

Buying green in times of social insecurity

The effects of insecure employment on the purchase of organic food

Torsten Masson (Germany) | University of Leipzig

Dr. Ortrud Leßmann (Germany and Austria) | ifz. International Research Centre for Social Ethics, Salzburg and Helmut Schmidt University, University of the Federal Armed Forces, Hamburg

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1 Introduction

The sustainable development goals offer an integrated picture of possible transitions to sustainable development. They include social, economic and ecological goals, as well as goals for countries on various levels of economic development. Thus, they acknowledge that the transition to sustainability is a collective task that must be accomplished by humanity as a whole. They mention both sustainable consumption (SDG 12) and employment conditions (SDG 8). However, the literature linking decent work and behavioural change towards sustainability is still scarce. This paper aims to contribute to filling this gap by looking at the effects of growing employment insecurity on sustainable consumption, as exemplified by the purchase of organic food in the case of Germany.

2 Growing employment insecurity

The issue of insecure employment has been a major socio-economic concern since the rise of unemployment beginning in the 1970s. Both unemployment and non-standard employment have increased. The latter comprises temporary or part-time employment, temporary agency work and some newly created instruments of labour market policies such as support for self-employment. Insecurity in employment has triggered a rise in inequality and undermined the participation of those with several spells of unemployment or precarious work. Their impoverishment could initially be alleviated by social security payments and deviations from standard employment. However, it is not just poor and badly educated persons that face these precarious employment conditions. Unemployment has befallen all layers of employee (Castel and Dörre 2009). Thus, the upcoming insecurity has brought insecurity about labour market participation into the midst of society (Burzan 2014). The outstanding effect of precarity is that people in precarious conditions cannot make effective plans for the future (Bourdieu 1979). They miss agency in a fundamental way (Standing 2011).

Empirically this is supported by the negative impact of job insecurity on long-term projects such as buying a home, marrying or having a child (Lozza, Libreri, and Bosio 2013). Employment insecurity has also been shown to be a motivation for precautionary savings—especially with regard to the consumption of durables (Benito 2005; Bowman 2013). Furthermore, there is evidence that subjective insecurity is more important than the objective current employment conditions in orienting daily consumption (Lozza, Libreri, and Bosio 2013). This is in line with the assumption that job insecurity can be compensated by other factors (e.g. the income provided by other household members) and need not lead to precarity of living conditions.

Looking for a measure that indicates precarious living conditions if neither the social network (e.g. other household members) nor the wealth and social security entitlements accumulated through life can compensate for the reduced income, this study uses employment history, measured by the number of unemployment spells and job changes. Employment history has a lasting effect on the subjective employment insecurity and also defines much of what a person becomes entitled to in modern welfare states, and the resulting vulnerability of the person. Furthermore, it does not refer to a specific job, but rather to employment status over a longer period of time.

3 The present research

The present research aims to investigate the links between employment insecurity and intentions to purchase organic food (as an example of costly pro-environmental behaviour (Held and Haubach 2017)). Empirical analysis is based on data from the Innovation Sample of the German Socio-Economic Panel (GSOEP-IS). We assume that insecure employment is positively associated with intentions to buy organic food. More specifically, we expect that high levels of insecure employment (i.e. a high number of past unemployment spells, frequent job changes) are accompanied by more anticipated income constraints and thus decrease people's willingness to pay a premium for pro-environmental products. Furthermore, the negative effect of insecure

employment on organic food purchases should remain significant after controlling for participants' current household income and other socio-economic and sociocultural characteristics, including environmental concern, level of education, age or gender. Previous research has found that income is positively correlated with the frequency of organic food purchases (Aertsens et al. 2009; Leßmann and Masson 2015). In contrast, the effects of employment insecurity should be attributable not to changes in the current income situation but rather to uncertainty about future employment opportunities (i.e. precarious employment). Albeit somewhat exploratory, we also aim to identify possible boundary conditions for the effects of employment insecurity (see below) and to investigate the interplay of 'objective' employment insecurity and perceived insecurity (i.e. worries about one's own future). That is, we expect that employment insecurity will have a greater impact upon behavioural intentions when accompanied by high levels of perceived insecurity (Hense 2015).

4 Data and measures

The data for this study was retrieved from the 2012 wave of the GSOEP-IS. As a result of our focus on employment insecurity, we restricted the sample to respondents aged between 25 and 65.¹ The final sample included 455 respondents (56.9% female, $M_{age} = 47.76$ years, $SD_{age} = 11.62$ years). All data used was cross-sectional. We applied multiple linear regression analysis (with interaction tests) to investigate our assumptions.

Table 1 presents the model variables. The GSOEP-IS contained different indicators of employment insecurity, including the number of unemployment spells in the last 10 years, the number of job changes in the last 10 years, fixed-term contracts and temporary agency work. Yet sufficient data was only available for the number of unemployment spells and jobs during the last 10 years. We

1 In Germany, the working age of the population usually ranges from 15 to 65 years. However, we adjusted the sample to better fit our measure of employment insecurity (i.e. number of unemployment spells and job changes in the last 10 years).

therefore collapsed both indicators into a combined measure of employment insecurity (see Table 1). Education (low, middle, high) was assessed following the International Standard Classification of Education (ISCED), and equalised disposable income was calculated based on the modified OECD equivalence scale (Hagenaars, Vos, and Zaidi 1994).

Variable	Question	Scale
Organic food purchase		
Intention to purchase organic food (one item)	'How often do you intend to purchase organic food in the future?'	1 'never' – 5 'very often'
Perceived barriers to organic food purchases (three items, Cronbach's $\alpha = .77$)	'It is difficult for me to purchase organic food because ... [time constraints, no suitable shops available, no suitable products available].'	1 'totally disagree' – 5 'totally agree'
Insecure employment		
Employment insecurity (two items, $r(438) = .57$)	'How often have you been unemployed during the last 10 years?'	0 = never been unemployed, 1 = one unemployment spell, 2 = two unemployment spells, 3 = three or more unemployment spells
	'How many jobs did you have during the last 10 years?'	1 = one job, 2 = two jobs, 3 = three jobs, 4 = four jobs, 5 = five or more jobs
Worries about own future (one item)	'How much do you worry about your own future?'	1 = 'I don't worry at all' – 3 'I worry to a great extent'

Variable	Question	Scale
Others		
Environmental concern (15 items, Cronbach's $\alpha = .74$)	Example items: 'We are approaching the limit of the number of people the Earth can support.' 'Plants and animals have as much right as humans to exist.'	1 'totally disagree' – 5 'totally agree'

Table 1: Model variables

5 Results

We submitted intentions to buy organic food to multiple regression analysis, including employment insecurity, environmental concern, as well as a number of other covariates (education, equivalised income, etc.). The results are presented in Table 2. In line with our expectations, purchase intentions were negatively affected by employment insecurity ($\beta = -.14, p < .01$). Bootstrapping (5,000 bootstrap samples) supported this result. That is, the more often respondents had been unemployed/changed jobs during the last 10 years, the less they intended to buy organic food. Importantly, these effects remained stable after the inclusion of environmental concern, equivalised income and other socio-economic characteristics in the analysis. The results are thus not simply attributable to less pro-environmental attitudes or less (current) household income among those with high employment insecurity. Rather, persons who have repeatedly experienced unemployment and who thus feel less secure about their job opportunities and future income are less inclined to buy organic food. Corroborating past studies (Hughner et al. 2007), our findings also indicated that better (vs worse) educated respondents, younger (vs older) persons, and—descriptively—more (vs less) environmentally concerned participants intended to purchase organic food more often.

To explore the possible boundary conditions of organic food purchases, we conducted multiple regression analysis with interaction tests (Aiken and West 2010), including level of education and environmental concern as possible moderators.² We expected that employment insecurity would have a higher impact upon intentions to buy organic food for (1) less educated respondents and (2) respondents who describe themselves as more concerned with environmental issues. We reasoned that less educated persons—in general—would be more affected by insecure (or precarious) employment and thus more susceptible to anticipated income constraints. Similarly, for respondents who are less concerned with the environment, employment insecurity may not influence their, per se, lower levels of organic food purchases. The results supported our assumptions and showed a negative main effect of employment insecurity. More interestingly, this main effect was qualified by a positive interaction effect of employment insecurity and level of education, unstandardised $b = .13$, $t(383) = 2.13$, $p < .05$ (see Figure 1). Further inspection of the interaction effect revealed that employment insecurity was negatively associated with intentions to buy organic food in the case of a low level of education (-1 standard deviation), $b = -.27$, $t(383) = -3.40$, $p < .01$, but not for better educated participants ($+1$ standard deviation), $b = -.02$, $t(383) = -.18$, $p = .86$. Consistent with our expectations, we also found an interaction effect of insecurity and environmental concern, $b = -.12$, $t(379) = -2.12$, $p < .05$ (see Figure 2).³ Simple slope analysis revealed that employment insecurity was negatively correlated with purchase intentions at high levels of environmental concern ($+1$ standard deviation), $b = -.32$, $t(379) = -3.48$, $p < .01$, but not for respondents who described themselves as less concerned (-1 standard deviation), $b = -.08$, $t(379) = -1.11$, $p = .27$. These results provide further evidence of the negative effect of employment insecurity on financially demanding pro-environmental behaviour.

Finally, we submitted intentions to purchase organic food to multiple regression analysis with interaction tests, including employment insecurity, worries

2 Following Aiken and West (1991), all interactions were probed at one standard deviation above and below the mean of the moderators.

3 Two outliers with studentised residuals exceeding $|2|$ were excluded for this analysis. Keeping the outliers in the analysis changed the significance of employment insecurity to $p = .06$.

about their own future, as well as their interaction term to investigate the interplay of 'objective' employment insecurity and perceived insecurity (i.e. worries about their own future).⁴ Consistent with our expectations, we found an interaction effect of employment insecurity and worries, $b = -.14$, $t(380) = -2.31$, $p < .05$ (see Figure 3).⁵ Inspection of the interaction effect showed that employment insecurity was negatively associated with purchase intentions in the case of high worries (+1 standard deviation), $b = -.26$, $t(380) = -3.46$, $p < .01$, but not for respondents who were less worried about their future (-1 standard deviation), $b = .02$, $t(380) = 0.82$, $p = .82$. That is, frequent experiences of unemployment/frequent job changes only influenced the purchase of organic food when accompanied by high levels of perceived insecurity. In contrast, when respondents were confident about their future, 'objective' employment insecurity did not affect their purchase intentions.

4 The correlation between employment insecurity and worries about own future was small to moderate ($r = .22$).

5 Four outliers with studentised residuals exceeding |2| were excluded from this analysis. Keeping the outliers in the analysis changed the significance of employment insecurity to $p = .085$.

	β	T	R ²	adj. R ²	F
			.11	.10	7.05***
Sex (0 = male, 1 = female)	.07	1.41			
Age	-.19	-3.74**			
Equivalised household income	.08	1.40			
Education (1 = low, 2 = middle, 3 = high)	.12	2.14*			
Environmental concern	.08	1.66			
Barriers to organic food purchases	-.10	-2.08*			
Employment insecurity	-.14	-2.64**			

Note. * $p < .05$; ** $p < .01$

Table 2: Regression of intentions to purchase organic food purchase on employment insecurity and socio-economic characteristics

6 Conclusion: pro-environmental behaviours need social policy

The aim of this paper was to investigate the influence of employment insecurity on the purchase of organic food. Employment insecurity is regarded as a phenomenon of growing importance (International Labour Office 2015). It impairs people's ability to make plans for the future (and to have control over their lives), and thus induces a short-term perspective. In contrast, pro-environmental behaviour is often characterised by a long-term perspective, for example, to fight climate change and to preserve global ecosystems for future generations. Yet, such a time horizon may be difficult to sustain (psychologically) in times of insecure employment.

As hypothesised, we found evidence of a negative effect of employment insecurity on intentions to buy organic food. In other words, people who had experienced frequent spells of unemployment and/or frequent job changes were less inclined to purchase organic food. Furthermore, our findings indicate that the negative effect of employment insecurity was more pronounced for less educated participants and for people who reported to be more concerned with environmental issues. This corroborates our assumption that insecurity may prevent individuals from living up to their convictions (environmental concern), especially those who are most vulnerable to unemployment (i.e. less educated persons). Finally, high levels of employment insecurity only led to lower intentions to buy organic food for participants who, at the same time, were worried about their future. Our findings thus suggest an interplay of ‘objective’ and ‘subjective’ employment insecurity to jointly influence organic food purchases (Lozza, Libreri, and Bosio 2013). This is in line with previous research that has provided evidence for the effects of subjective precariousness on a number of job and family-related behaviours and decisions (Hense 2015). Yet, further research is needed to quantify the relative predictive value of perceived employment insecurity and more objective measures of such insecurity on pro-environmental behaviour.

In sum, the results show that awareness-raising—as frequently requested—is not sufficient to bolster costly pro-environmental consumption. Our findings indicate that pro-environmental behaviour may fail not just because of a lack of concern with the environment but also because individuals face economic insecurity that impedes them from acting on their beliefs and even undermines their self-confidence. Put somewhat provocatively, pro-environmental behaviour requires social policy that enhances people’s opportunities to act on their pro-environmental beliefs. The results also confirm the cogency of going beyond socio-economic factors such as income, gender and current labour-market inclusion as predictors of pro-environmental behaviour: employment insecurity was found to affect organic food purchases after controlling for the effects of other factors. In other words, the negative correlation between insecurity and intentions to buy organic food is not simply attributable to changes in current household income. Our results rather show that frequent experiences of unemployment explained additional variance in purchase intentions. Given the increase in insecure employment (International Labour

Office 2015), our findings thus call for future research that explicitly links employment insecurity and pro-environmental consumption choices.

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