the other one, say, in the lounge area (due to a lack of a private office), systematic differences in attitudes and priorities are likely to emerge between these departments or hierarchy levels. These systematic differences, however, might be totally unrelated to department or position, but simply be driven by context effects. In other words, internal validity may be severely endangered by environmental factors at responding, a seemingly irrelevant confound. Thus, context factors such as place or time (e.g., asking on a Tuesday vs. on a Saturday; Nazzal, Töpfer, Volquarts, Walter & Mierke, 2012) deserve applied researchers' attention. They either learn about the needs and behavior intentions of an "office me" or those of a "private me", they interview a "weekday me" vs. a "saturday me", and responses will hardly be the same, and hardly imply the same organizational measures to be taken.

One first remedy might be to at least keep these factors constant within one and the same survey, and second to make sure context factors correspond to the "me" relevant to whatever purpose at hand. Another, more sustainable means might be to not rely on survey data alone, but to include a variety of measures. These could be hard data like rates of sick leave and turnover, extra-hours, or sales statistics for different kinds of food from the canteen. Other indicators reflecting individual, but more concrete thoughts and behavior, may also enhance validity. Within the Day Reconstruction Method (Kahneman, Krueger, Schkade, Schwarz & Stone, 2004), for instance, participants are asked not to state what they are generally like, but to remember what they were like yesterday, what they did, what they felt like, and so on. It seems likely that such a procedure, similar to our bogus pipeline manipulation in Exp. 2, has the potential to overcome contextual accessibility effects by triggering more thorough processing at responding and to thus enhance the validity of self-reports.

7 Note

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