Mindsets about remote work predict employee well-being in home office: Evidence from the COVID-19 pandemic

Lauren C. Howe
University of Zurich

Jochen I. Menges
University of Zurich

Abstract

During the COVID-19 pandemic, millions of employees worldwide transitioned to remote work. As remote work continues to characterize the post-crisis world of work, it is imperative to understand predictors of employee adjustment to remote work. The current research explores the extent to which individuals hold a *fixed mindset* about remote work (e.g., that a person either is or is not suited to remote work and this cannot be changed) and tested how this mindset shaped remote worker well-being during the coronavirus lockdown. In a longitudinal five-week study of 113 employees working remotely in Switzerland, we find that employees who endorsed a more fixed mindset about remote work experienced more negative emotion and reduced positive emotion during remote work. Further, the increased negative emotion prompted by fixed mindsets was associated with lesser perceived productivity among these employees. We conclude that encouraging employees to view remote work as a skill that can be learned and developed could help employees thrive in the new world of work.

Keywords: remote work, telecommuting, employee well-being, productivity, mindsets

Note: The reference style used in this manuscript is the Science citation style.

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The COVID-19 pandemic prompted organizations across the world to shift their workforce unexpectedly and rapidly to home office (*1*), effectively springboarding many companies into a new world of work. In the aftermath of the global crisis, many predict that remote work will be the "new normal." Thus, understanding predictors of employees' adjustment to remote work, as well as developing strategies for helping employees thrive during remote work, is essential for the post-pandemic world of work. In particular, how employees can maintain productivity during remote work is a key theoretical and practical interest (*2*, *3*).

But what factors predict a successful transition to remote work? Past research suggests that individual differences play a role. For example, employees with greater self-efficacy show better adjustment to remote work (*4*). Employees with certain personalities (e.g., more agreeable and less neurotic) have more positive attitudes toward remote work (*5*). Thus, an individuals' personal characteristics can predict how they respond to opportunities to work remotely.

In the current research, we examine employees' fundamental beliefs – or *mindsets* – about the nature of remote work. We propose that employees differ in the extent to which they believe that there is a kind of person who is well-suited to working remotely and that someone simply either is or is not that kind of person. We predict that employees who endorse this mindset, rather than viewing remote work as a skill that a person can learn and develop, will struggle more with remote work.

Our prediction is supported by a large psychological literature on the influence of specific mindsets about personal qualities. This literature suggests that the extent to which individuals believe that a personal quality such as intelligence, personality, and shyness can be changed or developed (a *growth mindset*), rather than a quality that is set in stone (a *fixed mindset*), predicts motivation and performance in a wide variety of contexts (*6*). For example, students who view intelligence as an unchangeable, fixed quality of which a person either has a little or a lot tend to earn lower grades than students who view intelligence as malleable quality (*7*).

Past research on mindsets suggests that one route through which holding a fixed mindset undermines individuals' motivation and performance is by shaping how individuals interpret the challenges they face (*8*). Individuals who hold a fixed mindset about a personal quality – such as the skill to work remotely – tend to interpret challenges that arise as a sign that they lack this desirable quality, and this makes setbacks personally distressing. For example, when individuals who hold a fixed mindset about intelligence fail a test, these individuals are more likely to see this setback as reflecting poorly on their self (e.g., as a sign that they are not smart), and accordingly, individuals with more fixed mindsets feel more upset by these setbacks (*9*, *10*). Failures prompt greater negative emotion directed toward the self (e.g., shame, disappointment) for those who hold a fixed mindset because these failures are linked to something immutable about "who they are" as a person (*11*). Thus, individuals who hold fixed mindsets about remote work may see any struggles that naturally arise in the transition to remote work (e.g., difficulty concentrating, feelings of loneliness) as a sign that they are the kind of person who is simply not suited for remote work, and accordingly may tend to feel greater frustration, guilt, or anxiety during remote work. This leads to our first hypothesis:

Hypothesis 1: Employees who hold a more fixed mindset about remote work will experience more negative emotion while working remotely.

Likewise, holding a more fixed mindset about remote work could minimize the positive emotion that employees experience during remote work. Individuals with a more fixed mindset about remote work may readily lose enthusiasm and excitement about their work when facing everyday challenges, as they may tend to interpret these challenges as a sign that they are simply not good at remote work and accordingly become less energized by remote work (*6*). This leads to our second hypothesis:

Hypothesis 2: Employees who hold a more fixed mindset about remote work will experience less positive emotion while working remotely.

Further, past research suggests that the emotions employees experience during remote work should be consequential for employees' productivity during remote work. Generally in the workplace, negative emotions have detrimental effects on performance (*12*, *13*), while positive emotions increase performance (*14*, *15*). For individuals with more fixed mindsets, experiencing negative emotion (e.g., feeling frustrated) or lacking positive emotion (e.g., feeling little excitement) could be particularly debilitating for productivity, as these emotional patterns may reinforce the idea that one is simply not suited to remote work, making employees unwilling to invest further effort into their work and thereby strengthening feelings of unproductivity. Thus, we expected that employees who endorse a more fixed mindset would experience reduced productivity because of their heightened negative and lessened positive emotions during remote work. This leads to our third hypothesis:

Hypothesis 3: Employees who hold a more fixed mindset about remote work will feel less productive during remote work because of the increased negative and decreased positive emotion that they experience during remote work.

Methods

Procedure

Participants were recruited through announcements (e.g., on LinkedIn) that invited anyone who was currently working remotely in Switzerland because of the COVID-19 pandemic to participate in a five-week study about remote work. In a baseline survey, participants completed mindset measures, demographics, and relevant control variables (e.g., personality).

Then, participants completed weekly surveys containing similar questions for the following three weeks. Recruitment began on April 16th, 2020. The first weekly survey was fielded via email on Friday, April 24th, the second on Thursday, April 30th (given that Friday, May 1st was a holiday in Switzerland), the third on Friday, May 8th. A final survey including additional questions was administered on Friday, May 15th. Participants were sent up to three daily reminders through the Monday following administration of each weekly survey.

Incentives for participating in the survey included that 1 Swiss franc was donated to the World Health Organization's COVID-19 relief fund for each survey that was completed, and that any participant who completed the full five-week study was entered in a lottery to receive a gift card and had the option to receive personalized feedback about their survey responses.

Measures

Mindsets about Remote Work and Intelligence

In the baseline survey, participants completed two measures that assessed the extent to which participants held fixed mindsets about remote work and intelligence.

To measure mindsets about remote work, we adapted 3 items from Dweck's (1999) scale, e.g., "You are either the kind of person who is good at working remotely or not and you can't really do much to change it," α=0.87, 1=*strongly disagree*, 6=*strongly agree*). Higher scores on this scale indicated greater agreement with a fixed view of remote work.

To test whether domain-specific mindsets about remote work are uniquely predictive of outcomes in home office, compared to other potentially relevant and previously established mindsets, we also included Dweck's (1999) scale used to measure fixed mindsets about intelligence (3 items, e.g., "Your intelligence is something about you that you can't change very much," α=0.90, 1=*strongly disagree*, 6=*strongly agree*). Higher scores on this scale indicated greater agreement with a fixed view of intelligence.

Positive and Negative Emotions During Remote Work

To capture participants' emotions during remote work, in each weekly survey, participants answered the question: "How often did you feel the following emotions while working over the last week?" (1=*never,* 5=*very often*). Based on the short form of the positive and negative affect scale (*16*), participants responded about five positive emotions (enthusiastic, excited, inspired, determined, alert, α_{Week1}=0.81, α_{Week2}=0.83, α_{Week3}=0.83) and five negative emotions (irritable, anxious, guilty, upset, frustrated, α_{Week1}=0.84, α_{Week2}=0.83, α_{Week3}=0.83).

Self-Perceived Productivity During Remote Work

We measured participants' perceptions of their productivity during remote work through two items in each weekly survey, "How productive or unproductive were you over the past week?" (1=*very unproductive,* 7=*very productive*) and "What percentage of your work goals would you say you accomplished over the last week?" (0-100%) (r_{Time1}=0.45, p<0.001, r_{Time2}=0.63, p<0.001, r_{Time2}=0.65, p<0.001). Since these items varied in their ranges, we scaled them before creating an average score. Higher numbers indicate greater perceived productivity.

Control Variables

Demographics and work environment. Along with participant age and gender, we measured other predictors that could shape work experiences during the pandemic, including participants' employment status (i.e., part- or full-time), participants' income, participants' level in their organization's hierarchy, the number of adults and children with whom participants lived, and whether participants had a dedicated space for work in their home or not.

Personality. We measured the "Big Five" personality traits to account for differences in participants' personalities. As in previous research (*17*, *18*), participants rated their own personality traits using ten items for each of the Big Five personality traits on a scale from 1=*strongly disagree* to 7=*strongly agree*. The openness to experience scale included adjectives such as "imaginative," "intellectual," and "shallow" (reverse scored) (α=0.72), the conscientiousness scale included adjectives such as "organized," "dependable," and "careless" (reverse scored) (α=0.82), the agreeableness scale included adjectives such as "considerate," "helpful," and "cold" (reverse scored) (α=0.81), the extraversion scale included adjectives such as "talkative," "energetic," and "reserved" (reverse scored) (α=0.89), and the neuroticism scale included adjectives such as "moody," "high-strung," and "unemotional" (reverse scored) (α=0.79).

Segmentation. Since participants' preference for separation between work and home life could affect their experiences with remote work, we assessed segmentation as measured in past

research (*19*). Participants were asked "How important is each of the following job characteristics to you personally?" and rated their agreement with statements like "Not being required to work while at home" and "Being able to forget work while I am at home" on a scale from 1=*very unimportant* to 7=*very important* (4 items, α=0.86).

Work Motivation. We measured participants' sources of motivation for their work as another factor that could predict adjustment to remote work. Based on scales used in previous research, including extrinsic motivation, intrinsic motivation, prosocial motivation, and family motivation (*20–22*), participants were asked, "Why are you motivated to do your work?" and rated their agreement with various reasons from 1=*strongly disagree* to 7=*strongly agree.* The extrinsic motivation scale included statements such as "Because of the money I earn with it" and "Because of the recognition I get from others" (5 items, α=0.70), the intrinsic motivation scale included statements such as "Because I enjoy the work itself" and "Because it's fun" (4 items, α=0.88), the prosocial motivation scale included statements such as "Because I want to have a positive impact on others" and "Because I care about benefitting others through my work" (4 items, α=0.92), and the family motivation scale included statements such as "Because I care about supporting my family" and "Because I want to help my family" (5 items, α=0.95).

Results

Participants

One hundred and thirteen employees from Switzerland participated in the study (68.1% women, 31.9% men, M_{Age}=36.82, *SD*=8.85). Most participants were employed full-time (74.3%) and the remaining were employed part-time (25.7%). Eighty-seven participants completed the full study, providing data at each of the timepoints.

Mindsets About Remote Work

First, we explored the relationship of mindsets about remote work with mindsets about intelligence. Mindsets about remote work were weakly positively correlated with mindsets about intelligence, $r(111)=0.20$, $p=0.032$. People who tended to endorse fixed mindsets about intelligence thus showed a slight tendency to also agree that intelligence cannot be changed.

We tested whether mindsets about remote work were distinguishable from mindsets about intelligence more broadly. We conducted a confirmatory factor analysis using maximum likelihood estimation to test whether a model of the data in which these two mindsets were considered separately was a better fit than a model in which these two variables were loaded onto the same factor. The model in which both variables were loaded onto the same factor was a poor fit for the data, with a Tucker-Lewis Index (TLI) of 0.31, a Comparative Fit Index (CFI) of 0.58, and a root mean square error of approximation (RMSEA) of .431, 90% confidence interval (CI): [0.380, 0.485]. The model in which both variables were loaded onto the same factor was a more acceptable fit for the data, with a TLI of 0.94, a CFI of 0.97, and a RMSEA of .124, 90% confidence interval (CI): [0.063, 0.187]. The two-factor model fit the data significantly better than a single-factor solution ($\chi^2(1)=176.34$, $p<0.001$). Thus, mindsets about remote work appeared to be distinct from mindsets about intelligence.

Mindsets and Emotions During Remote Work

Then, we tested how mindsets about remote work predicted employees' emotional well-being during remote work. Since measures of positive and negative emotion were collected over the course of three weeks, we time lagged the variables of positive and negative emotion so that we tested how positive and negative emotions in Week 1 predicted productivity in Week 2, and how positive and negative emotions in Week 2 predicted productivity in Week 3, controlling for

same-week positive and negative emotion. This allows us to test whether positive and negative emotions seemed to have a subsequent effect on productivity in following weeks.

To test Hypotheses 1 and 2, we estimated two mixed-effects linear models in which we predicted the extent to which participants felt either positive or negative emotions while working with a variable indicating participants' mindsets about remote work, controlling for the timepoint at which data were collected and demographic and individual difference variables described above. Our model included a random intercept for each participant to account for repeated measures across participants. In these models, we included 87 participants who completed all of the weekly measures in the study and omitted participants who had missing data for one or more of the weeks. However, patterns of significance are the same when all available data from the 113 participants are retained in the analyses.

Employees' mindsets about the nature of remote work predicted the levels of positive and negative emotion they experienced while adjusting to remote work during the pandemic (see Table 1 for unstandardized regression coefficients). Employees who endorsed a more fixed mindset about remote work experienced more negative emotion during remote work, B=0.20, 95% confidence interval (CI): [0.04, 0.37], SE=0.10, t(66.00)=2.12, p=0.038, supporting Hypothesis 1. Employees who endorsed a more fixed mindset about remote work also experienced less positive emotion during remote work, B=-0.24, 95% CI: [-0.39, -0.09], SE=0.09, t(66.00)=-2.69, p=0.009, supporting Hypothesis 2.

Notably, mindsets about intelligence did not predict employees' outcomes in the same way when we substituted mindsets about intelligence for mindsets about remote work in our linear models. The extent to which employees endorsed a fixed mindset about intelligence did not predict the extent to which they experienced negative emotion during remote work, B=-0.03, 95% CI: [-0.16, 0.11], SE=0.08, t(66.00)=-0.37, p=0.715, or the extent to which they experienced positive emotion during remote work, B=0.05, 95% CI: [-0.08, 0.17], SE=0.07, t(66.00)=0.62, p=0.536. This suggests that effects were specific to mindsets about remote work rather than mindsets about other traits more broadly. See Figure 1, which depicts the effect of mindsets about intelligence and mindsets about remote work on positive and negative emotions during remote work.

Mindsets and Productivity During Remote Work

Finally, we tested whether the differences in positive and negative emotion prompted by more fixed mindsets about remote work affected how employees gauged their productivity during remote work. In a mixed-effect linear model, we predicted employees' perceived productivity in weeks 2 and 3 with the variable indicating mindsets about remote work, time-lagged and same-week positive and negative emotion, and the control variables. When excluding the emotion variables, mindsets about remote work predicted marginally significantly decreased productivity in subsequent weeks, B=-0.20, 95% CI: [-0.39, -0.02], SE=0.11, t(66.00)=-1.89, p=0.064, and this effect was reduced when controlling for positive and negative emotions, B=0.03, 95% CI: [-0.09, 0.16], SE=0.07, t(65.21)=0.42, p=0.677.

Employees experiencing more negative emotion in the previous week predicted lower productivity in the subsequent week, B=-0.27, 95% CI: [-0.49, -0.06], SE=0.11, t(138.51)=-2.33, p=0.021, over and above the extent to which experiencing negative emotion in the same week predicted decreased productivity that same week, B=-0.35, 95% CI: [-0.55, -0.13], SE=0.11, t(144.30)=-3.11, p=0.002. However, the extent to which employees experienced positive emotion in the previous week did not predict productivity in the subsequent week, B=-0.13, 95% CI: [-0.33, 0.06], SE=0.11, t(146.76)=-1.22, p=0.224; experiencing more positive emotion in the

same week did predict increased productivity that same week, B=0.54, 95% CI: [0.35, 0.75], SE=0.11, t(142.41)=5.03, p<0.001.

To test Hypothesis 3, we created a 95% confidence interval for the indirect effect of mindsets on productivity through increased negative emotion using 5,000 samples. This confidence interval did not include zero: [-0.13, -0.01], supporting our mediational hypothesis. We then created a 95% confidence interval for the indirect effect of mindsets on productivity through decreased positive emotion using 5,000 samples and it did include zero: [-0.02, 0.10], thus suggesting that fixed mindsets about remote work mainly decreased productivity in subsequent weeks because these mindsets prompted increase negative emotion in prior weeks, rather than because these mindsets reduced positive emotion in prior weeks. See Figure 2.

Discussion

During the COVID-19 pandemic, employees who were required to rapidly adjust to remote work fared better when they held the mindset that remote work is a skill that can be learned and developed, rather than something that is set in stone. Employees who agreed that people simply either are or are not the kind of person who can work remotely tended to feel more negative and less positive emotion during the course of remote work. Further, the increased negative emotion that employees with this mindset experienced tended to undermine their productivity in subsequent weeks, while positive emotion predicted same-week productivity.

The current study makes a novel contribution to the literature on individual differences that predict adjustment to remote work (e.g., self-efficacy, personality) (*4*, *5*), highlighting mindsets about the fundamental nature of remote work as a new kind of individual difference that predicts adjustment. This research also adds the literature on fixed and growth mindsets and their influence on outcomes across a wide variety of contexts, showing how specific mindsets about remote work predicts employee well-being during remote work. Notably, mindsets about remote work uniquely predicted outcomes, while mindsets about intelligence did not. This corroborates other research indicating that mindsets are domain specific (*23*) and suggests that interventions that target building a growth mindset in one broader domain (e.g., intelligence) may not improve outcomes when it comes in specific contexts (e.g., remote work).

This research thus pinpoints mindsets about remote work as a potentially fruitful point for intervention when companies transition employees to remote work. Companies could equip employees beginning remote work with information that depicts it as a skill that can be learned (e.g., recommending practical strategies that facilitate remote work) and/or ask employees to engage in activities that facilitate a growth mindset about remote work (e.g., asking employees to reflect each week on what they learned about working remotely). In addition, this research holds implications for software providers and remote work platforms to offer tutorials and other means to facilitate a growth mindset in users in order to make their experience with the software more positive and to increase their perceived productivity.

While the current research was conducted under extreme circumstances, as employees began remote work in a global crisis, the findings could extend to employees who are shifting to remote work for a variety of reasons. How mindsets about remote work predict outcomes under more mundane circumstances should be examined in future research. Although perceived productivity, as measured in this study, is often predictive of actual performance (*24*), future studies that complement these findings by examining measures of objective productivity (e.g., quality or quantity of work produced) would also be beneficial. Finally, research is needed to examine interventions to change a fixed mindset about remote work.

Conclusion

To create a brighter future of work, organizations should consider how employee mindsets affect responses to changes in the nature and structure of work, such as increased opportunities for remote work. Remote work may be readily embraced by employees who believe people can develop what it takes to work remotely, but risks disadvantaging those who view remote work as an immutable skill. Organizations that adopt strategies to cultivate adaptive mindsets among their employees, including growth mindsets about remote work, may help employees to thrive in times of crisis and times of greater stability.

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Table 1

Unstandardized regression coefficients predicting employees' positive and negative emotions and felt productivity during remote work.

Dependent variable	Positive emotions (Weeks 1 and 2)	Negative emotions (Weeks 1 and 2)	Productivity (Weeks 2 and 3)
Key predictors			
1. Mindsets about remote work	-0.24** [-0.39, -0.09] (0.09)	0.20* [0.04, 0.37] (0.10)	0.03 [-0.09, 0.16] (0.07)
2. Lagged negative emotion	-	-	-0.27* [-0.49, -0.06] (0.11)
3. Lagged positive emotion	-	-	-0.13 [-0.33, 0.06] (0.11)
4. Same week negative emotion	-	-	-0.35** [-0.55, -0.13] (0.11)
5. Same week positive emotion	-	-	0.54*** [0.35, 0.75] (0.11)
Within-level controls			
1. Measurement week	-0.02 [-0.13, 0.09] (0.06)	-0.13* [-0.24, -0.02] (0.05)	-0.08 [-0.26, 0.10] (0.09)
Between-level controls			
1. Age	0.01 [-0.01, 0.03] (0.01)	-0.01 [-0.04, 0.01] (0.01)	-0.00 [-0.02, 0.01] (0.01)
2. Gender	-0.12 [-0.44, 0.20] (0.18)	0.38^{+} [0.04, 0.72] (0.20)	0.16 [-0.09, 0.41] (0.15)
3. Extraversion	0.03 [-0.11, 0.16] (0.08)	-0.16^{+} [-0.31, -0.02] (0.08)	-0.02 [-0.13, 0.08] (0.06)
4. Agreeableness	0.18 [-0.05, 0.41] (0.13)	0.10 [-0.15, 0.35] (0.14)	0.09 [-0.09, 0.27] (0.11)
5. Conscientious-ness	-0.01 [-0.20, 0.18]	-0.14 [-0.35, 0.06]	0.11 [-0.04, 0.26]

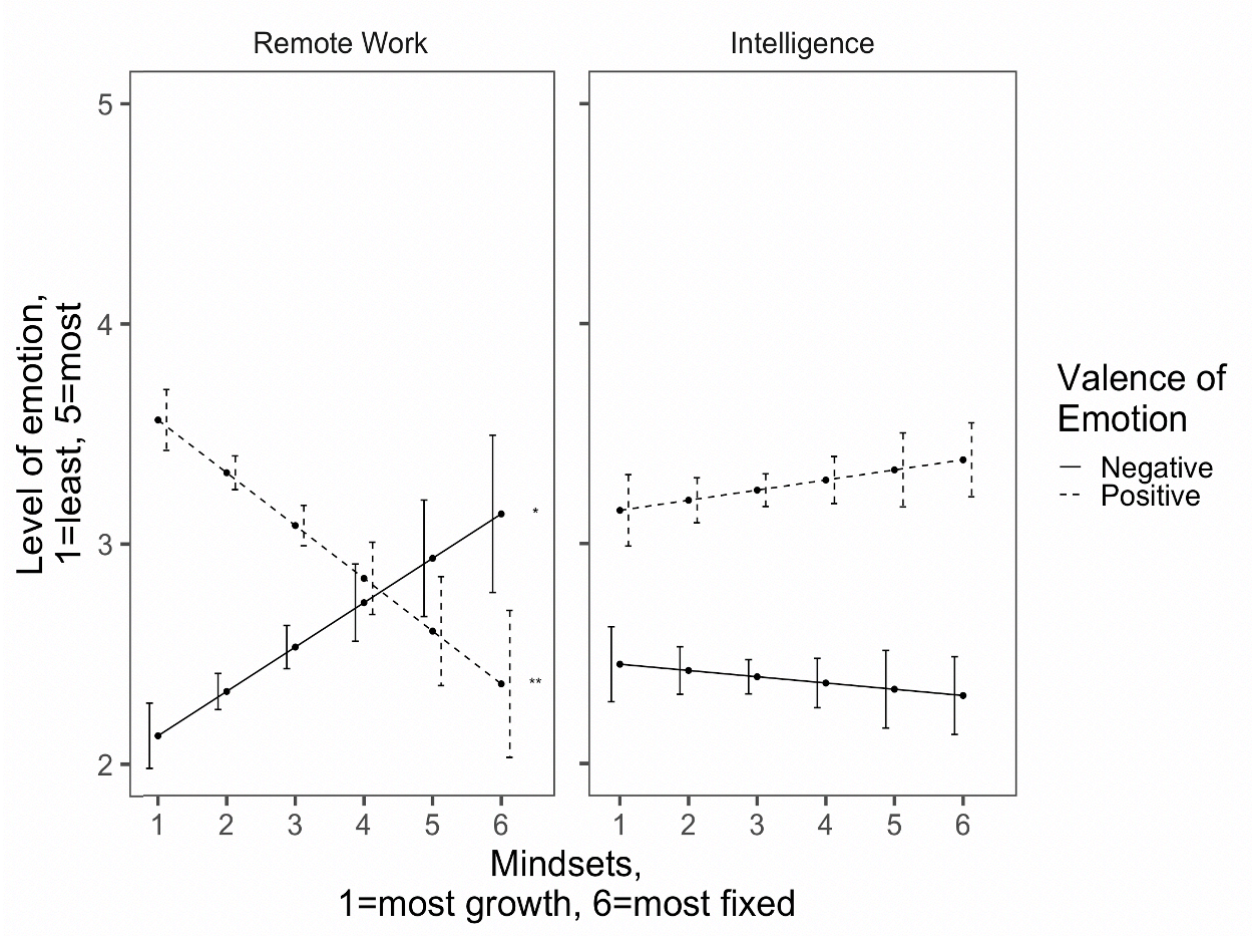
	(0.11)	(0.12)	(0.09)
6. Neuroticism	-0.14	0.33**	0.02
	[-0.30, 0.03]	[0.15, 0.50]	[-0.11, 0.16]
	(0.10)	(0.10)	(0.08)
7. Openness to experience	0.03	-0.02	0.03
	[-0.20, 0.26]	[-0.26, 0.23]	[-0.15, 0.21]
	(0.13)	(0.14)	(0.10)
8. Work segmentation	-0.03	-0.03	0.05
	[-0.13, 0.07]	[-0.14, 0.07]	[-0.02, 0.13]
	(0.06)	(0.06)	(0.04)
9. Children in household	-0.13	0.35**	0.17*
	[-0.32, 0.05]	[0.14, 0.53]	[0.03, 0.32]
	(0.11)	(0.11)	(0.09)
10. Adults in household	-0.02	-0.10	-0.07
	[-0.25, 0.22]	[-0.36, 0.15]	[-0.24, 0.12]
	(0.14)	(0.14)	(0.11)
11. Have dedicated office space	0.05	-0.12	0.09
	[-0.25, 0.35]	[-0.44, 0.20]	[-0.14, 0.32]
	(0.17)	(0.19)	(0.14)
12. Employment	-0.01	-0.40	-0.34^{+}
	[-0.41, 0.39]	[-0.82, 0.03]	[-0.65, -0.02]
	(0.23)	(0.25)	(0.18)
13. Education	0.08	-0.10	-0.02
	[-0.09, 0.25]	[-0.28, 0.07]	[-0.15, 0.11]
	(0.10)	(0.10)	(0.06)
14. Job hierarchy	0.04	0.03	-0.01
	[-0.09, 0.16]	[-0.10, 0.15]	[-0.10, 0.07]
	(0.07)	(0.07)	(0.05)
15. Income	-0.03	0.01	-0.04
	[-0.14, 0.09]	[-0.11, 0.13]	[-0.13, 0.05]
	(0.07)	(0.07)	(0.05)
16. Prosocial motivation	0.01	-0.05	0.02
	[-0.13, 0.14]	[-0.19, 0.10]	[-0.09, 0.12]
	(0.08)	(0.08)	(0.06)
17. Intrinsic motivation	0.19*	-0.01	-0.17*
	[0.03, 0.34]	[-0.18, 0.15]	[-0.29, -0.04]
	(0.09)	(0.10)	(0.07)
18. Extrinsic motivation	0.06	-0.09	-0.03
	[-0.06, 0.18]	[-0.21, 0.04]	[-0.12, 0.06]
	(0.07)	(0.07)	(0.05)
19. Family motivation	-0.12^{+}	0.15*	-0.02
	[-0.23, -0.01]	[0.04, 0.27]	[-0.11, 0.06]
	(0.06)	(0.07)	(0.05)
Intercept	1.68	3.01^{+}	0.15
	[-0.85, 4.21]	[0.30, 5.71]	[-1.92, 2.22]
	(1.47)	(1.57)	(1.22)

Marginal R^2	0.26	0.37	0.51
N	87	87	87

Note. $^{+}$ indicates $p < 0.10$, * indicates $p < 0.05$, ** indicates $p < 0.01$, *** indicates $p < 0.001$. The analyses include 87 participants who completed measures at all timepoints, but results are similar when all available data from 113 employees are used in analyses. 95% confidence intervals for regression coefficients are reported in brackets below each coefficient, and standard errors for regression coefficients are reported below each unstandardized regression coefficient in parentheses. Gender was coded as men 0, women as 1. Employment was coded as full-time 0, part-time 1. Education was coded as primary school 1, secondary school 2, apprenticeship 3, *matura* (high school) 4, bachelor degree 5, masters degree 6, and doctoral degree 7. Income was coded as less than 30,000CHF 1, 30,000-59,999CHF 2, 60,000-89,999CHF 3, 90,000-119,999CHF 4, 120,000-149,999CHF 5, 150,000-179,999CHF 6, More than 180,000CHF 7. Job hierarchy was coded as staff 1, management 2, middle management 3, senior management 4, CEO/owner 5.

Figure 1

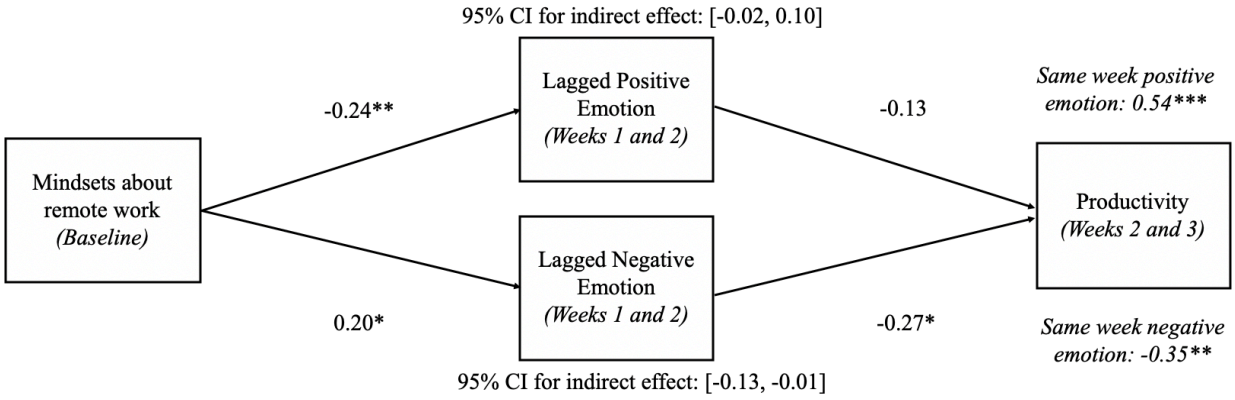
Employees who endorsed a more fixed mindset about remote work felt less positive and more negative emotions while working remotely because of the COVID-19 pandemic; in contrast, employees' endorsement of a fixed mindset about intelligence did not predict positive or negative emotions during remote work.



Note. $^{+}$ indicates $p < 0.10$, * indicates $p < 0.05$, ** indicates $p < 0.01$, *** indicates $p < 0.001$. Error bars represent the standard error of the mean.

Figure 2

Employees holding a more fixed mindset about remote work predicted increased negative emotion during remote work, which in turn undermined employees' perceived productivity during remote work; while employees holding a more fixed mindset about remote work predicted decreased positive emotion during remote work, this did not affect perceived productivity during remote work.



Note. * indicates $p < 0.05$, ** indicates $p < 0.01$, *** indicates $p < 0.001$. Measures of positive and negative emotion were time lagged so that positive and negative emotions in Week 1 predicted productivity in Week 2, and positive and negative emotions in Week 2 predicted productivity in Week 3, controlling for same-week positive and negative emotion.