Article

Patience in Everyday Life: Three Field Studies in France, Germany, and Romania

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Abstract

Patience is a highly relevant virtue in daily life. Yet patience has not yet been studied systematically across cultures. The aim of this study is to investigate three competing hypotheses. Based on the *pace-of-life* hypothesis, individuals that reside in countries with slower paces of life will be most patient. Based on the *self-regulation* hypothesis, countries with a strong emphasis on self-regulation will be most patient. Based on the *situation-specific-patience-behavior* hypothesis, patience will vary among situations. We observed patience in a total of 835 persons within three situations in France, Germany, and Romania in the capitals as well as in a small city in each: (a) waiting at an ATM machine, (b) waiting in a supermarket line, and (c) tolerating a lengthy telephone survey introduction. City size, gender, and age did not affect the amount of time that elapsed before signs of impatience were manifested. People in Germany were the most patient in the ATM situation, which supports the self-regulation hypothesis. No significant country differences were found for the two other situations. There was no evidence for the pace-of-life hypothesis, though the results did support the notion that patience is situation-specific because impatient behaviors and the time that elapsed prior to their display, differed among situations. The kind of reactions exhibited in the waiting situations differed across cultures, indicating culture-specific ways to cope with impatience. Results have applications to various fields of psychology. Moreover, they can aid in improving tolerance and understanding when individuals are forced to wait in other countries.

Keywords

patience, field study, culture, cross-cultural, time, pace of life, self-regulation

Patience is the ability to wait calmly in frustrating situations (e.g., Schnitker, 2012). Although this construct has its place and has been widely discussed as a virtue in other disciplines, such as philosophy, religion, spirituality, and ethics, it has long been neglected in scientific psychological research. In fact, empirical research on patience within the field of psychology was nonexistent until only a few years ago. In research on human virtues using the Values in Action–Inventory of

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Strengths (VIA-IS), patience is not even included (Park, Peterson, & Seligman, 2006; Peterson, Park, & Seligman, 2005).

However, the relevance of patience has been demonstrated in research on well-being. Patience is a predictor of life satisfaction, happiness, health, and goal achievement (Schnitker, 2012; Schnitker & Emmons, 2007). Patience buffers against negative emotions and allows coping more adaptively, especially in situations that cannot be changed. When participants received training in patience, their depression scores decreased, and their positive affect increased (Schnitker, 2012). New trends in mindfulness-based interventions (Kabat-Zinn, 1994) within clinical practice have also demonstrated the value of patience.

The goal of the present study was to expand the research on patience in two ways. Previous work has focused primarily on patience in the United States. This study assessed patience across three European countries and investigated the role culture plays. Further, we explored three competing hypotheses about which variable influences patience the most: *pace of life, self-regulation*, or *situational characteristics*. Second, earlier research heavily relied on surveys to assess patience. Uniquely, the present work examined patience in daily life situations with a focus on its behavioral aspects. To our knowledge, this is the first study that has assessed differences in patience across cultures.

Defining Patience

Although closely related and often considered equivalent constructs, patience is distinct from delay of gratification. As exemplified by the marshmallow experiment of Mischel (1981), delaying gratification means to postpone an immediate but relatively smaller reward for the sake of a larger reward at a later point in time (Carducci, 2009). Just like the child chooses between eating one marshmallow immediately versus restraining from doing so to receive an additional one later, the delay of gratification always involves making a rational decision. Patience as defined in the present study, however, does not involve selecting between different outcomes with respect to waiting time. It is rather seen as *the way* a person waits in the face of frustration, adversity, or suffering when there is no choice but to simply wait (Schnitker, 2012). As such, patience is related to self-regulation. Self-regulation can be defined as the ability to direct behavior, thoughts, and emotions to achieve certain goals (Bandura, 1991). In a situation where people are required to wait, self-regulation refers to cognitive and behavioral adaptation and also comprises the ability to stay calm and control negative emotions. We will discuss further the influence of self-regulation on patience later on.

Patience is usually understood as a trait. As a trait, patience is related to agreeableness and openness while being negatively related to neuroticism (Schnitker & Emmons, 2007), yet the "Big Five" only explained 25% of variance. Patience can also be conceptualized as a state related to the impact of situational factors. Schnitker (2012) distinguished and assessed patience in a variety of situations (the 3-Factor Patience Scale, *PS-10*; Schnitker, 2012): *life hardship patience*, for example, patience in the case of chronic illness; *interpersonal patience*, for example, patience when dealing with slow-witted people; and *daily hassles patience*, which refers to patience with everyday life frustrations, such as slow public service or delays in schedules. *Daily hassle patience* as a universal phenomenon is the aspect we focused on here.

The extent of patience experienced depends also on how much waiting time is expected and considered normal in a certain situation (Groth & Gilliland, 2006). There are interpersonal differences in people's expectations depending on situational factors, past experiences, basic dispositional personality traits, and sociocultural norms (Schnitker, 2012). This has several implications for the assumptions made in the present study. First of all, it means that the amount of time someone does not react to a patience-trying situation—which is how we operationalized patience—may vary across situations. Second, patience will fluctuate across individuals, and

therefore, cross-cultural studies require large sample sizes. Third, patience is also very likely to be different across cultures, the main topic of the present research.

Patience and Culture

Culture can be understood as implicit and explicit knowledge shared by a specific group of people and transmitted from generation to generation that is used to cope with one's environment (Güss, Tuason, & Gerhard, 2010; Smith, Bond, & Kagitcibasi, 2006). Thus, patience as the ability to wait calmly in frustrating situations can be interpreted as a variety of culturally learned behaviors and skills adapted to cultural norms.

Action and sociocultural theories can explain how these behaviors and skills are acquired (Vygotsky, 1978). Such theories stress the role of social interactions that occur in a cultural context and offer similar opportunities for learning, which Lave (1991) called "situated social practice" (p. 67). For instance, a child watching an adult waiting in line will observe behaviors and emotions related to waiting strategies that might be adaptive in this cultural environment but potentially not in another; in some cultures, there may not be even a line in the first place, but a seemingly disorganized waiting crowd; assuming there are lines, in certain cultures, it is acceptable to let people skip the line or save a place for someone. Children might observe their parents engaging in small talk with the people in front or behind them, or they could see their parents sighing and looking angry. This is how cultural differences in waiting behavior can emerge.

Pace of Life and Patience

Which cross-cultural differences regarding patience might one expect? One theoretical construct that could be related to patience across cultures is the "pace of life." This refers to the speed at which events take place or actions happen (Levine, 1997; Levine & Norenzayan, 1999). It is related to the expectation of having to wait (expected waiting time) discussed before. Our first hypothesis was that pace of life was closely related to exhibiting patience. In a culture that has a slower pace of life, individuals should be more willing to tolerate waiting, whereas people from a culture used to a fast pace will be more likely to react with signs of impatience to slow processes.

Levine and Norenzayan (1999) compared large cities in 31 countries by observing three indicators of pace of life: average walking speed, work speed of postal clerks, and the accuracy of public clocks. Their results suggested that pace of life was fastest in individualistic cultures, colder climates, and economically productive countries. Although expected, the authors did not find a relationship between pace of life and city population size. The authors attributed this to the small variance in the number of city inhabitants and referred to previous studies that demonstrated there to be positive correlations (e.g., Bornstein, 1979; Bornstein & Bornstein, 1976). Further research also indicated that with an increase in city size, pace of life becomes faster (e.g., Bettencourt, Lobo, Helbing, Kühnert, & West, 2007; Walmsley & Lewis, 1989).

The countries with the fastest paces of life were Switzerland, Ireland, Germany, Japan, Italy, and England (Levine & Norenzayan, 1999). Countries with a moderate pace of life included France (ranked 11), Poland, Costa Rica, Taiwan, and Singapore. Among the countries with the slowest pace of life were China (ranked 23) followed by Bulgaria, Romania, Jordan, and Syria.

Based on the results of the above study, we chose for the present study one country with a fast pace of life (Germany, ranked 3), one country with a medium pace of life (France, ranked 11), and one country with a slow pace of life (Romania, ranked 25). We predicted that people in Romania would exhibit the most patience, being that it has the slowest pace of life, and in Germany, with the fastest pace of life, people would show the most impatience.

Self-Regulation and Patience

Another potential predictor of patience that might explain cultural differences is self-regulation. As mentioned before, self-regulation can be defined as the ability to direct behavior, thoughts, and emotions to achieve certain goals (Bandura, 1991). In a waiting situation, self-regulation involves the ability to stay calm and control negative emotions.

Baumeister and Heatherton (1996) postulated there to be an influence of culture on self-regulation: "Moreover, culture can exert considerable influence by teaching people which circumstances make it appropriate to abandon control" (p. 13). Cultures may vary with respect to their standards in relation to waiting situations and regarding their norms for emotional expression and control. Therefore, patience would be thought to be influenced by the degree to which there is socialization to suppress immediate discomforts and exhibit self-control.

Self-regulation as a construct has been indicated to be cross-culturally consistent, for example, in one study that used confirmatory factor analyses in over 4,000 adolescents in Canada, Germany, Iceland, and the United States (Gestsdottir et al., 2015). However, cross-cultural differences in self-regulation have been reported. Many studies have shown that Germans and Westerners express anger and negative emotions more often than those in Eastern cultures (see, for example, Trommsdorff, 2012, for a summary).

One longitudinal study followed 260 children over 1 to 2 years and assessed behavioral self-regulation (Gestsdottir et al., 2014). After controlling for age, gender, and mothers' education, a main effect of culture was found, with German and Icelandic children scoring higher than French children but not significantly different from one another.

Although research on self-regulation in the Romanian context is rare, one investigation provided insights into emotional regulation in the Romanian context. Specifically, researchers compared emotional expression in children's storybooks in the United States, Turkey, and Romania (Wege et al., 2014). Results showed that young American children were more exposed to intense emotional expressions and powerful negative emotions in children's storybooks than Turkish and Romanian children. However, "negative powerful emotions were overwhelmingly displayed to outgroup members in Romanian compared with American books" (p. 9). It may be ambitious to extrapolate results with children books to waiting situations in daily adult life, but potentially, the expression of negative emotions portrayed in these books fosters cultural norms that allow their expression later on.

So far, we have referred to cross-cultural psychological studies that directly address self-regulation. Another possibility worth exploring is whether societal-economic variables could be indirect indicators for self-regulation. Potentially, Germans' high levels of worker productivity in addition to high rates of savings (the highest in Europe) could be economic indicators of self-regulation. In 2013, the savings rates in Europe ranged from −10% of household income in Romania (lowest), +15% in France, to +16% in Germany (highest, Rocher & Stierle, 2015).

To summarize, we expect that self-regulation will inhibit the expression of impatience in waiting situations. Cross-cultural studies suggest that German participants will show more patience than French and Romanian participants due to higher levels of self-regulation. The children's storybook analysis along with the societal-economic data might be indicators of lower self-regulation in Romania compared with Germany. In sum, predictions regarding patience in Germany, France, and Romania based on self-regulation research are contrary to those derived from cross-cultural research on pace of life. Based on self-regulation research, we expect Germans to be the most patient followed by the French and then the Romanians.

Situation-Specific Patience Behavior

The discussion to this point suggested that cultural differences in patience may be related to cultural differences in pace of life or self-regulation. Another potential influence on patience could

be situational characteristics, as behavior can always be interpreted through traits and situational characteristics (e.g., Mischel & Shoda, 1995).

Our goal was to investigate patience in real-world settings. We chose particular situations following specific criteria. First, the situations needed to allow for a broad collection of data instead of only targeting a certain group of people. Second, the situations should not have posed a danger to the people involved (as well as those indirectly affected by the situation). As a case in point, we had discussed possible scenarios related to traffic, but to ensure the experimenters' and participants' safety, we did not pursue them. Third, these situations were required to be representative of situations people encounter in their daily lives, representing typical hassles necessitating patience to be dealt with. Finally, the situations had to differ, for example, regarding patience in situations where people followed their own goals and patience when people adhered to others' goals.

Below, we briefly describe the three patience situations we evaluated. They will be described in more detail in the "Method" section of each study. The first assessed patience when people lined up at an ATM machine, and our research assistant deliberately took an unusually long time to complete their transaction. The second determined patience when people lined up to check out in a supermarket and our research assistant took an unusually long time to pay for their products. The third situation gauged patience via people being called and having to listen to a lengthy introduction to a telephone survey.

In the supermarket and ATM situations, the persons waiting are pursuing their own goals, namely, shopping and paying for items and waiting to withdraw money, respectively. With the telephone survey situation, however, the individuals listening to the lengthy introduction are not seeking to achieve their own goals. Besides, it is easier to "leave" the telephone situation. Thus, patience may differ in situations where one's "own goals" are involved versus when "others' goals" are. Collectivistic values and high power distance (Romania) could foster patience in "others' goals" telephone survey situations (Basabe & Ros, 2005; Hofstede, 2010); as a note, collectivist societies are those in which individuals prioritize the interests of their social group over their own individual interests; power distance refers to the extent to which the less powerful people within a society accept that power is distributed unequally (Hofstede, 2010).

There are also situational differences between the ATM and supermarket scenarios. People waiting in line—at least those at the front of the line—could attribute the reason for their waiting to potential technical problems with the ATM machine, while their waiting in the supermarket is obviously because of a person's ineffectual payment behavior. Previous research has shown that impatience and dissatisfaction are likely to increase when the cause of waiting can be ascribed to a person (Rose, Meuter, & Curran, 2005).

Gender, Age, and Patience

For the present study, we also considered additional variables that may be related to patience. Although daily hassle patience has not been examined with regard to gender or age, these demographic variables could presumably be related to patience. Referring to the related constructs of delay of gratification and self-regulation, Bjorklund and Kipp (1996) made the argument that females are able to delay gratification better than males because of a greater evolutionary pressure to inhibit responses, as in, for example, areas related to reproduction, child rearing, and social tasks. Silverman (2003) conducted a series of meta-analyses and found a small advantage (r = .096) for females that does not seem to vary with age. We thus expected a minor female advantage regarding patience in the present study, as well.

Findings for age and the development of the ability to delay gratification are inconsistent. Green, Fry, and Myerson (1994) observed that the ability to delay gratification increases with age. This trend was confirmed by Harrison, Lau, and Williams (2002), who uncovered a linear

decline of discounting rates with age. Other theories such as Sozou and Seymour's (2003) postulate contradictory outcomes. In particular, they described an inverted U-shaped relationship between delay of gratification and age with an increase in the delay of gratification until middle age and a steady decrease from that point onward. Children may have higher discounting rates because "the environment still has to be explored and the future is uncertain" (Drobetz, Maercker, & Forstmeier, 2012, p. 10). This diminishes later on, causing a peak in delay of gratification as a middle-aged adult. Then, at a certain point in life, the future becomes uncertain again due to the fact that aging bears the risk of not getting the delayed reward back before dying. There is also neuropsychological evidence for this pattern of a curvilinear relationship between delay of gratification and aging: The frontal lobe regions, which control behavior and executive functioning, are immature during childhood, which could be the reason why children decide rather impulsively. However, as people age, there is neuronal loss in the prefrontal cortex, arguably causing the ability to delay gratification to decline again (Drobetz et al., 2012).

Hypotheses

The goal of this exploratory study is to determine which of the three competing hypotheses discussed previously is best supported:

Hypothesis 1a (Pace-of-Life): People from countries with slower paces of life are expected to be more patient compared with people from countries with faster paces of life. Romanians will show the most patience across all situations followed by the French and then Germans, who will demonstrate the least patience.
Hypothesis 1b (Self-Regulation): People from countries with a strong ethics of self-regulation are expected to be more patient compared with those from countries where self-regulation is not fostered to that extent. Among our sample, Germans will show the most patience across all situations compared with the French and Romanians, who will exhibit the least patience.
Hypothesis 1c (Situation-Specific Patience): Based on cultural values, Romanians would be most patient in the "others' goal" telephone survey situation. People from all cultures will be more patient in the ATM situation where waiting can be attributed to technical problems versus the supermarket situation where waiting is attributed to people being ineffectual.

While Levine and Norenzayan's study and investigations into self-regulation do not adequately account for the relationship between city size and pace of life, other studies did in fact determine there to be a significant relationship (e.g., Amato, 1983; Levine & Bartlett, 1984). Therefore, we chose to conduct our field research both in the largest city of each country (at the same time being the capital) and in a relatively smaller city within each country. In doing so, the present work attempted to show that the bigger the city, the lower the level of patience exhibited:

Hypothesis 2: Within the same country, the inhabitants of the bigger city will display less patience than the inhabitants of the smaller city.

Based on the reasoning underlying gender and age outlined previously, we hypothesized the following:

Hypothesis 3: Females will show more patience than males.
Hypothesis 4: People in middle adulthood will possess more patience than adolescents or older adults.

Study 1: Waiting at the ATM Machine

As mentioned earlier, we attempted to assess patience in daily hassle situations without posing danger to the involved people. With the ATM situation, the objective was to measure how much time a person was willing to wait in an ATM line before he or she showed signs of impatience.

Method

Participants

Based on the studies on pace of life and on self-regulation, we selected the three countries, namely, France, Germany, and Romania. In each, data were collected in the capital (not including the wider metropolitan area inhabitants: 2.3 million in Paris, 3.5 million in Berlin, and 1.9 million in Bucharest) and in a city with about 100,000 inhabitants (Rouen, France: 111,000 inhabitants; Bamberg, Germany: 70,000 inhabitants; and Buzau, Romania: 129,000 inhabitants). In each city, between 38 and 40 different ATM situations were observed at 1 to 7 different ATM locations.

Instruments and Procedure

The second, third, and last author traveled to the two cities in each country to collect data (two persons in each country). For the ATM situation, Experimenter 1 (E1) pretended to draw money and check their bank account at a frequently used cash teller machine in the city center. Once a person stood in the queue, E1 acted as though they were withdrawing money. To ensure that the waiting person's patience was exhausted, E1 occupied the ATM for exactly 3 min. The second experimenter (E2) observed the entire situation and measured the time it took until the waiting people exhibited verbal or nonverbal signs of impatience, such as checking their smartphones, stamping their feet, or asking the experimenter to hurry up. E2 positioned herself close to the ATM and monitored the facial and motor expressions of the waiting people, where it was essential that E2 faced the line. To avoid attracting unwanted attention, she pretended to be using her smartphone. With the timer on her smartphone, E2 measured the time from the moment a person lined up behind E1 until signs of impatience were seen. E2 noticed and later wrote down how the waiting persons expressed impatience. To keep track of the time, E2 used the reset function of the stopwatch on the smartphone. After 3 min, E2 gave E1 a signal to complete her transaction at the ATM by calling her name whereupon E1 quickly finished her transaction at the ATM, but without signs of stress or hurry. On the one hand, this guaranteed that the time people were forced to wait was held constant. On the other hand, it made the role of E2 more convincing, being a friend waiting for E1.

In each country, testing was conducted over a period of 12 days. Using various locations for observations and setting time limits for observations decreased the likelihood of being "discovered" as experimenters.

Data Analysis

For the ATM waiting situation, the duration of being patient and the time the impatience reactions were exhibited were documented. Any other specific details were also documented. All information was stored in a Microsoft Excel file and later transferred into Statistical Package for the Social Sciences (SPSS), version 24, for further statistical analyses.

All impatience reactions were then coded by the second, third, and last author into nine categories for the ATM machine scenario. Reactions observed were simply leaving the waiting line, specific verbal utterances (e.g., talking directly to the experimenter or about the experimenter), unspecific verbal utterances (e.g., breathing deeply, saying "tzz," mumbling, clearing one's

throat, wheezing, moaning), aggressive facial expressions (e.g., staring at experimenter, making eye contact with the experimenter, angry looks), unspecific facial expressions (e.g., shaking one's head, rolling one's eyes), gestures (e.g., such as tapping with one's fingers on a surface, stepping down with one's foot, walking up and down, or dangling/rocking), looking at one's watch or cell phone, laughter and/or joking with others in line, or other reactions.

We used Fleiss' Kappa for Multiple Raters to calculate inter-rater reliability for these categorical data. Kappas over 0.75 were established as excellent, Kappas between 0.40 to 0.75 as fair to good, and Kappas below 0.40 as poor (Fleiss, 1981). For our three coders, Fleiss' Kappa was very good, equating to 0.78 for the ATM machine data. In case of disagreements, the one category chosen by two of the three coders was used.

The country and reaction data were further analyzed using log-linear analyses to investigate the possible interaction between country and reactions (Agresti, 1989). Standard Chi-square and other methods cannot simultaneously examine the association between two categorical variables and control at the same time for the effects of other variables. Furthermore, Chi-square tests are not able to reveal interactions between variables nor identify in which categories the countries differed.

Log-linear analyses begin with higher-order associations—in our case, the interaction between country and reaction—and then eliminate this interaction if it does not contribute significantly to the model (Field, 2013). A robust model shows a good fit between the observed and expected cell frequencies and has a nonsignificant likelihood ratio statistic, G^2. The next step includes analyses (parameter estimates and related *z*-values) with the best fitting model explaining the identified effects.

Results

Demographics

For the ATM waiting situation, 152 reactions in France, 103 reactions in Germany, and 111 reactions in Romania were recorded (see Table 1). Gender and age were estimated. The gender distribution for the ATM situation was 51% men and 49% women in France, 31% men and 69% women in Germany, and 40% men and 60% women in Romania. The age range in the ATM situation was estimated to be from 18 to 75 years of age, all under 60 except one person with an estimated age of 65 and one with an estimated age of 75 ($M = 34.0$ years, $SD = 13.49$). With the ATM situation, the mean age of the observed French was 35.0 years ($SD = 13.30$), of the observed Germans was 31.3 years ($SD = 12.65$), and of the observed Romanians was 35.1 years ($SD = 14.26$). Based on the differences in gender and age between countries and to test Hypotheses 3 and 4, these variables were included as covariates in the subsequent nested analysis of covariance (ANCOVA) analyses.

Time Until First Signs of Impatience Were Shown

Following the hypotheses described earlier, we expected an effect of country, city, gender, and age on patience. We predicted that people from countries with slower paces of life (Romania) would be more patient versus those from countries with faster paces of life. Alternatively, we expected people from countries with a strong ethic of self-regulation (Germany) to be more patient. We also expected people from smaller cities to be more patient compared with people from bigger cities. Further, we believed women would be more patient than men. In addition, we anticipated patience to be greatest in middle adulthood (as we did not have older adults in this study, we expected a positive linear instead of an inverted-U-shaped relationship between patience and age).

Table 1. Descriptive Statistics of TOBP Until First Impatience Reactions Are Shown for Germans, French, and Romanians in the Three Different Situations: ATM, Supermarket, and Telephone Survey.

	Capital			Small city		
	N	*M*	*SD*	*N*	*M*	*SD*
ATM						
France	63	78.05	40.67	89	73.45	44.15
Germany	53	97.62	34.76	50	104.10	49.01
Romania	50	94.14	47.98	61	76.46	44.21
Supermarket						
France	25	44.04	20.82	32	51.37	23.29
Germany	42	48.21	13.86	33	52.21	11.97
Romania	35	44.20	18.39	36	44.36	18.27
Telephone survey						
France	43	51.47	50.92	43	72.65	60.83
Germany	43	43.12	42.43	45	55.51	50.67
Romania	48	56.81	47.74	44	61.27	57.64

Note. TOBP = time of being patient; ATM = automated teller machine.

Table 2. Results of the Nested ANCOVA Analyses for TOBP for the ATM Waiting Situation (City Nested in Country).

	dfs	*F*	*p*	n_p^2
Country	2, 3.23	3.99	.02	.023
City	3, 342	1.20	.31	.010
Age	1, 342	6.31	.01	.018
Gender	1, 342	4.15	.04	.012
Country × Age	2, 342	3.91	.02	.022
Country × Gender	2, 342	5.24	.01	.030
City × Age	3, 342	1.81	.14	.016
City × Gender	3, 342	0.82	.48	.007
Country × Age × Gender	3, 342	6.07	.00	.051
City × Age × Gender	3, 342	1.45	.23	.013

Note. TOBP = time of being patient; ATM = automated teller machine.

Patience was operationalized in the present study in all three situations as time until first signs of impatience were exhibited (time of being patient = tobp means and standard deviations; see Table 1). The range of tobp for the overall sample varied between 7 and 195 s for the ATM machine situation.

In the ATM situation, we conducted a nested ANCOVA with country (Germany, France, Romania) and city (small city vs. capital) as independent variables, where city was defined as a nested variable within country. We also included age and gender as covariates. Descriptive statistics, that is, means and standard deviations for tobp in the three situations within the three countries are presented in Table 1. Main effects, two-way interactions, and three-way interactions are listed in Table 2.

For the ATM waiting situation, there was a significant main effect for country on tobp. The shortest tobp was found for the French, followed by the Romanians. Germans had the longest tobp (when we talk about "Germans," "French," and "Romanians," we simply refer to the people

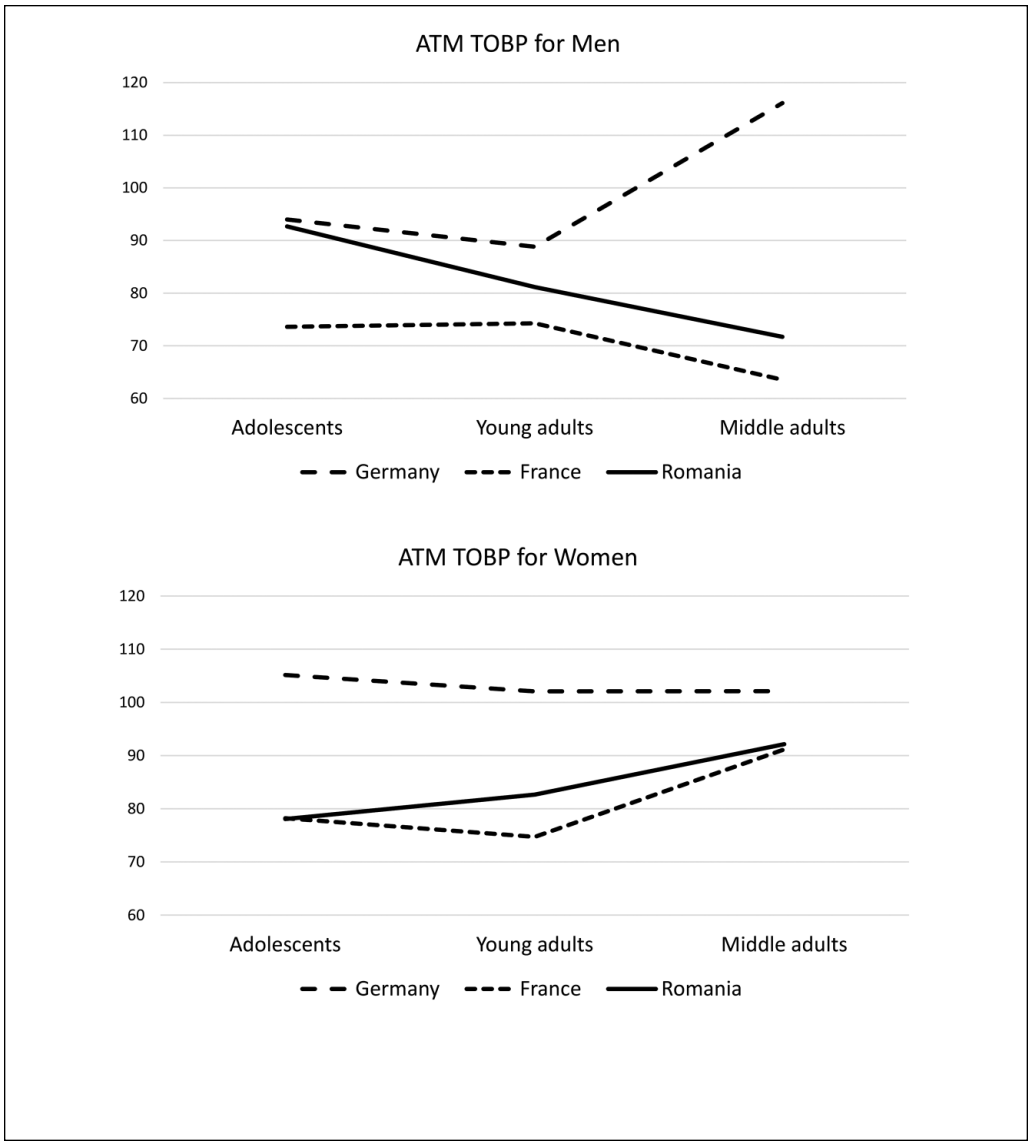

Figure 1. TOBP at ATMs for men and women of different ages (adolescence, young adulthood, middle adulthood) in the three countries.
Note. TOBP = time of being patient; ATM = automated teller machine.

we observed in the countries). There was a significant three-way interaction between country, age, and gender on tobp. To break down the three-way interaction, we calculated two-way interactions showing the tobp for the three countries for men and women separately for the ages 10 to 20 (adolescence, 23% of the overall sample), 21 to 39 (young adulthood, 36% of the overall sample), and 40 to 65 (middle adulthood, 40% of the overall sample) age groups (see Figure 1).

For men, there was a marginally significant interaction between country and age, $F(4, 144) = 2.38$, $p = .06$, *n.s.*, $\eta_p^2 = .06$. Whereas age did not matter for the French and Romanians, it did appear to matter for the Germans. Moreover, within the German population, adolescents and young adult men reacted faster versus men from middle adulthood, but the main effect of age was

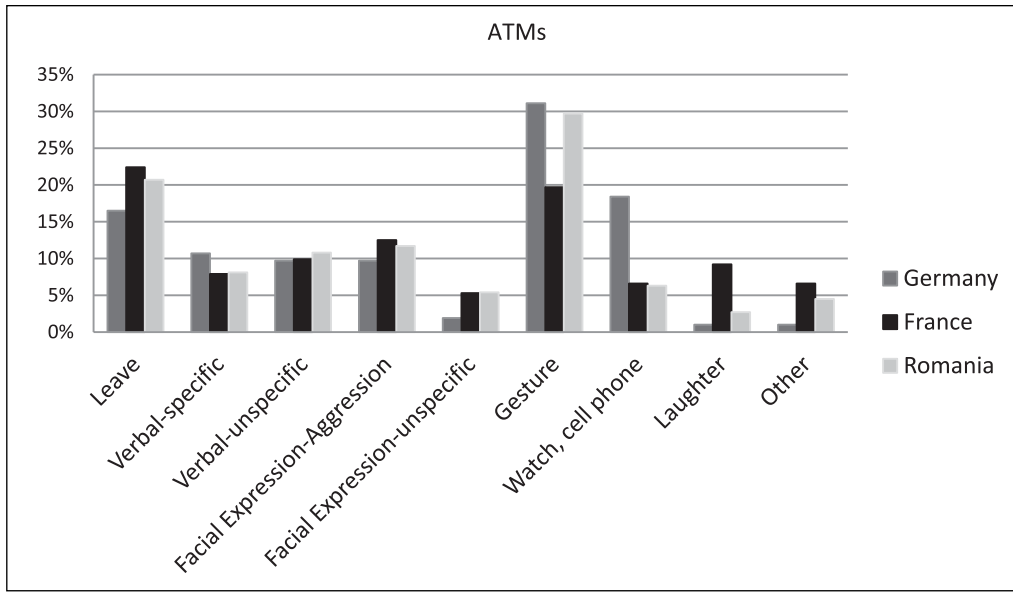

Figure 2. Reactions to waiting in line at ATM per country (proportions).
Note. ATM = automated teller machine.

not significant, $F(2, 144) = .87$, $p = .42$, $\eta_p^2 = .01$. However, the main effect of country was significant, $F(2, 144) = 5.35$, $p = .01$, $\eta_p^2 = .07$. Post hoc comparisons for men indicated that the Germans waited significantly longer before they demonstrated any signs of impatience compared with the French.

For women, there was no significant interaction between country and age, $F(4, 201) = .37$, $p = .83$, $\eta_p^2 = .07$. The main effect of age was not significant, $F(2, 201) = .83$, $p = .44$, $\eta_p^2 = .01$. Meanwhile, the main effect of country was significant, $F(2, 201) = 4.40$, $p = .01$, $\eta_p^2 = .04$. Post hoc comparisons for women demonstrated that the Germans waited significantly longer before they showed signs of impatience compared with the French, and this was consistent with the country differences in tobp of the male sample and the overall sample in the ATM waiting situation.

Content: Qualitative Reactions Exhibited in ATM Waiting Situation

Whereas our first analyses focused on tobp until the first impatient reaction was shown, the following analyses focus on the content, or what kind of reaction was exhibited.

Figure 2 outlines the reactions of the Germans, French, and Romanians while waiting at an ATM. The kind of reactions shown while waiting at the ATM differed significantly among countries, χ^2 (16, $N = 366$) = 33.33, $p = .007$.

We utilized the backward elimination procedure from hierarchical log-linear analysis following Tolmie, McAteer, and Muijs (2011). The significant K-way and higher-order effects for the second order ($G^2 = 34.84$, $df = 16$, $p = .004$) suggested that the interaction between country and reaction was significant and needed to be taken into consideration in further analyses. Table 3 features the parameter estimates for culture and patience reactions. The *z*-values show that the countries differed significantly in terms of individuals leaving the situation. Whereas 22% of the French left the situation, just 20% of the Romanians and 16% of the Germans did so. With this, the French exhibited significantly more aggressive facial expressions (13%) compared with the

Table 3. Log-Linear Analyses (Results of the Country—Reaction Interaction) for the ATM Waiting Situation.

	Germany		France		Romania	
	Param. Est	*Z*-value	Param. Est	*Z*-value	Param. Est	*Z*-value
Leave	1.16	2.37*	1.84	4.00***	1.45	3.07***
Verbal-Specific	0.74	1.42	0.82	1.60	0.55	1.02
Verbal-Unspecific	0.65	1.23	1.04	2.09*	0.82	1.60
Facial Expression-Aggression	0.65	1.23	1.27	2.62**	0.90	1.78
Facial Expression-Unspecific	−0.79	−1.03	0.44	0.80	0.17	0.29
Gesture	1.78	3.85***	1.71	3.70***	1.81	3.93***
Watch, Cell Phone	1.27	2.62**	0.65	1.23	0.31	0.55
Laughter	−1.30	−1.41	0.97	1.94*	−0.45	−0.66
Other	−1.30	−1.41	0.65	1.23	—	—

Note. ATM = automated teller machine.
*$p < .05$. **$p < .01$. ***$p < .001$.

Romanians and Germans. The three countries also varied in terms of the expressions of impatience through their gestures. Whereas roughly one third of the French and Romanians used gestures, such as stepping with one's foot, only approximately 20% of Germans did the same. Further, the Germans looked significantly more often at their watches and cell phones and the French laughed most often (9%).

Discussion

The findings regarding tobp in the ATM waiting situation demonstrated that for both men and women, Germans had the longest tobp, that is, showed the most patience. Regarding the kind of reactions exhibited, a similar pattern was also apparent. The Germans compared with the Romanians and French were the least likely to leave the situation. The French showed most aggressive facial expressions, largest variety of gestures, and laughed the most, as well. The Romanians, meanwhile, like the French, used many gestures, and Germans most often looked at their watches and cell phones. The observations related to both ATM tobp and behavioral reactions among cultures support the *self-regulation* hypothesis and counter the *pace-of-life* hypothesis.

Study 2: Waiting in the Supermarket

The second scenario was similar to the first—we observed patience while waiting in a supermarket line when payment was taking longer than expected. We focused, however, our patience observations only on the people waiting in line and not on the cashier.

Method

Participants

Data were collected in the same small cities (Rouen, Bamberg, Buzau) and capitals (Paris, Berlin, and Bucharest) in the same three countries, France, Germany, and Romania. In each city, between 37 and 41 different supermarket situations were observed at between 14 and 25 different supermarkets. We chose many different locations to get a heterogeneous set of data and to avoid being detected as "experimenters."

Instruments and Procedure

The second, third, and last author traveled to the two cities in each country to collect data (two persons for each country). In the supermarket waiting situation, patience was assessed as tobp while waiting in a supermarket line. For this purpose, the experimenter (E1) selected one or two items to buy. These products were mostly everyday products, such as soap, water, or fruits. E1 then lined up at the checkout and waited for the cashier to collect the money, while the confederate (E2) placed herself next to E1 in the line. The experiment was commenced only if a minimum of two customers were lined up behind E1. As E1 reached the cashier, she waited until the supermarket employee informed her about the cost of the purchase. Then, she began searching, clumsily and slowly, for the right amount of money. She counted every single coin pretending to want the exact amount in cash. For example, if she bought fruits for 1.48 Euros, she opened her wallet slowly, looked for coins to pay, for example, one euro, two 10-cent pieces, one 20-cent piece, one 5-cent piece and three 1-cent pieces, counted them very slowly in her own hand. Pretending to miscount the money, E1 then put the coins back in her wallet, took them out again and started counting once more. Next, E1 dropped a few coins intentionally and collected them slowly. E1 did not show any signs of stress and apologized only with the words "I'm sorry!" in the local language. Finally, E1 paid for the groceries by placing the money, coin by coin, into the hand of the cashier. To avoid being detected as a foreigner, E1 only spoke what was essential: Guten Tag (Germany)/Salut (France)/bună ziua (Romania) when reaching the cashier, and Entschuldigung (Germany)/Je suis désolée (France)/scuze (Romania) when dropping the coins.

The register was occupied by E1 for exactly 90 s. The second experimenter, E2, positioned herself close to the cashier at the checkout and monitored the facial and motor expressions of the waiting people. E2 observed the line and took notes on her smartphone regarding impatience. To avoid attracting unwanted attention, E2 pretended to play with her smartphone. She recorded time with the reset function of her smartphone when a waiting person showed nonverbal signs of impatience, like stamping of feet, or verbal expressions, like "how much money do you need?" E2 called the name of E1 when the time limit was reached. After each payment, the two experimenters met outside the supermarket and wrote down the times and reactions in a notebook.

Data Analysis

For the supermarket waiting situation, time and the impatience reactions were documented. Any other specific details were also collected. All information was stored in a Microsoft Excel file and later transferred into SPSS for further statistical analyses.

All impatience reactions were then coded by the second, third, and last author into nine categories for the supermarket scenario. Reactions observed were coded in the same way as the reactions in the ATM situation, that is, using the same nine categories (see "Data Analysis" section for Study 1).

We used Fleiss' Kappa for multiple raters to calculate inter-rater reliability for these categorical data (Fleiss, 1981). For our three coders, Fleiss' Kappa was, at .67, quite favorable. In case of disagreements, the one category chosen by two rates was used.

Results

Demographics

For the supermarket waiting situation, 57 reactions in France, 75 reactions in Germany, and 71 reactions in Romania were recorded in total (see Table 1). The gender distribution for the supermarket situation was 44% men and 56% women in France, 45% men and 55% women in Germany, and 53% men and 47% women in Romania. The age range in the supermarket situation was from an estimated 25 to 70 years ($M = 39.7$ years, $SD = 15.53$). In the supermarket situation,

Table 4. Results of the Nested ANCOVA Analyses for TOBP for the Supermarket Waiting Situation (City Nested in Country).

	*df*s	*F*	*p*	n_p^2
Country	2, 178	0.24	.79	.003
City	3, 178	0.27	.85	.004
Age	1, 178	0.29	.59	.002
Gender	1, 178	0.13	.72	.001
Country × Age	2, 178	0.62	.54	.007
Country × Gender	2, 178	0.37	.69	.004
City × Age	3, 178	0.27	.85	.005
City × Gender	3, 178	0.55	.65	.009
Country × Age × Gender	3, 178	0.42	.74	.007
City × Age × Gender	3, 178	0.57	.64	.010

Note. TOBP = time of being patient.

the mean age of the observed French was 39.0 years (*SD* = 16.52), of the observed Germans was 39.4 years (*SD* = 15.65), and of the observed Romanians 40.49 (*SD* = 14.74). Based on the differences in gender and age between countries and to test Hypotheses 3 and 4, these variables were included as covariates in the subsequent nested ANCOVA analyses.

Time Until First Signs of Impatience Are Shown

According to the hypotheses described earlier and in Study 1, we expected an effect of country, city, gender, and age on patience. Patience was operationalized in the present study in all three situations as time until first signs of impatience were exhibited (tobp means and standard deviations; see Table 1). The range of tobp for the overall sample varied between 5 and 106 s in the supermarket situation.

We conducted a nested ANCOVA with the country (Germany, France, Romania) and city (small vs. capital) as independent variables, whereby city was defined as a nested variable within country. We also included age and gender as covariates. Descriptive statistics, that is, means and standard deviations for tobp, in the three situations within the three countries are presented in Table 1. Main effects, two-way interactions, and three-way interactions can be seen in Table 4.

For the supermarket waiting situation, no main effect and none of the interactions were significant. Neither country, nor city, nor gender, nor age significantly predicted tobp (see Table 3).

Content: Qualitative Reactions Shown in the Supermarket Waiting Situation

Whereas our first analyses focused on tobp until first impatient reaction was exhibited, the following analyses focused on the content, that is, what kind of reaction was shown. Figure 3 depicts the reactions of the Germans, French, and Romanians, while waiting in line in a supermarket. The type of reactions seen while waiting in line differed significantly among countries, χ^2 (16, N = 205) = 35.12, p = .004.

We applied a backward elimination procedure from hierarchical log-linear analysis following Tolmie et al. (2011). The significant K-way and higher-order effect for the second order (G^2 = 34.84, df = 16, p = .004) indicated that the interaction between country and reaction was significant and needed to be taken into consideration with further analyses. Table 5 lists the parameter estimates for culture and the patience reactions. The z-values had just two significant differences for all behavioral reactions. The Germans had the most aggressive facial expressions in the

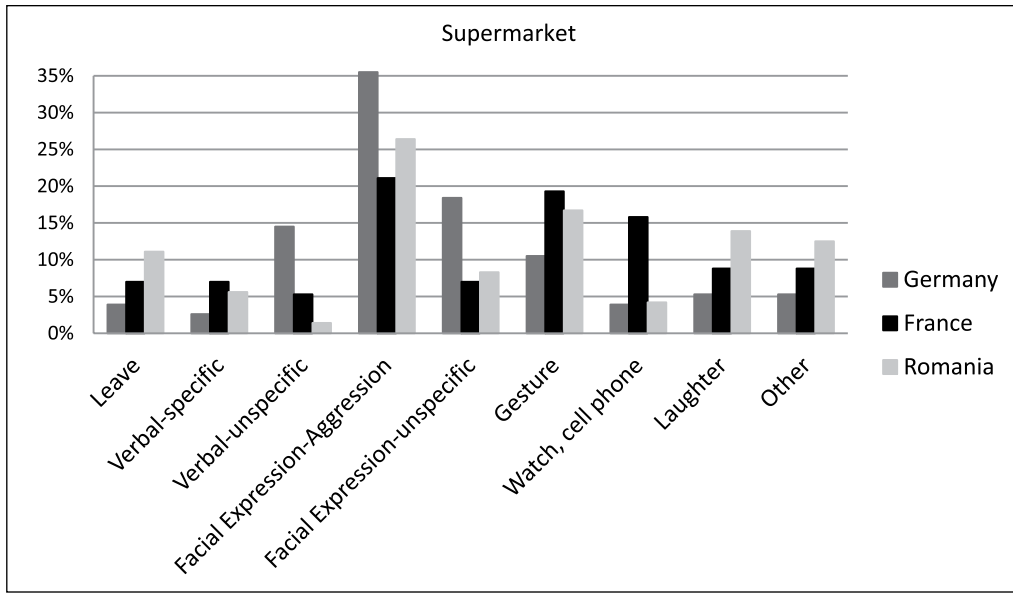

Figure 3. Reactions to waiting in line in supermarket per country (proportions).

supermarket situation (36%) compared with the French (20%) and Romanians (26%). Meanwhile, the Romanians, compared with the Germans and French, made the least amount of verbal unspecific utterances.

Discussion

The results with respect to tobp in the supermarket waiting situation showed no significant differences among countries, and no significant influence of city, age, or gender.

Regarding the kind of reactions shown, countries differed only in terms of aggressive facial reactions, exhibited most often by the German participants, whereas verbal unspecific utterances were made least frequently by the Romanians.

These findings do not provide evidence for either *self-regulation* or *pace-of life* hypotheses. Yet reviewing the means of tobp in the three countries and the two cities for supermarket and ATM waiting situation, as observed in Table 1, it becomes clear that all means were lower for the supermarket situation, overall means compared: $t(525.91) = 14.32$, $p < .001$. Thus, there was support for the situation-specific-effect, that is, people being less patient in the supermarket situation where the cause for waiting could be attributed to a person compared with the ATM situation where the cause may have been attributed to potential technical problems. In addition, other situation-specific differences were observed. Whereas 35% of the Germans' reactions were coded as expressions of anger and aggression in the supermarket situation, only 10% were identified as anger and aggression reactions in the ATM situation.

Study 3: Listening to Telephone Survey

Telephone surveys, which are very common in the United States, have only recently become commonplace in Europe. The third scenario involved reading a lengthy introduction to a fictitious telephone survey and assessing the patience of people listening to it.

Table 5. Log-Linear Analyses (Results of the Country—Reaction Interaction) for the Supermarket Waiting Situation.

	Germany		France		Romania	
	Param. Est	*Z*-value	Param. Est	*Z*-value	Param. Est	*Z*-value
Leave	−1.00	−1.60	−.75	−1.31	−.11	−.24
Verbal-Specific	−1.34	−1.88	−.75	−1.31	−.75	−1.31
Verbal-Unspecific	0.19	0.44	−1.00	−1.60	−1.85	−2.10*
Facial Expression-Aggression	1.06	2.82**	0.27	0.64	0.72	1.82
Facial Expression-Unspecific	0.42	1.01	−.75	−1.31	−.38	−.75
Gesture	−.11	−.24	0.19	0.44	0.27	0.64
Watch, Cell Phone	−1.00	−1.60	−.00	0.00	−1.00	−1.60
Laughter	−.75	−1.31	−.55	−1.02	0.10	0.22
Other	−.75	−1.31	−.55	−1.02	—	—

*$p < .05$. **$p < .01$.

Method

Participants

Data were collected in the same capitals (Paris, Berlin, and Bucharest) and same small cities (Rouen, Bamberg, Buzau) in the same three countries, France, Germany, and Romania. For the telephone survey introduction, 86 reactions in France, 88 reactions in Germany, and 92 reactions in Romania were recorded. For the breakdown by capital and small city, see Table 1.

Instruments and Procedure

In the telephone survey scenario, patience was evaluated by calling people and measuring their willingness to listen to a boring and long-winded introduction of a telephone survey. The written introduction that was read on the phone counted 402 words in German, while the Romanian translation was 387 words and the French translation was 439 words. Each survey was read by a native speaker, that is, female Erasmus students in Bamberg from France and Romania, respectively.

In each country, phone numbers were selected randomly from the online telephone books. People were called, and the Erasmus students commenced reading the lengthy introduction. At the moment the person hung up or showed signs of impatience, for example, stating to be "busy cleaning," the researcher noted what she had been reading at that moment and the time. If the individuals called listened patiently until the end of the introduction, the researcher explained to them the purpose of the call.

Data Analysis

For the survey situation, the time and impatience reactions were documented. Any other specific details were also collected. All information was stored in a Microsoft Excel file and later transferred into SPSS for further statistical analyses.

All impatience reactions were coded by the second, third, and last author. The categories for the telephone survey situation were different from those in the ATM and supermarket situations. Certain participants simply hung up, others said good bye and ended the call ("Thank you, good bye"), while a number expressed anger ("No, no, no!"), impatience ("Get to the

Table 6. Results of the Nested ANCOVA Analyses for TOBP for the Telephone Survey Waiting Situation (City Nested in Country).

	*df*s	*F*	*p*	n_p^2
Country	2, 242	1.00	.37	.008
City	3, 242	.17	.92	.002
Age	1, 242	.02	.90	.000
Gender	1, 242	.54	.46	.002
Country × Age	2, 242	1.47	.23	.012
Country × Gender	2, 242	.67	.51	.005
City × Age	3, 242	.75	.53	.009
City × Gender	3, 242	.11	.96	.001
Country × Age × Gender	3, 242	.72	.54	.009
City × Age × Gender	3, 242	.62	.61	.008

Note. TOBP = time of being patient.

point!"), skepticism ("For whom are you working?" "Are you calling from the European Union?"), gave a brief unspecific explanation ("I am not interested"), gave a concrete or long explanation or excuse ("I currently have guests and . . ."), said sorry and declined ("Sorry, I don't want to participate"), and several actually listened to the whole 2 min 30 s survey introduction.

For our three coders, inter-rater reliability was quite favorable with Fleiss' Kappa being .69. In case of disagreements, the relevant category chosen by the two raters in accordance with one another was utilized.

Results

Demographics

Gender and age were estimated based on the listeners' voices because we could not see participants and ask them about their gender or age. The gender distribution was 48% men and 52% women in France, 40% men and 60% women in Germany, and 23% men and 77% women in Romania. Age was estimated as adults who were young, middle-aged, or older. For the French sample, there were 7% young, 77% middle-aged, and 16% older participants. For the German sample, there were 6% young, 69% middle-aged, and 25% older participants. For the Romanian sample, there were 22% young, 36% middle-aged, and 42% older participants. As a result of the differences in gender and age between countries and to test Hypotheses 3 and 4, these variables were included as covariates in the subsequent nested ANCOVA analyses.

Time Until First Signs of Impatience Were Shown

According to the hypotheses described earlier, we predicted an effect of country, city, gender, and age on patience. Patience was operationalized in the present study as time until first signs of impatience were shown (tobp means and standard deviations; see Table 1). The range of tobp for the overall sample varied between 6 and 209 s.

For the telephone survey situation, there was no main effect, and none of the interactions were significant. Neither country, nor city, nor gender, nor age significantly predicted tobp (see Table 6).

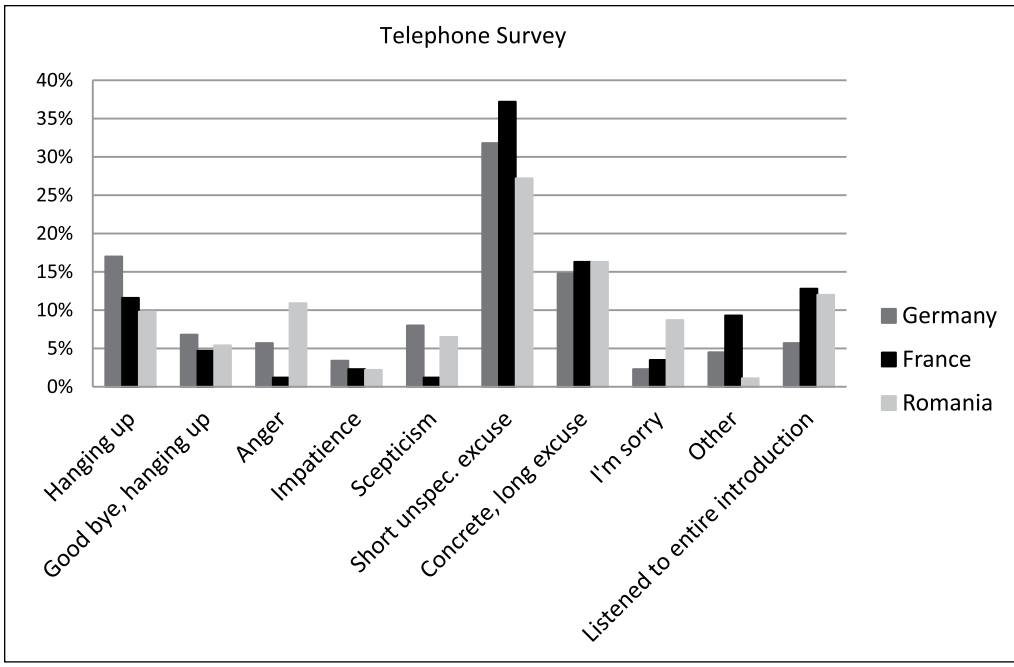

Figure 4. Reactions to waiting while listening to lengthy telephone survey introduction per country (proportions).

Content: Qualitative Reactions Shown While Listening to a Lengthy Introduction to a Telephone Survey

Figure 4 depicts the reactions of Germans, French, and Romanians while listening to the lengthy introduction to a telephone survey. The type of reactions exhibited while listening differed marginally among countries, χ^2 (18, N = 266) = 28.47, p = .055.

We once again employed the backward elimination procedure from hierarchical log-linear analysis following Tolmie et al. (2011). The significant K-way and higher-order effect for the second order (G^2 = 31.12, df = 18, p = .03) indicated that the interaction between country and reaction was significant and had to be accounted for in further analyses. Table 7 features the parameter estimates for the culture and patience reactions. The z-values show no significant differences among the countries in terms of frequencies of hanging up (12.8% overall) or saying good bye and hanging up (5.6% overall). There were also no significant differences in the proportion of individuals that listened to the whole lengthy introduction (France, 13%; Romania, 12%; and Germany, 6%). The French exhibited significantly less anger and skepticism versus the Germans and Romanians. Meanwhile, the Germans demonstrated significantly more impatience compared with the French and Romanians. The most frequent category was a short unspecific excuse (e.g., "I am not really interested") given by nearly one third of all participants, and this was significantly more common with the French compared with the Romanians (37% of the French, 32% of the Germans, and 27% of the Romanians). Interestingly, the Romanians most often said "I'm sorry."

Discussion

The findings regarding tobp in the telephone survey situation showed no significant differences among countries, and no significant influence of city, age, or gender.

Table 7. Log-Linear Analyses (Results of the Country—Reaction Interaction) for the Telephone Survey Introduction.

	Germany		France		Romania	
	Param. Est	*Z*-value	Param. Est	*Z*-value	Param. Est	*Z*-value
Hanging Up	0.30	0.77	−0.09	−0.21	−0.19	−0.44
Good Bye, Hanging Up	−0.57	−1.16	−0.94	−1.69	−0.74	−1.42
Anger	−0.74	−1.42	−2.04	−2.35*	−0.09	−0.21
Impatience	−0.94	−1.69	−1.53	−2.19*	−1.53	−2.19*
Skepticism	−0.43	−0.91	−2.04	−2.35*	−0.43	−0.91
Short Unspecific Excuse	0.91	2.60**	1.04	3.03***	0.80	2.24*
Concrete, Long Excuse	0.16	0.40	0.23	0.59	0.30	0.77
I'm Sorry	−1.53	−2.19*	−1.19	−1.95*	−0.30	−0.67
Other	−0.94	−1.69	−0.30	−0.67	−2.04	−2.35*
Listened to Entire Introduction	−0.74	−1.42	0.00	0.00	—	—

*$p < .05$. **$p < .01$. ***$p < .001$.

Regarding reactions, no significant differences were observed for simply hanging up or listening to the complete introduction. According to the *situation-specific-patience* Hypothesis 1c, we expected that Romanians, based on cultural values of collectivism and power distance, would be most patient in the "others' goal" telephone survey situation. Neither the analysis of tobp nor the results of the behavioral reactions supported it, however. It should be noted that no differences among countries were determined.

General Discussion

The main goal of this study was to investigate patience in three daily life situations in three European countries (Germany, France, and Romania). We focused our analyses on (a) tobp when first impatience was shown and (b) content, or the kind of reactions exhibited. Three competing hypotheses were investigated—the *pace-of-life* hypothesis, according to which Romanians should be the most and Germans the least patient; the *self-regulation* hypothesis, according to which the Germans should be the most and Romanians the least patient; and the *situation-specific-patience-behavior* hypothesis according to which patience should vary across situations. The effects of age, gender, and city size were also investigated.

Summary of Results Regarding TOBP

Comparing the country means of tobp, support was found for the *self-regulation* hypothesis. Germans waited significantly more patiently in the ATM situation, but no significant differences among countries in tobp were observed for the supermarket situation and no significant differences were found for listening to the entire telephone survey introduction.

One potential reason for these differences may be situational characteristics and demands. As discussed previously with the ATM and supermarket situations, the persons waiting are following their own goals, namely, shopping and paying for items and waiting to withdraw money. Yet in the telephone survey situation, the persons listening to the lengthy introduction are not pursuing their own goals. They are (potentially) granting someone else a favor. Germans being more patient in the "own goal" situation versus the "other person's goal" situation could be related to greater self-regulation along with high individualism and low power distance compared with the

French (high individualism, medium/high power distance) and Romanians characterized by collectivism and high power distance (Basabe & Ros, 2005; Hofstede, 2010).

Why were there no country differences in the supermarket waiting situation but differences in the ATM machine waiting situation? People waiting in line—at least those at the front of the line—could attribute the reason for their waiting to potential technical problems of the ATM machine, while their waiting in the supermarket was obviously because of a person's ineffectual paying behavior. Previous research has indeed demonstrated that impatience and dissatisfaction are likely to increase when the cause for a wait can be ascribed to a person (Rose et al., 2005).

Another potential reason for more impatience and consistently lower tobp in the supermarket situation across countries was the uncertainty of whether the customer had chosen the fastest supermarket line. Maister (1984) argued that one's level of anxiety increases while thinking about changing lines and seeing other lines become shorter while theirs does not move. If customers in the waiting line experience an unexpectedly long wait based on an individual slowly paying, tension and restlessness of the customer rises as they are unsure what is going on at the register and they potentially become more attentive to time-relevant cues (Glicksohn, 2001).

Of pertinent interest is that classical research in other psychological areas, for example, on honesty, has similarly highlighted strong influences of situational characteristics and consequently contended that traits were not the basis of the observed effects (e.g., honesty variation; see Burton, 1963; Hartshorne & May, 1928).

At a theoretical level, the nonsignificant country differences regarding tobp suggest that the relationship between pace of life and patience may not be as clear as previously assumed. Potentially, pace of life represents a community's efficiency in functioning at a higher economic level (e.g., average duration of a postal transaction, average walking speed, accuracy of public clocks) more than it is linked to an individual's ability to endure frustrations in a particular situation, such as daily hassles.

Overall, there is evidence that suggests self-regulation influences patience, and that patience varies among situations. If situational characteristics are highly impactful on patience, then future research could attempt to develop a taxonomy of situations. Relevant situational aspects may, for example, be the option to leave (high for a telephone survey, low when stuck on an elevator), goals (own vs. other's), or cause of disruption (person's mistake vs. technical failure).

Hypothesis 2 predicted that within a country, people from smaller cities would be more patient than those from capitals. However, in none of the three situations did we find a significant main or interaction effects involving city size. Even comparing small city versus capital tobp over all three situations combined, the cities did not differ, $t(835) = 1.04$, $p = .30$. Although Levine and Norenzayan (1999) did not find positive correlations between city size and pace of life, others have (e.g., Bornstein, 1979; Bornstein & Bornstein, 1976; Walmsley & Lewis, 1989). One potential explanation for our nonsignificant findings regarding city size may be related to the random locations chosen within the cities to collect data, but we made a point of sampling data in a variety of places within each city and also to sample data at different times throughout the day.

Another possible reason for there being no differences between small and big cities may be related to the demands posed. People in larger cities are more willing to spend more time performing their daily duties as it is simply inevitable. Shopping centers are often far from their own residence and also administrative centers, such as the town hall, are located far from their homes. Therefore, people in bigger cities are more used not only to crowded places and longer waiting times but also to lengthier journeys to accomplish everyday life tasks, for example, involving public transportation. If they are confronted with a waiting line in the supermarket, they may thus be less likely to perceive it as a hassle because they did not expect it to be quick in the first place, whereas in small cities, people usually have shorter routes to reach the next store. If they live in rural areas, the majority might even possess a car. Therefore, they are less willing to invest a large amount of their time and patience into everyday tasks. Thus, people in big cities are more used to

unforeseen events, such as waiting times or crowded places, and see and tolerate these as part of daily life. Life in a small city runs more smoothly.

According to Hypothesis 3, females were expected to exhibit more patience than males. However, only in the ATM waiting situation did women show more patience than men. No gender differences were found in the supermarket waiting situation or in the telephone survey waiting situation. In addition, when comparing tobp overall between men and women, no significant differences were observed, $t(833) < .10$, $p = .94$.

One possible explanation for women not being more patient than men could be that the situations were all outside of the work context. Could it be that men have the luxury of being patient outside of work because women still take on more duties and responsibilities, such as child care and household responsibilities, even when working? Thus, women may feel more time pressure than men in the situations sampled. Indeed, a longitudinal 5-year study following young women in Berlin demonstrated that women, on the one hand, enjoyed the freedoms related to planning their own family and more opportunities in the work field, but on the other hand, they also experienced more pressure (Allmendinger & Haarbrücker, 2013). That study also indicated that women take care of more household chores (washing clothes, shopping, cleaning, and cooking) than men (only exception were small repairs at home) and that three quarters of men expected women to earn their own money.

Another potential reason for the lack of gender effects in the present study could be that all the experimenters in this study were young women. It is possible that men in the three countries investigated were more "forgiving" and polite to young women compared with young men (e.g., Mills, 2002; Tamaoka, Lim, Miyaoka, & Kiyama, 2010). Future research could attempt to control for potential experimenter gender effects in such daily life situations.

Regarding age, Hypothesis 4 predicted that more patience would be demonstrated by people in middle adulthood than by younger individuals. Unfortunately, we did not have a sufficient number of older adults in our sample (only two people older than 60 in the ATM situation and six people older than 60 in the supermarket situation) to systematically test for this effect. Age was significant only in the ATM scenario, with adolescents demonstrating the most patience compared with young adults and adults from middle adulthood.

This result contradicted our expectation of a positive linear relationship between patience and age. Potentially, other cultural expectations could mediate this relationship. Adolescents, for example, are often taught to be respectful and patient toward their peers or older people (Silverman & Maxwell, 1978; Sung, 2004), which could play a role in the observed waiting situations. Another possible explanation is that adolescents were simply under less time pressures compared with older adults.

Summary of Results Regarding Content of Impatience Reactions

While many of the findings regarding tobp across countries were not significant, the three countries differed in terms of frequencies of reactions exhibited in all three situations. Culture seemed to "teach" individuals which forms of showing impatience were considered appropriate and in which situations. There were certain consistencies across situations and situation-specific behaviors.

In the ATM waiting situation, the most frequent behaviors shown across all countries were impatient gestures (27%) and leaving the waiting line (20%). In the supermarket waiting situation, the most common behaviors shown across all countries were angry facial expressions (28%) and impatient gestures, such as tapping with the fingers on a surface or stepping down with one's foot (16%). In the telephone survey listening situation, the most regular behaviors across all countries was giving a short and unspecific excuse and then hanging up (32%), and a specific and elaborate excuse and then hanging up (16%).

Taken together, these findings support the *situation-specific-patience-behavior* hypothesis. Where do these situational differences come from? Most likely, certain situational characteristics and attribution processes could explain them. For instance, more aggressive facial expressions were exhibited in the supermarket situation versus the ATM machine waiting situation. We have already referred before to the possible attributions of the cause for waiting being a person in the supermarket situation and technical problems in the ATM situation. In the telephone survey situation, the waiting person has the most control to end and leave the situation, yet it is a social situation and a conversation. Of course, people might also have reservations toward telephone surveys, and there is greater anonymity between the caller and called person in comparison to the ATM and supermarket situations.

Regarding cultural differences, the Romanians and French more often left the waiting lines at the ATMs compared with the Germans. In addition, the Germans and Romanians made more gestures than the French. Germans particularly looked more often at their watches or cell phones. In the supermarket situation, Germans most often exhibited anger, and 37% of all reactions shown were angry facial expressions. Likewise, in previous cross-cultural research, Germans felt more at ease in expressing anger versus participants from other cultures (e.g., Strohschneider & Güss, 1998). In the telephone survey situation, the French showed the least amount of anger and skepticism, and Romanians said "I'm sorry" more often compared with the French and Germans.

Limitations and Future Research

One limitation of the present study was related to it being a field study. Although the external validity of the study's findings is very high, natural environments and situational characteristics varied. Occasionally, in the stores, for example, the other waiting lines were longer, rendering it not worthwhile to change lines; sometimes, the other waiting lines were shorter, making it easy to switch waiting lines. Depending on the location of the supermarkets or ATMs, the characteristics of the people waiting in line, such as socioeconomic status and educational background, may have varied. Socioeconomic status and education are known to influence patience (Godoy et al., 2004). Thus, not all characteristics could be controlled for.

Another limitation of the work presented here was the focus on three European countries. Future research could also extend patience research beyond Europe, where differences in patience might be even stronger. One could, for example, expect Asian country inhabitants to demonstrate more patience compared with individuals from European countries. One could specifically choose countries that would differ regarding pace of life and self-regulation and assess patience.

Yet another limitation of this study was that the experimenters estimated the ages of people waiting in line. The experimenters did not want to approach people afterward requesting their age, and therefore, these data are not absolutely precise. We hence distinguished just three groups in the telephone survey situation—adolescence, young adulthood, and middle adulthood to avoid mistakes.

Further still was that the present study only had eight late adulthood participants older than 60. Age-group comparisons in the field of patience including older adults would have been highly relevant. As mentioned previously, another limitation was related to the gender of the experimenters. Herein, the experimenters were young women. Future research could control for the gender and age of the experimenters.

Other methodological limitations of the present study were related to baselines, potential experimenter bias, and the operationalization and assessment of patience. It would be ideal to also have baseline wait times for the ATMs and supermarkets. We considered assessing those, as well, but then decided against doing so because experimenters' presence measuring baseline wait times and then staying or appearing again to assess patience at the same location could trigger questions or arouse suspicion. Although not ideal, we tried to balance possible baseline

differences by choosing supermarkets of different sizes and in varied parts of the cities in this study. We also made certain that at least two customers were lined up in the ATM and supermarket situations.

Another potential limitation could have been that the coders rated the impatience reactions without being blind to the participants' country and city despite being blind regarding the hypotheses. However, we developed a standardized multistep procedure and protocol for the experimenters pertaining to how to behave at the ATMs and in the supermarkets, what behaviors to code, and how to measure the time until signs of impatience were exhibited. Although a potential limitation, it was also an advantage to have the same three experimenters in the three countries as this guaranteed relative consistency in the data collection. In addition, whereas coding a specific behavior as impatience required interpretation, simply measuring time with a stopwatch on the smartphone did not leave room for interpretation.

We measured tobp until first impatience reaction shown. It was possible the observing experimenter could have missed signs of impatience. Furthermore, it was not possible to evaluate "internal" signs of impatience, such as impatient thoughts, motivations, and emotions related to impatience that were not expressed—we focused on behavior only.

Future research could also control for activities people engage in while waiting, like, for example, checking messages or emails on their smartphones. By doing this, the person waiting "reframes" the situation, that is, the person uses time spent waiting to engage in activities that are meaningful to them.

Conclusion

This study is—to our knowledge—the first to investigate patience in daily life situations across cultures. The same team of researchers investigated patience in three different daily life waiting situations (ATM, supermarket, telephone survey) in three countries in 835 scenarios. Future research is necessary to clarify a portion of the present inconsistent findings. Investigating patience, daily hassle patience in our case, is an important field considering that daily hassle patience correlates positively with life satisfaction and negatively with depression and can be a buffer against stress and burnout (see Schnitker, 2012).

The main results of the present study were that neither city size, gender, nor age had a significant main effect on patience operationalized as waiting time until first impatience reaction shown. Cultural differences were not found for the supermarket situation or the telephone survey introduction, yet countries differed in the ATM waiting situation, where Germans were the most patient. The way impatience was expressed varied in all three situations across cultures.

The *pace-of-life* hypothesis stating that countries with slower paces of life would be more patient was not supported. Evidence for the *situation-specific-patience* hypothesis comes from the different tobp values related to the three situations and the varied behavioral reactions. For example, Germans featured the most angry facial expressions in the supermarket situation, but the least anger in the ATM situation compared with the French and Romanians. A modicum of support was also found for the *self-regulation* hypothesis. In the ATM waiting situation, Germans showed least amount of impatience.

There is still much that we do not know with respect to patience across cultures. When traveling to another country, we do not know which reactions are appropriate. So, "Be patient!" because, as Jean Chardin (1711) said, "La patience est amere, mais son fruit est doux" [Patience is bitter, but its fruit is sweet] (p. 175).

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