

Beyond Clock Time: Social Class, Gender, and Everyday Unpredictability

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1. Research question

How much unpredictability do parents face in daily life, and does this vary by social class and gender?

2. Introduction and theoretical rationale

Amongst scholars, there is consensus that the family is a crucial focal point for understanding social class disparities in child outcomes. Parenting is viewed as a broad mechanism that reinforces and reproduces class distinctions (e.g., Conger et al., 2010; Ermisch et al., 2012; Kalil, 2014). Yet, there is limited understanding of the specific mechanisms by which social class influences parenting and child outcomes. This paper is the cornerstone paper of a larger research project in which we aim for a breakthrough in our understanding of the mechanisms by which social class influences parenting and child outcomes. We argue that such a breakthrough can be obtained by treating *time as a resource*.

Despite a rich understanding of the theoretical concept of time, empirical studies on social class disparities typically reduce to ‘clock time’. For example, using time-use surveys, numerous studies have investigated social class differences in the minutes, and hours, parents spend with their children (e.g., Altintas, 2016; Dotti Sani & Treas, 2016; Sayer, Gauthier & Furstenberg Jr, 2004). Such a focus, however, we argue, is insufficient for obtaining a comprehensive understanding of time as underlying mechanism through which social class influences parenting and child outcomes, because a focus on clock time neglects or overlooks that there are large social class discrepancies in people’s ability to use, control, and negotiate time (e.g., Gerstel and Clawson, 2018). We propose that differences in how often parents have to deal with unexpected events, how these events are appraised, and how these events transpire into parenting behavior and child development is an important but overlooked mechanism in the intergenerational transmission of inequality.

2.1 *Current paper: focus and hypotheses*

People encounter stressful events of varying frequency and intensity in daily life. Children become ill unexpectedly, work plans can suddenly change, extended family members may need acute help. Focusing on these unexpected events, and treating time as a resource, allows us to recognize normal unpredictability in family’s life, and encourages us to think how this normal unpredictability and its consequences might be unequally distributed across families. In this cornerstone paper of our project, we centralize these unexpected events and start with the question if, due to inequalities in people’s ability to use, control, and negotiate time, some families more often encounter unexpected events in everyday life than others. In other words, we first examine if *exposure* to unexpected events is stratified, with some parents more frequently required to adjust their daily work-life schedules than others.

Until recently, we did not have the research designs, technology, nor the analytical techniques to examine our research question. But times have changed. The widespread use of smartphones and recent technological advancements have strongly facilitated the collection of data on how parents are dealing with unexpected events and how this is reflected in, and transpires into, their daily parenting behavior. In the current paper, we therefore make use of Experience Sampling Methods (ESMs) to collect our data. Using their phone, participants filled in short micro-surveys about what they are doing, how they are feeling, and how they experience interactions. ESMs have the unique advantage of high ecological validity (e.g., Gabriel et al., 2019; van Berkel et al., 2017).

In the current paper, we explore how much unpredictability parents face in daily lives and in what domains of life these unexpected events occur. Then, we hypothesize that higher-

class parents, who often have greater autonomy and work flexibility, experience fewer unexpected events and report them as less stressful and more manageable than lower-class parents. For example, whereas white-collar workers are more likely to be able to adapt their working schedules when their child becomes ill, blue-collar workers are typically more strictly bound to theirs (Golden, 2008). Moreover, we argue that such cascading effects are likely not gender neutral. Studies looking at the implications of the Covid pandemic and the unexpected changes it entailed (e.g., sudden school closure), indicate that the ramifications are more severe for mothers than fathers (Balsa et al., 2023; Collins et al., 2020; Dunatchik et al., 2021; Hjálmsdóttir & Bjarnadóttir, 2021; Rinaldo & Whalen, 2023; Verweij, Helmerhorst & Keizer, 2021). Building on this evidence that men and women perceive and cope with unpredictability differently, we hypothesize that women will report more unexpected events and report them as more stressful and less manageable than men.

3. *Data and methods*

3.1 *Participants*

We draw on 100-day daily-diary multi-actor data from 128 Dutch families (256 mothers and fathers), collected between March and June 2025. This was embedded within the already ongoing 3HOEK study among families in the Netherlands, which includes a stratified sample of 208 parents from 104 families of which half were of relatively lower and the other half of relatively higher social class. Eligibility criteria for enrolment in the first wave (which started in 2018) were (a) having a 3-year-old child, (b) being a residential family in which one or more children were raised by a mother and a father, and (c) having Dutch nationality (mother and father of both parents were born in the Netherlands).

The current, and third, data collection round consisted of questionnaires similar to the one that had been administered in the two previous rounds. The questionnaire was coupled with a 100-day daily diary study and with qualitative interviews. 142 participants (71 families) of our original sample agreed to participate in this third round of data collection (68% retention rate). We additionally recruited 114 new participants (from 57 families) to complement our sample. Recruitment strategies included snowball sampling, outdoor recruitment at swimming pools, zoos, cinema, and social media campaigns. Our final sample consists of 256 participants from 128 families.

3.2 *Procedure ESM study*

Between March and June 2025, using a secure personalised app on their own smartphones, our participants answered at maximum 100 micro-questionnaires. Parents reported on unexpected events, time pressure, coping strategies, emotions, and family interactions. Participants received 1 euro for each completed questionnaire during the 100-day diary. To keep participants motivated for the entirety of the study, the following extra incentives were offered: a bonus of 5 euros for completing the daily questionnaire 10 days in a row (which was available for each 10-day streak they completed) and a bonus of 50 euros for completing 90 questionnaires during the 100 days. Participants could fill out the daily questionnaire between 20:00 to 02:00 in the evening. The participants received a notification at the start of their time slot to remind them to fill out the questionnaire. Filling out the questionnaire took participants on average around 4 minutes a day.

3.3 *Daily diary compliance*

25600 daily questionnaires were planned. Due to some technical errors, at least 293 of the daily questionnaires were not received by our participants. When participants encountered a technical issue with their own phone or when a technical issue arose in the app, they could

contact the research team and complete the daily questionnaire via an online version of the questionnaire in Qualtrics. We received 83 daily questionnaires via Qualtrics. Out of the 25600 planned questionnaires, 22819 were answered, resulting in a response rate of 89%, meaning that the average respondent filled in 89 out of the 100 daily questionnaires.

3.4 Measures

Occurrence of an unexpected event: Unexpected events are operationalized as any unexpected event, big and small, that occurs in daily life. In our study, we described it as follows in the intro-text to our participants: “*Sometimes the day doesn't go as planned. Maybe your child falls ill, you're asked to work late, you get stuck in traffic, public transport is delayed, a family emergency arises, or a friend suddenly needs help. Or simply a difficult start to the day due to, for example, a flat tire or a broken bike light.*”. Participants then received the question: Did anything unexpected happen today? Answer categories were: (1) Yes, in relation to work, (2) Yes, in relation to my child(ren), (3) Yes, in relation to my partner, (4) Yes, in relation to my family/friends/social circle, (5) Yes, in relation to something else, (6) No, not at all. Respondents could indicate that unexpected events in multiple domains happened that day. This list of items is taken from the Daily Inventory of Stressful Events (Almeida, 2005), which we have adapted to focus specifically on unexpected events. Participants who indicated to not have experienced an unexpected event received other follow-up questions to balance questionnaire length.

Description of the unexpected event: When respondents indicated that an unexpected event had happened, they received a couple of follow-up questions. The first question asked the respondent to provide a description of the event. Respondents could either type their description in into their phones or use voice-recording.

Perception of how stressful, unexpected and manageable the event was

In line with previous research (e.g., Ptacek, Smith, & Zanas, 1992) we subsequently asked respondents three appraisal questions (how stressful and how unexpected they perceived the event to be, and the extent to which they felt that they could cope with the situation. Answer categories for all three questions ranged from 1= not at all to 7 = very much.

3.5 Data cleaning and data preparation

Of all the 22819 rows of daily data entry, we have now cleaned 94%. In addition, we analysed all the reported events that were mentioned under the label of ‘other’. We noticed that a lot of events covered the health of the participant. We therefore decided to go through all data entries and move reported events that covered the topic of health of the participant to a newly created domain of ‘health’.

4. Preliminary results

4.1 Descriptive results

Throughout the 100 days, a total number of 4737 events were reported. For our current analyses, in which we focused on unexpected events, we removed events in which our respondents answered that the reported event was ‘not at all’ unexpected (n=88). This led to a total number of 4649 unexpected events included in our analyses.

The majority of the unexpected events reported were related to children (n=1477, 31,8%). Subsequently, in order of ranking, respondents mentioned events reported as ‘other’ (n=996, 21.4%), events reported as related to work (n=975, 21.0%), event related to one’s partner

(n=447, 9.6%), social events (n= 435, 49.4%) and finally events related to one's health (n=333, 7.2%).

The average number of unexpected events that were reported by a respondent is 18.4 (*sd* = 19.2). There are, however, substantial differences between individuals in the number of events that are being reported. For example, between respondents, the total number of unexpected events reported ranges from zero to 88. See Table 1.

Table 1: Descriptives of number of unexpected events reported per respondent

<i>Type event</i>	<i>Mean</i>	<i>S.d.</i>	<i>Min</i>	<i>Max</i>
Work event	3.86	4.96	0	29
Child event	5.86	7.12	0	41
Partner event	1.76	2.62	0	14
Social event	1.71	2.57	0	13
Other event	3.96	5.25	0	30
Health event	1.33	2.53	0	16
Total events	18.42	19.23	0	88

4.2 Differences in the number of reported unexpected events by social class

We expected that respondents from lower social classes would report more unexpected events than their higher-class counterparts. In the current analyses, we tested this using simple independent-samples t-tests. In contrast to our expectations, these tests showed that respondents from higher social classes reported significantly *more* unexpected events than respondents from lower social classes. This held for both the total number of unexpected events reported, as well as for the number of unexpected events reported in each of the specific domains. See Table 2 below.

Table 2: Independent-samples t-test results for differences between higher and lower social class respondents in the number of events reported.

<i>Type event</i>	<i>Mean lower class</i>	<i>Mean higher class.</i>	<i>T</i>	<i>P</i>
Work event	2.51 (3.89)	4.38 (5.26)	-2.81	0.003**
Child event	4.49 (7.23)	6.33 (6.99)	-1.92	0.014*
Partner event	1.28 (2.13)	1.95 (2.78)	-1.89	0.015**
Social event	1.06 (1.89)	1.98 (2.77)	-2.65	0.001***
Other event	2.47 (4.00)	4.51 (5.59)	-2.91	0.001***
Health event	0.95 (2.08)	1.46 (2.67)	-1.49	0.033*
Total events	12.74 (16.59)	20.52 (19.81)	-3.03	0.000*

4.3 Differences in the appraisal of the unexpected events by social class

Furthermore, we examined whether our respondents differed in the level of stress and the level of unexpectedness they assigned to the reported event. In addition, we assessed to what extent they differed in the extent to which they perceived they could cope with the situation. Overall, we expected that respondents from higher social classes would report lower levels of stress per reported unexpected event, that they reported them as less unexpected and that they would perceive the situation as more manageable.

Table 3 below revealed that, in contrast to our expectations, respondents from higher and lower social classes did not differ significantly in how stressful they perceived the unexpected event to be. The only exception is the domain of the partner: lower social class respondents report on average significantly higher levels of stress regarding an unexpected event that was related to their partner in comparison to their higher social class counterparts.

Table 3: Independent-samples t-test results for stressfulness by social class

<i>Type event</i>	<i>Mean lower class</i>	<i>Mean higher class</i>	T	P
Work event	3.36 (1.28)	3.56 (1.11)	-0.96	0.170
Child event	3.44 (1.29)	3.28 (1.16)	0.78	0.219
Partner event	3.87 (1.30)	3.42 (1.42)	1.65	0.050*
Social event	3.38 (1.80)	3.16 (1.34)	0.78	0.218
Other event	3.68 (1.32)	3.48 (1.17)	0.94	0.175
Health event	4.02 (1.27)	3.93 (1.25)	0.35	0.364

We ran similar analyses with respect to how unexpected our respondents perceived the event to be. We found no significant differences between higher and lower social class respondents in this regard. See table 4 below.

Table 4: Independent-samples t-test results for unexpectedness by social class

<i>Type event</i>	<i>Mean lower class</i>	<i>Mean higher class</i>	T	P
Work event	5.07 (1.09)	4.78 (0.98)	1.56	0.060
Child event	4.70 (1.00)	4.81 (0.94)	-0.72	0.285
Partner event	4.83 (1.25)	4.93 (0.96)	-0.47	0.319
Social event	5.15 (1.21)	5.06 (1.05)	0.45	0.329
Other event	5.13 (1.12)	5.04 (1.00)	0.49	0.313
Health event	5.07 (1.15)	4.95 (1.04)	0.52	0.310

Finally, we turned to how manageable our respondents perceived the reported events to be, on average. Again, we found no significant differences between higher and lower social class respondents in that regard. See Table 5 below.

Table 5: Independent-samples t-test results for coping by social class

<i>Type event</i>	<i>Mean lower class</i>	<i>Mean higher class</i>	T	P
Work event	3.54 (1.42)	3.72 (1.25)	-0.78	0.219
Child event	3.88 (1.55)	4.04 (1.29)	-0.72	0.235
Partner event	3.73 (1.51)	3.65 (1.49)	0.31	0.382
Social event	3.74 (1.72)	3.98 (1.45)	-0.79	0.217
Other event	3.73 (1.56)	3.76 (1.24)	-0.11	0.457
Health event	3.19 (1.32)	3.06 (1.27)	0.49	0.313

4.4 Differences in the number of reported unexpected events by gender

We scrutinized differences in the number of unexpected events reported by gender. In contrast to our expectations, our results revealed no significant differences between our male

and female respondents in the number of work events reported, nor in the number of partner events or other events. However, and in line with our expectations, mothers reported significantly more child events, more social events, more health events, and in total more unexpected events than fathers. See Table 6 below.

Table 6: Independent-samples t-test results for men and women in the number of events reported.

<i>Type event</i>	<i>Mean fathers</i>	<i>Mean mothers</i>	T	P
Work event	3.94 (5.32)	3.67 (4.57)	0.44	0.332
Child event	4.54 (6.04)	6.98 (7.84)	-2.78	0.003**
Partner event	1.54 (2.52)	1.95 (2.69)	-1.23	0.159
Social event	1.28 (2.22)	2.12 (2.81)	-2.65	0.004**
Other event	3.68 (5.37)	4.10 (5.11)	-0.65	0.259
Health event	0.79 (1.63)	1.81 (3.07)	-3.31	0.000***
Total events	15.72 (18.59)	20.54 (19.55)	-2.02	0.022*

4.5 Differences in the appraisal of unexpected events by gender

Furthermore, we examined whether our respondents differed in how stressful and unexpected they perceived the reported event to be. In addition, we assessed to what extent they differed in the extent to which they perceived they could cope with the situation. Overall, we expected that mothers would report higher levels of stress per reported unexpected event, that they reported them as more unexpected and that they would perceive the situation as less manageable in comparison to fathers.

Table 7 show the results pertaining to stressfulness. In line with our expectations, we find that mothers perceive events in the domain of work, children, other and health to be significantly more stressful than fathers in our sample. That said we did not find any significant gender differences pertaining to the domains of the partner, and to social events.

Table 7: Independent-samples t-test results for stressfulness by gender

<i>Type event</i>	<i>Mean fathers</i>	<i>Mean mothers</i>	T	P
Work event	3.34 (1.02)	3.69 (1.24)	-1.95	0.027*
Child event	3.13 (1.09)	3.50 (1.25)	-2.18	0.015*
Partner event	3.49 (1.32)	3.57 (1.47)	1.47	0.165
Social event	3.01 (1.33)	3.36 (1.55)	-1.36	0.089
Other event	3.29 (1.09)	3.74 (1.27)	-2.51	0.005**
Health event	3.65 (1.33)	4.15 (1.17)	-2.11	0.019*

In Table 8 we zoom in into gender differences with respect to the level of unexpectedness related to the reported event. In contrast to our hypotheses, we do not find any significant gender differences here.

Table 8: Independent-samples t-test results for unexpectedness by gender

<i>Type event</i>	<i>Mean fathers</i>	<i>Mean mothers</i>	T	P
Work event	4.90 (1.01)	4.80 (1.03)	0.66	0.255
Child event	4.77 (0.99)	4.80 (0.92)	-0.22	0.412
Partner event	4.91 (1.11)	4.90 (0.99)	0.05	0.486
Social event	5.05 (1.10)	5.10 (1.09)	-0.24	0.404
Other event	5.10 (1.09)	5.02 (0.97)	0.55	0.293
Health event	4.97 (1.13)	4.98 (1.02)	-0.06	0.477

Finally, in Table 9 we turn to how manageable our respondents perceive the reported events to be. In line with our expectations we find that mothers find events related to children, one's partner, and other events, to be less manageable than fathers perceive them to be. We found no significant gender differences with respect to the domains of work, social events, and health events.

Table 9: Independent-samples t-test results for coping by gender

<i>Type event</i>	<i>Mean fathers</i>	<i>Mean mothers</i>	T	P
Work event	3.68 (1.22)	3.68 (1.36)	0.00	0.50
Child event	4.18 (1.40)	3.83 (1.30)	1.82	0.035*
Partner event	3.92 (1.68)	3.48 (1.30)	1.67	0.049*
Social event	3.91 (1.65)	3.93 (1.42)	-0.10	0.467
Other event	3.95 (1.34)	3.58 (1.28)	1.88	0.031*
Health event	3.30 (1.37)	2.95 (1.20)	1.45	0.075

In sum, these preliminary findings reveal that although respondents from higher social classes report more unexpected events in relation to their lower-class counterparts, overall, they do not perceive them to be less stressful, less unexpected, or more manageable. With respect to gender differences, we do find substantial differences. Not only do mothers report more unexpected events than fathers, the ones they report are on average also seen as more stressful than the events fathers report, and less manageable.

4.6 Upcoming analyses

In the upcoming weeks, we will finalize data cleaning and we will expand out analyses. Amongst others, we will run our analyses with two different indicators for social class: income and time flexibility. Given that we have data from both partners, we will also investigate to what extent it matters if both parents are time inflexible or when both parents have low incomes.