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## **PATHWAYS to ADULTHOOD**

PATHWAYS 13<sup>th</sup> International Workshop

19 – 22 May 2015

Cumberland Lodge, Windsor, UK



*Meeting Sponsored by the Jacobs Foundation*



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# List of Participants

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<b>Name</b>	<b>Institute</b>	<b>Email</b>
<b>Jake Anders</b>	National Institute of Economic and Social Research, UK	jake@jakeanders.co.uk
<b>Meeta Banerjee</b>	University of Michigan	mbanerje@umich.edu
<b>Jenna Cambria</b>	University of Tübingen, Germany	jenna.cambria@ife.uni-tuebingen.de
<b>Anna-Lena Dicke</b>	University of California, Irvine	adicke@uci.edu
<b>Richard Göllner</b>	University of Tübingen, Germany	richard.goellner@uni-tuebingen.de
<b>Clemens Lechner</b>	University of Jena, Germany	clemens.lechner@uni-jena.de
<b>Mark Lyons-Amos</b>	Institute of Education, UK	m.lyons-amos@ioe.ac.uk
<b>Julia Moeller</b>	University of Helsinki, Finland	julia.moeller@helsinki.fi
<b>Katariina Salmela-Aro</b>	University of Helsinki, Finland	katariina.salmela-aro@helsinki.fi
<b>Maria Pavlova</b>	University of Jena, Germany	maria.pavlova@uni-jena.de
<b>Nicola Pensiero</b>	Institute of Education, UK	n.pensiero@ioe.ac.uk
<b>Barbara Schneider</b>	Michigan State University, USA	bschneid@msu.edu
<b>Ingrid Schoon</b>	Institute of Education, UK	i.schoon@ioe.ac.uk
<b>Rainer Silbereisen</b>	University of Jena, Germany	rainer.silbereisen@uni-jena.de
<b>Florencia Sortheix</b>	University of Helsinki	Florencia.sortheix@helsinki.fi
<b>Ulrich Trautwein</b>	University of Tübingen, Germany	ulrich.trautwein@uni-tuebingen.de
<b>Heta Tuominen-Soini</b>	University of Helsinki, Finland	heta.tuominen@helsinki.fi



# Meeting Programme

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## Tuesday 19 May 2015 - Meeting will take place in the Drawing Room

**15:00 – 15:30**      **Arrival and Welcome**

**15:30 – 17:00**      **Introductory meeting**

**19:15**                **Dinner**

## Wednesday 20 May 2015 – Meetings will take place in the Library

**08:15 – 09:00**      **Breakfast**

**09:00 – 09:15**      **Presentation Introductions**

**09:15 – 10:15**      Paper Presentations (15 minutes):

- *Clemens Lechner*
- *Jake Anders*
- *Meeta Banerjee*
- *Heta Tuominen-Soini*

**10:15 – 11:00**      Questions and discussion of papers

**11:00 – 11:30**      **Tea & Coffee Break**

**11:30– 13:00**      Methods Workshop

**11:30 – 13:00**      Steering Group Meeting (Clarke Room)

**13:00– 14:00**      **Lunch**

**14:00 – 16:00**      Round table discussions on methodological issues

**16: 00 – 16:30**      **Tea & Coffee Break**

**16:30 – 17:00**      Round up

**19:15**                **Dinner**



# Meeting Programme

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## Thursday 21 May 2015 – Meetings will take place in the Library

<b>08:15 – 09:00</b>	<b>Breakfast</b>
09:00 – 09:15	<b>Presentation Introductions</b>
09:15 – 10:00	Paper Presentations (15 minutes): <ul style="list-style-type: none"><li>• <i>Florencia Sortheix</i></li><li>• <i>Julia Moeller</i></li><li>• <i>Maria Pavlova</i></li></ul>
10:00 – 10:45	Questions and discussion of papers
<b>10:45 – 11:15</b>	<b>Tea &amp; Coffee Break</b>
11:15 – 13:00	Poster presentations  (5 minutes to present each poster followed by time for individual consultations and questions): <ul style="list-style-type: none"><li>• <i>Nicola Pensiero</i></li><li>• <i>Anna-Lena Dicke</i></li><li>• <i>Jenna Cambria</i></li><li>• <i>Richard Göllner</i></li><li>• <i>Mark Lyons-Amos</i></li></ul>
<b>13:00 – 14:00</b>	<b>Lunch</b>
14:00 – 18:00	<b>Sightseeing trip to Savill Garden</b>
<b>19:15</b>	<b>Dinner</b>

## Friday 22 May 2015 – Meetings will take place in the Library

<b>08:15 – 09:00</b>	<b>Breakfast</b>
09:00 – 11:00	Meetings with PIs (Clarke room is also available)
<b>11:00 – 11:30</b>	<b>Tea &amp; Coffee Break</b>
11:30 – 13:00	Round up and future plans
<b>13:00 – 14:00</b>	<b>Lunch and departure</b>



## METHODS WORKSHOP

The Workshop will deal with the following topics:

- 1) Basic Syntax for Latent Profile Analysis (LPA) in Mplus (Julia)
- 2) Multigroup comparison of Latent Profiles and their prevalence (Julia and Clemens)
- 3) Confirmatory Latent Profile Analyses (Julia)
- 4) Multilevel Mixture Models (Mark)
- 5) Using mixture models for dealing with unobserved heterogeneity, and using STATA's GLLAMM for this purpose (Jake).



### **Who Reaps the Benefits of Social Change? Personality and its Socioecological Boundaries**

Clemens M. Lechner & Rainer K. Silbereisen

*Center for Applied Developmental Science (CADS), University of Jena, Germany*

Current social change creates *new lifestyle options* and *new learning opportunities*, which hold the potential to foster personal growth and flourishing. But who actually experiences these benefits of social change? This study investigated whether the personality trait *exploration* (i.e., the tendency to seek out and embrace novel experiences) is related to differential experiences of these potential benefits of social change, and whether socioecological conditions moderate this association. Specifically, we hypothesized that people higher in trait exploration experience a greater increase in these benefits of social change across the past five years. Further, we hypothesized that people derive the strongest benefits from being high in exploration in social ecologies that provide more opportunities for exploring these benefits; we used regional divorce rates and regional internet adoption rates to capture the socioecological conditions for exploring new lifestyle options and new learning opportunities, respectively. Analyses in two parallel samples of adults aged 20–46 years from Germany and Poland (total  $N = 5,013$ ) supported our predictions. Individuals higher in trait exploration experienced a stronger increase in lifestyle options, and this association was stronger in regions with higher divorce rates. Likewise, people higher in trait exploration experienced more new learning opportunities, especially in regions with a higher internet adoption rate. We conclude that individuals with a more agentic and exploratory personality are better equipped to “reap” the benefits of social change – but more so in social ecologies that support and facilitate their exploratory tendencies than in less supportive ecologies.



### **The influence of socio-economic status on changes to young people's expectations of applying to university**

Jake Anders

*UCL Institute of Education*

A much larger proportion of English 14 year olds expect to apply to university than ultimately make an application by age 21, but the proportion expecting to apply falls from age 14 onwards. In order to assess the role of socio-economic status in explaining changes in expectations, I apply duration modelling techniques to data from the Longitudinal Study of Young People in England, analysing transitions in young people's expectations both from being 'likely to apply' to being 'unlikely to apply' and vice versa. I find that young people's socio-economic background has a significant association with changes in expectations, even once I control for prior academic attainment and other potentially confounding factors. This suggests more could usefully be done to maintain the educational expectations of academically able young people from less advantaged families. Furthermore, young people's backgrounds affect their responsiveness to new evidence on academic attainment at age 16, contributing to the socio-economic gradient in expectations.



### **Racial Socialization Profiles of African American Parents and Youth: It's Relation to Gender, Parenting and Racial Discrimination**

Meeta Banerjee<sup>1</sup>, Stephen Peck<sup>1</sup>, Oksana Malanchuk<sup>1</sup> & Jacque Eccles<sup>2</sup>

<sup>1</sup>University of Michigan, <sup>2</sup>University of California, Irvine

Racial socialization has been defined as the messages, behaviors and attitudes surrounding race that are transmitted to children. Within this burgeoning field, scholars have studied whether racial socialization profiles exist and their relation to youth outcomes (Neblett et al., 2008). However, majority of these profiles were created from either parent or youth report; thus, not providing a clear picture of what youth are “receiving” and parents are actually providing. Additionally, research has been mixed with regards to gender differences in racial socialization practices (Hughes et al., 2006). Therefore, we do not know if different profiles would be more beneficial for females versus males. Furthermore, we do not know if certain profiles are associated with factors of the parent-child relationship (e.g., control, warmth). This study has three aims. First, we explored whether there are different profiles of racial socialization practices in a sample of African American parents and youth. Second, we investigated whether there were differences with regards to the profiles and reports of discrimination in African American males and females. Finally, we examined differences between the profiles and parent-child relationship variables.

The sample from this study came from the Maryland Adolescent Development in Contexts study. The current study used data collected in the youth's 8<sup>th</sup> grade year (W3). There were approximately 680 parents and youth, with 48% of the sample as females. Parent and youth reports of cultural socialization (i.e. participating in ethnic activities) and preparation for bias (i.e. providing coping strategies against discrimination) were used to create the clusters. Parent variables included expectations of racial discrimination, perceived racial discrimination, perceived school discrimination and job-related discrimination. Youth reported on salience of discrimination and perceived stress due to discrimination. We also examined measures of the parent-child relationship.

Racial socialization variables were put in a Ward's cluster and *k*-means relocation analysis to construct socialization profiles at each wave. Wave 3 yielded 4 clusters (Figure 1), while Wave 4 yielded 6 clusters. ANOVAS were conducted separately for males and females. Results indicate there are gender differences with regards to the profiles and racial discrimination (Table 1). Specifically, we find there are significant between group differences with regards to salience of discrimination ( $F [3,328] = 8.21, p < .01$ ) and perceived racial discrimination ( $F [3,328] = 3.39, p < .05$ ). Post-hoc analyses show that cluster 1 (high socializers) are significantly higher compared to the other three clusters. For females, we found significant group differences for salience of discrimination ( $F [3,290] = 10.82, p < .01$ ), expectations for discrimination ( $F [3,290] = 3.65, p < .05$ ), perceived racial discrimination ( $F [3,328] = 3.14, p < .05$ ) and job related discrimination ( $F [3,328] = 0.51, p < .05$ ). These findings indicate there are gender differences with regards to how racial socialization profiles function within racial discrimination. Additionally there are differences regarding profiles and their links to parent-child relationship variables.



### **Math- and English-related achievement goal orientation profiles and their associations to task values, academic well-being, and educational aspirations**

Heta Tuominen-Soini<sup>a</sup> & Katariina Salmela-Aro<sup>ab</sup>

<sup>a</sup>*University of Helsinki, Finland*

<sup>b</sup>*University of Jyväskylä, Finland*

This study focuses on subject-specific motivation and integrates achievement goal, expectancy-value, and academic well-being frameworks. The aim was to investigate students' math- and English-related achievement goal orientation profiles, and how students with different profiles differ in task values (i.e., intrinsic, attainment, and utility values, and cost), more general academic well-being (i.e., school engagement, burnout, perfectionism), and academic achievement and educational aspirations. A person-centred approach and I-States as Objects Analysis procedure were employed. The participants were 16–18-year-old Finnish high school students (I-States  $N=526$ ), who filled in questionnaires twice in the course of high school studies (measurement period 1 year). Using latent profile analysis, four goal orientation groups were identified: students who were *indifferent* (34%), *success-oriented* (29%), and *mastery-oriented* (23%) in both subjects as well as *math-avoidance-oriented* students (14%), who focused on avoiding work in math, but displayed an adaptive motivation in English (girls overrepresented). Both mastery- and success-oriented students strove for learning and gaining good grades in both subjects, valued them, and were engaged, but success-oriented students were characterized by higher perceived cost, social utility, burnout, and maladaptive perfectionism. For math-avoidance-oriented students, the perceived cost of studying math was extremely high and intrinsic value very low, but they scored the highest in English-related intrinsic value. Math-avoidance-oriented students' motivation was highly subject-specific but, among the other students, achievement goals in math and English were congruent. Also, it was typical for the math-avoidance-oriented students to stay in the same group over time. Students' educational aspirations (i.e., the level and field of education) will be explored.



### **Work Values Mediate the Effect of Parental Occupational Status on Emerging Adult's Civic Engagement: A 10-year Longitudinal Study**

Maria K. Pavlova<sup>a</sup>, Clemens M. Lechner<sup>a</sup> & Florencia M. Sortheix<sup>bc</sup>

<sup>a</sup>*Center for Applied Developmental Science, University of Jena, Germany*

<sup>b</sup>*Faculty of Social Research, University of Helsinki, Finland*

<sup>c</sup>*Faculty of Psychology, University of Jyväskylä, Finland*

From sociological research, it is well known that lower socioeconomic status (SES) is linked to lower civic engagement, but hardly any studies have traced psychological pathways that may explain how this effect comes about. In this longitudinal study, we analyzed whether economic disadvantage experienced in adolescence, as expressed by lower family SES, predicted involvement in political and volunteering activities (i.e., civic engagement) 10 years later and whether this effect was mediated by materialistic values. Specifically, we propose that youth who experienced relative economic disadvantage develop more materialistic values, which we operationalized through extrinsic work values (i.e., the importance of a high salary or job security). Individuals with more materialistic values, in turn, may care less about social issues, may become more focused on paid work, and therefore may be less likely to get civically engaged. We used data from the Finnish Educational Transitions (FinEdu) survey conducted in Finland from 2004 to 2014. We used three waves of the study. From Time 1 (2004), when participants were 16-18 years old ( $N = 1301$ ), we used information on their background information and their parents' occupation. Moreover, parental reports of family financial situation, their professional degrees, and unemployment experience were also available for a small subsample. From Time 5/6 (2011,  $N = 1096$ ), we took information on young people's goals and work values, civil status, work situation, and other relevant control variables. From Time 6/7 (2014,  $N = 1137$ ), we used information on their civic engagement. Preliminary results showed that lower family SES predicted higher extrinsic work values, which, in turn, predicted lower engagement in civic activities, and the indirect effects were significant. These effects held after controlling for several other relevant variables. We will discuss the pathway from lower SES to lower civic engagement through materialistic values and address several possible moderators of this relationship.



### **Does Anxiety in Science Classrooms Impair Math and Science Motivation? Gender Differences Beyond the Mean Level**

Julia Moeller<sup>1</sup>, Katariina Salmela-Aro<sup>2</sup>, Jari Lavonen<sup>1</sup>, and Barbara Schneider<sup>3</sup>  
*<sup>1</sup>University of Helsinki, Finland; <sup>2</sup>University of Helsinki & University of Jyväskylä, Finland; <sup>3</sup>Michigan State University, U.S.A.*

This study investigated gender differences in the experience of situational (=state) anxiety among a sample of 274 US and 193 Finnish complementary and high school students (46.9% female; 153 ninth graders, 207 tenth graders, 37 eleventh graders, and 37 twelfth graders).

Three main research questions guided our study: 1) Do male and female students differ in their anxiety during science lessons if in-the-moment state measures are used? 2) How does anxiety affect motivation in science classes? and 3) Do anxiety and its relationship to motivation differ by gender?

We employed the Experience Sampling Method (ESM), a form of time/diary instrument to assess experiences of anxiety in the moment in which they occur, in different contexts, e.g., in and out of school and in specific science lessons.

Males and females did not differ in state anxiety mean levels with in-the-moment measures, which corroborates previous findings. Females experienced less positive affect and intrinsic motivation, and more negative affect and withdrawal motivation in anxious states across all their everyday life experiences. In science lessons, the only consistent finding was that females experienced more stress in anxious situations.

The findings suggest that prior methods for measuring anxiety among females may be related to the measurement instruments that are used (see Goetz et al., 2013) and have important theoretical and practical implications for the assessment and interpretation of gender differences in science classrooms.



### **Warm and Supportive Parenting Dampens Civic Engagement in the Transition to Adulthood**

Maria K. Pavlova<sup>a</sup> & Mette Ranta<sup>b</sup>

<sup>a</sup>*University of Jena, Germany*

<sup>b</sup>*University of Helsinki, Finland*

The positive youth development perspective contends that warm and supportive relationships with parents contribute to a greater willingness of youth to do something for others, including civic contributions (e.g., volunteering), and there is supportive evidence from research on adolescents. However, other studies have actually found negative effects of family support on civic engagement, for which several competing explanations can be found in the literature. Using longitudinal data on Finnish youth from the Finnish Educational Transitions Study (FinEdu), I tested long- and short-term effects of warm and supportive parenting on various indicators of civic engagement in the transition to adulthood and probed their alternative explanations. I used information from four measurement points: 2004 (age 15–18,  $N = 1,301$ ), 2008 (age 20–23,  $N = 1,029$ ), 2011 (age 22–25,  $N = 1,096$ ), and 2014 (age 24–27,  $N = 1,138$ ). Results showed that maternal reports of positive affect in parenting, which were available for a subsample of participants ( $n = 231$ ) in 2004, predicted significantly less frequent political engagement as reported in 2014, whereas youth reports of a positive relationship with their parents in 2011 predicted significantly less frequent volunteering as reported in 2014. These negative effects were robust to controlling for a range of sociodemographic variables in 2004 and 2011, positive personality traits measured in 2008, and feelings of belonging to nonfamilial social contexts in 2011. No significant effects of parenting variables on noncivic organizational activities in 2014 (e.g., hobby associations) emerged. Findings suggest that (too) warm and supportive parenting may prevent youth from caring about broad social issues and getting civically engaged. Self-selection or cultural context does not seem to explain the effects found.



### **Out-of-school-time programmes: an evaluation of their effectiveness using the Longitudinal Study of Young People in England (LSYPE)**

Nicola Pensiero & Francis Green  
*LLAKES centre, UCL Institute of Education*

The proposed research project aims at estimating the effect of out-of-school-time (OST) programmes on GCSE performance in England. OST programmes refer to any form of activity in which the children are involved under the supervision of adults outside the normal school timetable. We focus on programmes that are linked to the academic curriculum as previous research has suggested these are the most beneficial for academic achievement. Since the beginning of 2000s the implementation of some forms of OST programmes has become almost universal among secondary schools (MORI 2004), but there has not yet been a large scale investigation of the effectiveness of these programmes. In the UK there is only one study on the effectiveness of OST programmes and it showed that such programmes are associated with an improvement in GCSE and KS3 performance (MacBeath et al. 2001). The study was conducted in 1997, before OST programmes became largely implemented in schools and surveyed a small and non-representative sample of schools. This project makes use of the longitudinal study of young people in England (LSYPE, 1990 cohort) to update and improve the estimates of the effectiveness of OST programmes in England. It aims at linking the change in academic performance between age 14 (KS3) and 16 (GCSE) to participation in OST programmes in LSYPE members, taking into account individual, social background and school characteristics and using appropriate techniques to deal with the issue of selection into the programme and school unmeasured effects. It shows that OST programmes are moderately effective in enhancing the GCSE achievement and that they can function as a means of social mobility as they are especially beneficial for the children from parents who are unemployed or work in a routine occupation.



### **The Reciprocal Relationship of Teacher Support and Student Motivation and Engagement**

Anna-Lena Dicke & Jacque Eccles  
*University of California at Irvine*

A supportive student-teacher relationship positively affects student motivation and willingness to engage (Wentzel, 2009). However, less is known about how a more positive motivational attitude affects students' perception of their environment, in particular, teacher's supportive behavior. The aim of the current study is to examine the reciprocal relationship of teacher support and student motivation and engagement. Using student and teacher data from the longitudinal MSALT study, the development of student motivation and teacher support across two school years were investigated using cross-lagged analyses within a multilevel cross-classified model. Students' perceptions of teacher support positively predicted the development of students' motivation and engagement at the student and the classroom level. Though smaller in size, students' motivational attitudes also positively predicted their perception of teacher support at both levels. Stronger effects of teacher support on student motivation were found for associations within the first year of middle school than in the last year of elementary school which highlights the need to consider the specific educational context.



### **Interest in STEM: Gender Effects in Higher Achieving Classes**

Jenna Cambria, Benjamin Nagengast & Ulrich Trautwein  
*University of Tübingen*

The disproportionately low number of women in math and science fields has been a focus of research for many years; however, the rapid growth of the STEM job market has led to an even greater focus and need to understand the nuances of the gender disparity in STEM fields (Eccles, 2009; Langdon, McKittrick, Beede, Kahn, & Doms, 2011; Patrick, Care, & Ainley, 2011). Despite the body of literature and volumes that have been written about gender and STEM careers, a question that remains unanswered is how the achievement of a student's class impacts male and female's vocational interests differently. Associations between interest and achievement are often more strongly correlated for males than for females (Eccles, 2009); however, this work has not considered class-level achievement.

The current investigation is part of the research project Transformation of the Secondary School System and Academic Career (TOSCA; see Trautwein, Nagy & Maaz, 2011). The sample consisted of students that were in grade 10. Of the total 3,047 students who were invited to participate in the study, 2,590 participants took part in the achievement tests and a questionnaire containing the vocational interests instrument (85% response rate). We collected data on students' achievement in technology and math, which we considered to be related to STEM subjects and English, German, and reading, which we considered to be less related to STEM subjects; we also included realistic and investigative interests as more related to STEM and artistic, social, enterprising and conventional as less related to STEM (OECD, 2008). Each of the performance assessments were established instruments that have strong psychometric properties and have been used in large scale national and international assessments (see Nagy et al., 2012). We also assessed students' vocational interests using an established German version of the assessment of the Holland Occupational Themes (Bergmann & Ender, 1999; Nagy et al., 2012). Each of the scales had an acceptable Cronbach's alpha coefficient ( $\alpha = .83-.90$ ).

In general, achievement in STEM-related fields tended to be positively correlated with STEM-related career interests and negatively related to vocational interests less related to STEM. Similarly, achievement in areas less related to STEM were positively correlated with vocational interests less related to STEM and negatively related to STEM-related career interests. When these coefficients were calculated separately for males and females, we found that males tended to have more significant associations between achievement and interests than their female counterparts; even when the coefficients were similar in magnitude, the females' coefficients continued to be significant less often due to the larger variance for females than for males. Furthermore, many of these associations had a significant gender interaction with the association of achievement and interest. In terms of frame of reference effects, the direction of the association was consistent; however, in many cases being a female from a high achieving class was associated with a significantly higher correlation between achievement and interest than for males.



### **Opening the Black Box: The Role of Effective Teaching Behaviors in a School Based Prevention Program of Depressive Symptoms**

Richard Göllner, Gabriel Kornwachs, Leona Hellwig, Martin Hautzinger & Ulrich Trautwein

*University of Tübingen, LEAD Graduate School*

School-based prevention and intervention programs are increasingly used to prevent mental health problems in children and adolescents. However, programs that demonstrate positive effects are rarely incorporated in schools, and little is known about the effectiveness of programs when delivered in non-clinical settings. The present study examined the effectiveness of the LARS & LISA prevention program in a large- sample of  $N = 421$  adolescents from 44 gender homogeneous prevention groups by conducting a randomized pretest, posttest, follow-up design. The focus of the study lay on teaching behavior of trainers (regular classroom teacher or health professionals) who delivered treatment sessions of the program. The results showed that there were no differences between regular classroom teachers and professionals in prevention effectiveness for proximal (TISS-P) and distal (CES-D and SDQ) outcomes. Trainers' classroom management, however, revealed a strong and consistent effect at posttest and follow-up. Clarity of instructions and trainers' adherence remained unrelated to study outcomes. The authors discuss effective teaching behavior as necessary precondition for the effectiveness of school-based prevention programs.



### **Identifying processes of Apathy and Disengagement in voting behaviours: a longitudinal analysis of the UK 2010 General Election**

Mark Lyons-Amos  
*UCL Institute of Education*

Voting participation has been falling in the United Kingdom, particularly among youth who exhibit low rates of political participation. Whilst various theories have been advanced as to the cause of this fall, there is a critical distinction between the process by which young people come not to vote; apathy- characterised by an underlying disengagement with the political process- and disengagement- where young people withdraw from political activity due to, for instance thwarted labour market ambitions. This paper attempt to separate the relative influence of these two processes, and assess their relative importance in voting behaviour in the 2010 UK general election. We use data from the LSYPE, a nationally representative cohort study. Underlying political engagement is assessed by three measures; undertaking political activity, undertaking voluntary community work and engagement with education. Low levels of these measures are characterised as apathetic. We use labour market experiences as a mediator variable to separate and quantify disengagement activity.



