

# A Critique and Reframing of Personality in Labour Market Theory

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# Three goals

- First Goal

- Critically examine the theoretical arguments that underlie the literature linking personality traits to economic outcomes.



# Second Goal

- Challenge the notion of neutrality of the labour market



# Third Goal

- Reframe how personality can be useful in understanding labour market dynamics



# Research Questions

- What relationships exist between locus of control and work status?
  - After controlling for locus of control in 1999, are positive and negative labor market outcomes associated with the observed level of locus of control in 2005?
  - Are these relationships robust across different types of models?
  - What kinds of similarities and differences are observed by gender?



# Locus of Control: Definition

- Measures the extent to which individuals believe they have control over the circumstances that affect their lives.



# Locus of Control: Outcome Variable

- Three types of estimation
  - Simultaneous equation modeling with EQS version 6.
  - Three stage least squares with Stata
  - Change in locus of control between 1999 and 2005



# Work Status: Outcome Variable

- Estimation technique

- Two level, multinomial logit with locus of control and other personality traits as predictor variables (HLM version 6).
- Four choices: No market work; unemployment; leadership/management position; market work (non-leadership/management) as excluded category—pooled, cross-sectional data





# Importance

- Locus of control and personality traits are receiving increasing attention by economists
  - Rapidly growing literature on how such variables complement human capital variables in predicting labor market outcomes, including observed differences between women and men.
- Work status captures an important element of gender equity and has short and long-term implications for economic and social well-being.



# Three Models of Personality in Labour Market

- Utility theory expanded to include the broad personality concept of “identity”.
- Standard human capital theory
- Principal agent theories




# Common Assumptions

- Neutrality of labour market
- Take as a given unequal distribution of economic resources and personality differences by gender (and class / race)
- Power differentials are ignored



# Identity

- Akerlof and Kranton (2000)
- Our identity model begins with social difference. Gender, a universally familiar aspect of identity, illustrates. There are two abstract social categories, “man” and “woman”

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- Categories may also have higher or lower social status. We use the word identity to describe both a person's self-image as well as her assigned categories. ...
  - Gender identity could be formalized as follows. There is a set of categories **C**, “man” and “woman”, where men have higher social status than women. (Akerlof and Kranton, 2000, p. 71).


# Consequences

- If someone with a given identity engages in activity that contradicts his / her identity, then “she would lose her ...identity. This loss in identity entails a reduction in utility of  $I_s$ , where the subscript **s** stands for “self” “and the ‘I’ for identity (p. 727-728).



# Balance of interests

- If women, as an abstract group, act to maintain their identity or to thwart attempts by others who threaten their identity, they simultaneously act to maintain the economic disadvantage under which they suffer relative to the other abstract group, “men”.

- 
- Men gain by balancing their interests
  - Women lose





# Human Capital Theory

- Earnings follow, as usual, from the kind and amount of traits possessed, and the return that each trait receives in the market. We thereby implicitly assume that personality affects behaviour.



# Typical assumption

- Any group differences in personality traits between men and women will translate into gender differences in earnings either directly, through productivity differences or indirectly through occupational segregation (Gerrit Mueller and Erik Plug, 2006).

# Data

## ■ SOEP

- 2001 – 2006
  - Classification of women and men into leadership/management positions versus non-leadership/management positions in the labor market
- 2005: personality traits and attitudes
- 1999 and 2005 locus of control (same scale items but measured on a different scale—z-scores used in analyses)
- Specific years for dependent variables depend on model being estimated
- Pooled, cross sectional data for work status from 2001-2006 for the HLM estimations.
- Models estimated separately for women and for men.
- Sample limited to individuals who were between 28 and 60 years of age in 2001.



# Implications from analysis

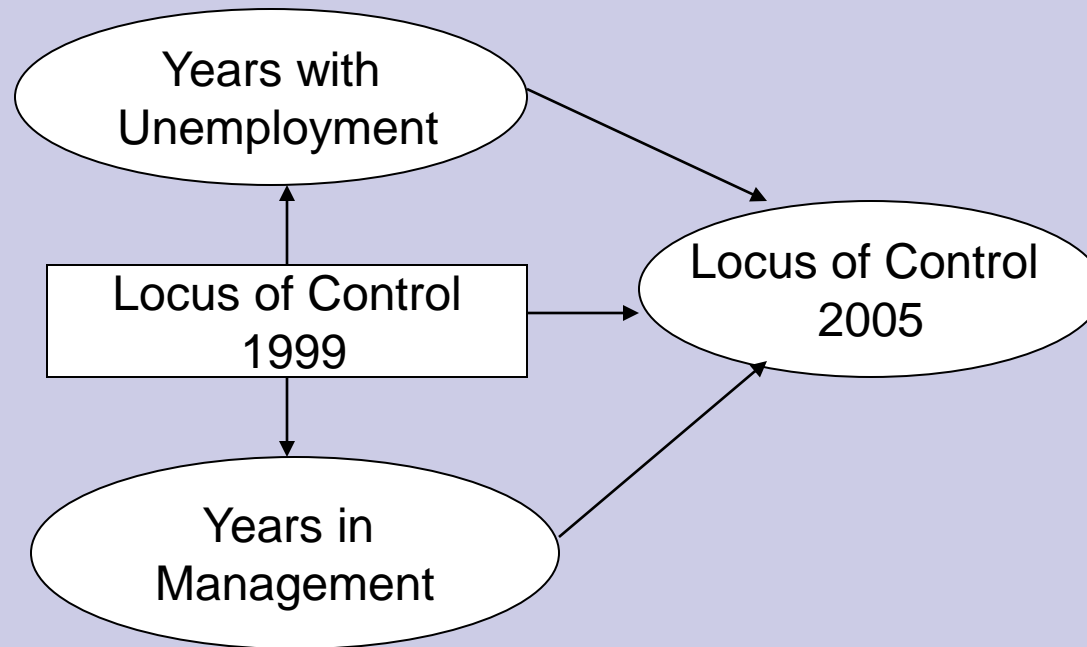
- The primary differences between genders occurred in the processes by which highly positive and negative labour market outcomes were determined versus the processes underlying the development of one particular aspect of personality, locus of control.



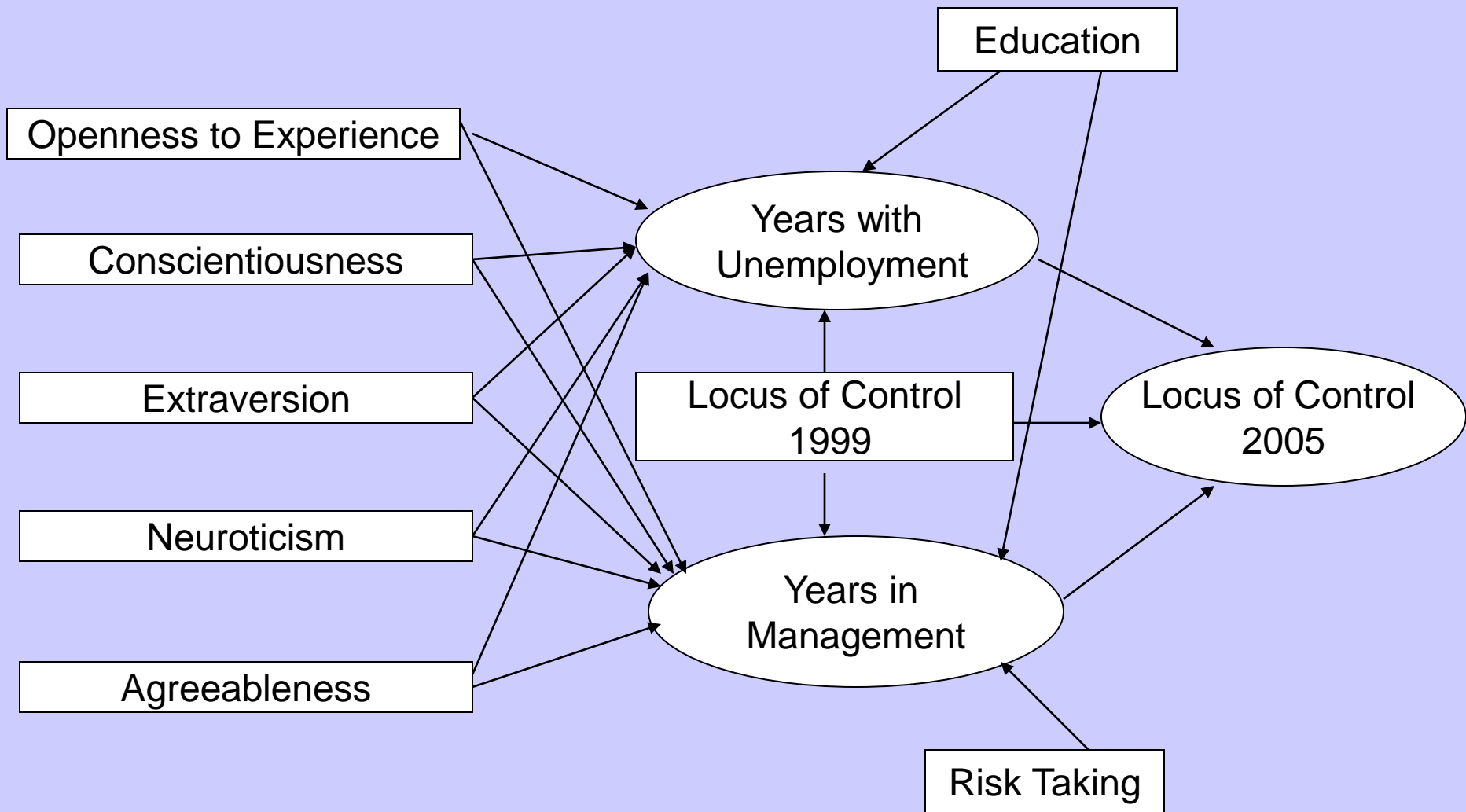
# Overall Conclusion

- A greater degree of gender neutrality exists in terms of how personality, education and demographic variables influence the locus of control and the allocation of individuals to negative labour market states, that is unemployment, than exists in the allocation of individuals to highly positive labour market states.

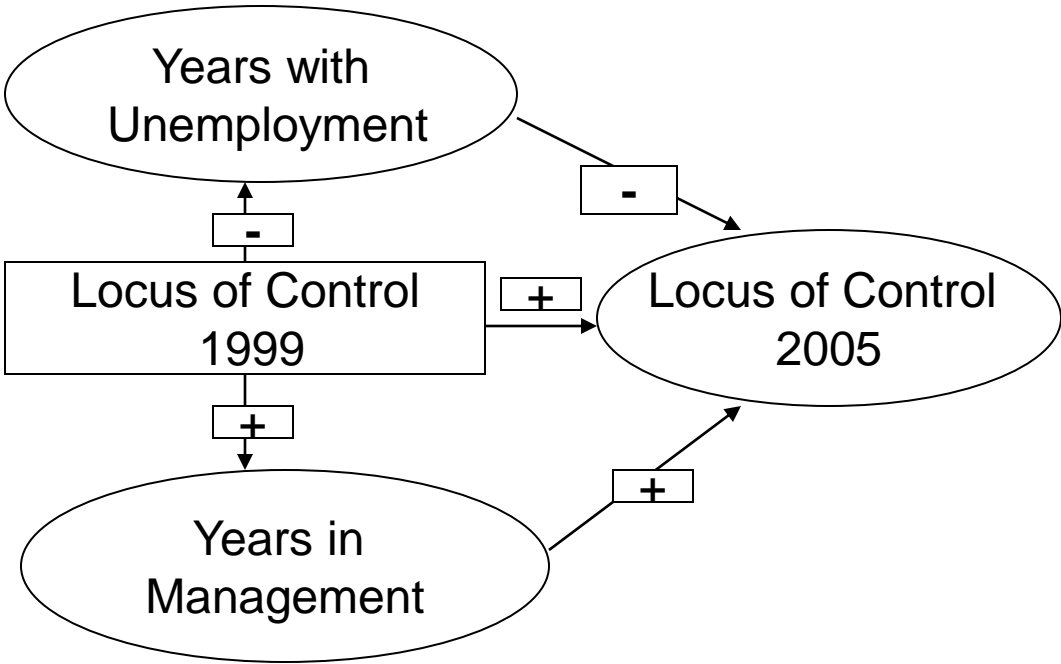
## Structural Equation Model of Locus of Control, 2005



# Simplified Simultaneous Equation Model of Locus of Control, 2005

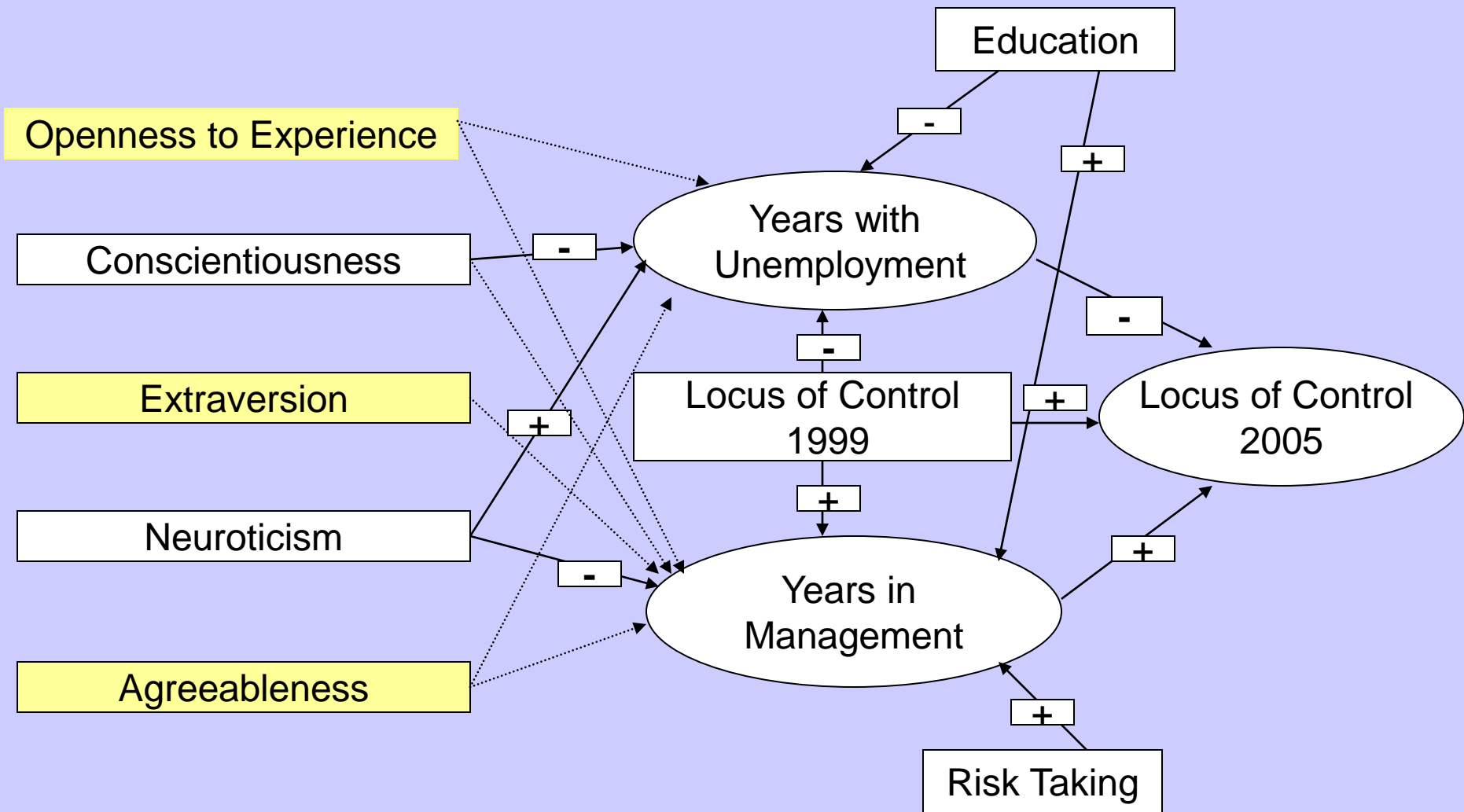


# Statistically Significant Paths--Men

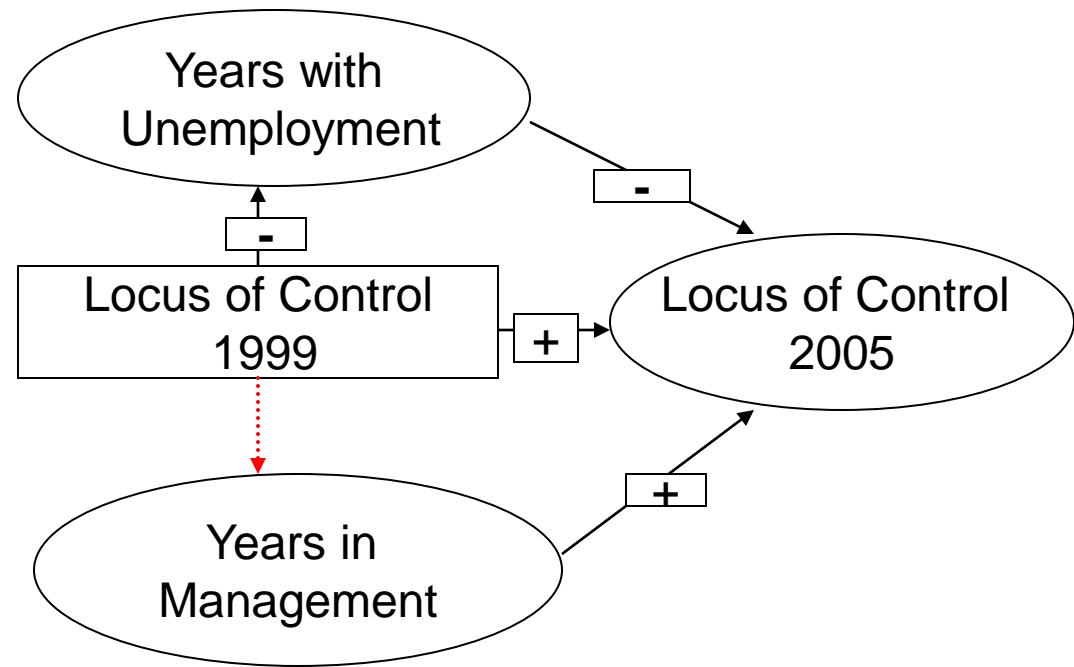




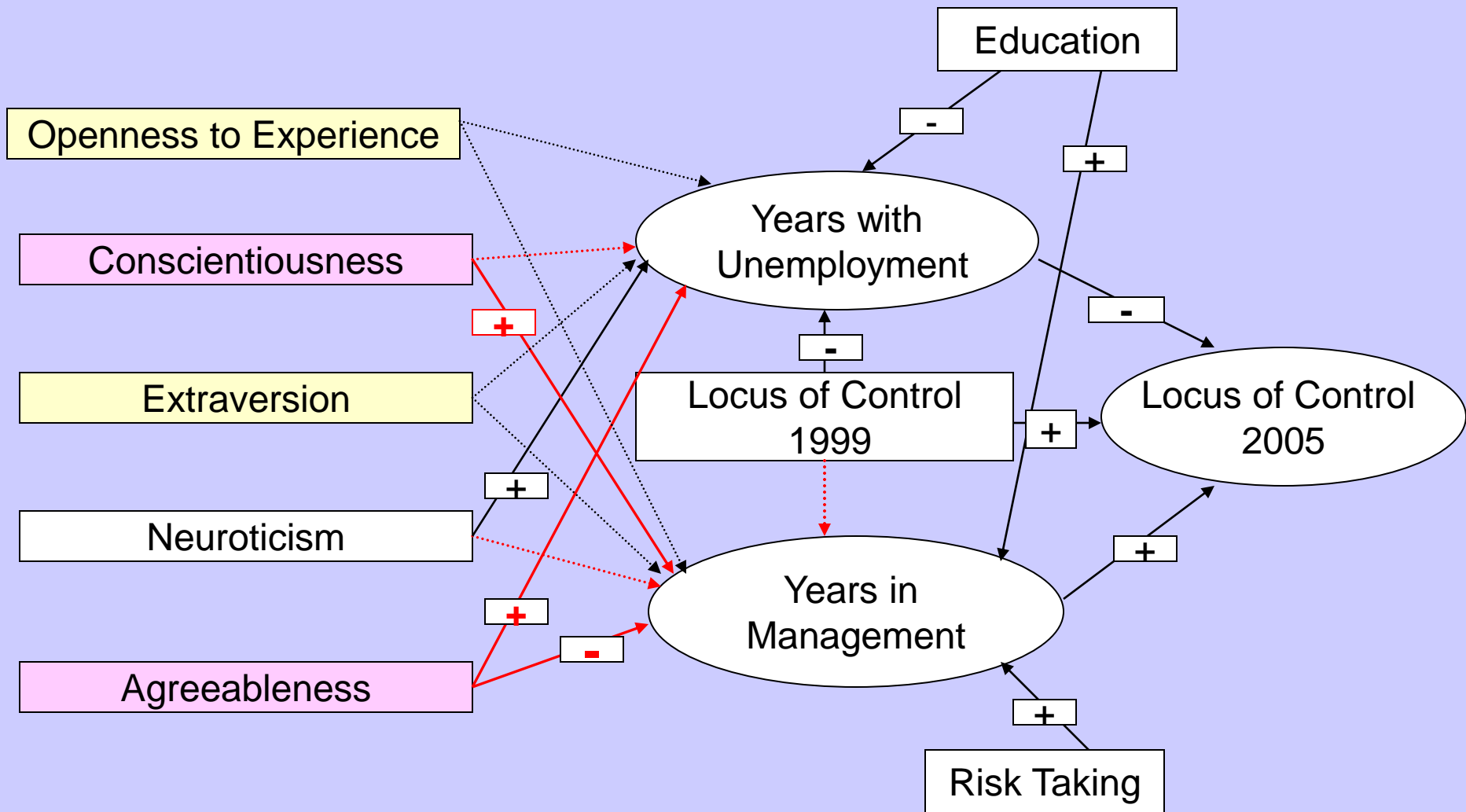
# Statistically Significant Paths--Men



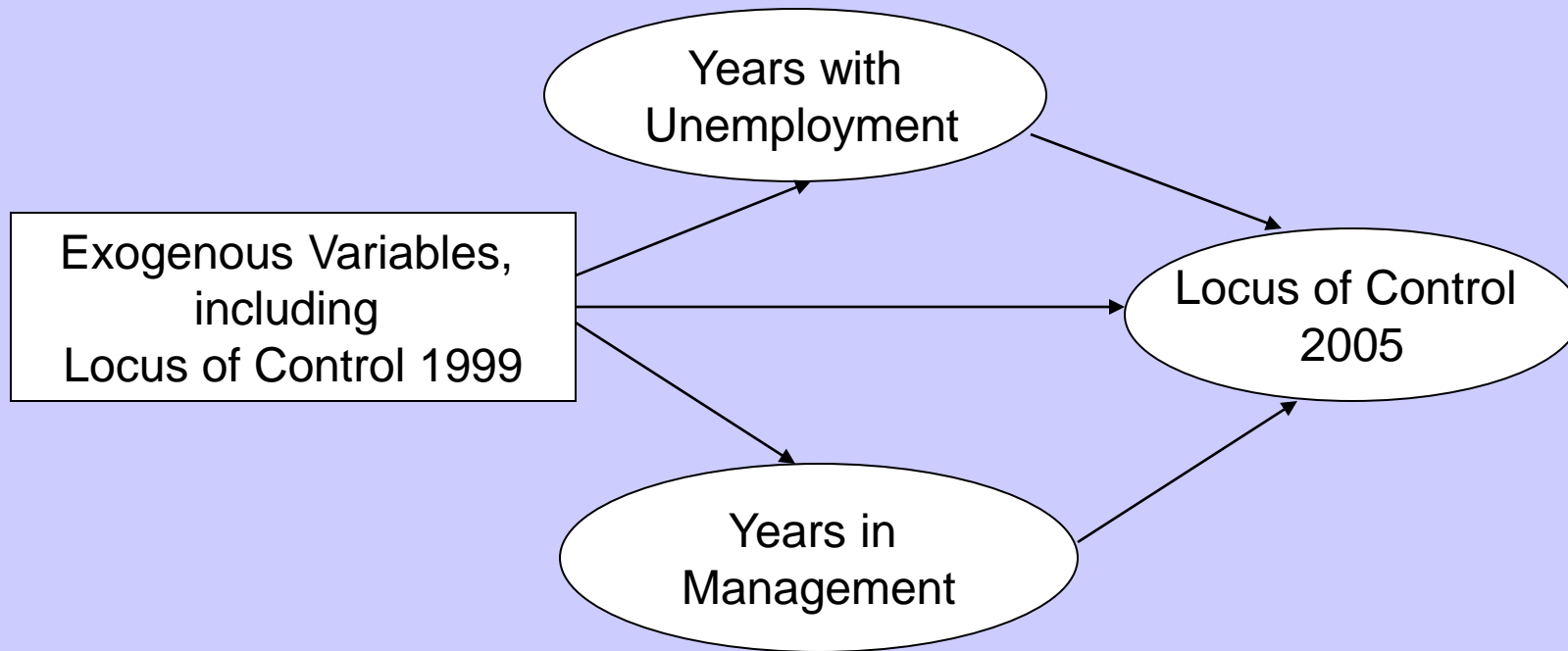
## Statistically Significant Paths—Women Differences with Men in Red



# Statistically Significant Paths—Women Differences with Men in Red



## More Detailed Model Same Endogenous Variables



# Maximum Likelihood Estimation of Three Equation Simultaneous Equation Model: Locus of Control, Years with Unemployment, Years in Management

Variables.	Males			Females		
	Locus of control 2005	Years with unemployment	Years in Management	Locus of control 2005	Years with unemployment	Years in Management
<b>Endogenous Variables</b>						
<i>Years with unemployment</i>	-.097***			-.062***		
<i>Years in management</i>	.037***			.049***		
Locus of control 1999	.395***	-.053**	.089***	.380***	-.063**	.020

# Personality Traits in Three Equation Model

	Men			Women		
	Locus of control 2005	Years with unemployment	Years in Management	Locus of control 2005	Years with unemployment	Years in Management
<b>BIG FIVE</b>						
Openness to Experience	<b>-.014**</b>	.000	.004	<b>-.002</b>	.005	-.002
Conscientiousness	<b>.068***</b>	<b>-.035***</b>	.014	<b>.047***</b>	<b>-.002</b>	<b>.022**</b>
Extraversion	<b>.039***</b>	.006	-.007	<b>.028***</b>	-.002	-.001
Neuroticism	<b>-.057***</b>	.034***		<b>-.056***</b>	.013**	
Agreeableness	<b>.025***</b>	.006	<b>-.011</b>	<b>.035***</b>	.001	<b>-.027***</b>
<b>RISK</b>						
Risk taking in career			.026*			.027***

# Change in Locus of Control, 1999 to 2005, OLS results

	Men		Women	
	Standardized Beta		Standardized Beta	
Locus of Control, 1999	<b>-0.599</b>	<b>***</b>	<b>-0.588</b>	<b>***</b>
Years in Management	<b>0.067</b>	<b>*</b>	<b>0.053</b>	<b>**</b>
Years with Unemployment	<b>-0.080</b>	<b>***</b>	<b>-0.050</b>	<b>**</b>
Years in Market	<b>0.035</b>		<b>0.032</b>	<sup>a</sup>
Openness to Experience	<b>-0.064</b>	<b>***</b>	<b>-0.012</b>	
Conscientiousness	<b>0.180</b>	<b>***</b>	<b>0.120</b>	<b>***</b>
Extraversion	<b>0.107</b>	<b>***</b>	<b>0.087</b>	<b>***</b>
Neuroticism	<b>-0.173</b>	<b>***</b>	<b>-0.185</b>	<b>***</b>
Agreeableness	<b>0.065</b>	<b>***</b>	<b>0.097</b>	<b>***</b>
Willingness to take risks	<b>0.066</b>	<b>***</b>	<b>0.032</b>	<b>*</b>



# Conclusions and Interpretations

- Personality traits are more useful in highlighting how gender functions as a social construct within the labour market than as additional explanatory variables that serve to reduce the unexplained gender differences in labour market outcomes.



# Personality operates differently

Human  
capital  
variables  
function  
similarly for  
women and  
for men

- More education →  
more earnings
- More experiences →  
more earnings
- More personality??????



# Big Five Personality Traits and Locus of Control

- Definitions and meanings are not different by gender
- Why do these traits provide different levels of return for men and women.
- Traits are viewed through the lens of gender; not the lens of productivity



**Thank you for your attention!**