

Correspondence analysis as a tool to perform the embedded actor. An example from mobilities studies

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- Theoretical Background
 - Theoretical Background:
 - Mobilities Paradigm
 - Relational understanding of practices
- Methodological Foundation
 - Methodological Foundation
 - Empirical Analysis
 - Data description
 - Regression analysis
- Empirical Analysis
 - Multiple correspondence analysis
- Conclusion
 - Conclusion

Theoretical Background

Methodologic al Foundation

Empirical Analysis

Conclusion

„[A]ll social relationships should be seen as involving diverse 'connections' that are more or less 'at distance', more or less fast, more or less intense and more or less involving physical movement. Social relations are never only fixed or located in place but are to very varying degrees constituted through 'circulating entities'.“ (Urry 2007: 46)

- Social formations emerge through and are stabilised by mobilities
- Focus on interrelations of different forms of spatial and virtual mobilities, movement

Theoretical Background

- Mobilities as a social practice, embedded in a multiplicity of social, material and spatial contexts

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- Ability to move requires specific resources (competences, money, information ... cf. Kaufmann et al. 2004)

Empirical Analysis

- Mobility actors negotiate their movements within their **social network**
- Negotiations take place within **spatial and geographical situations** (public transportation and traffic infrastructures, geographies of employment and housing opportunities, child care facilities etc.)

Conclusion

- Mobility practices shaped by social structures

- Theoretical Background
 - Antipositivist understanding of science:
 - Methods and methodologies extend and project theoretical axiomes into the empirical world (Kuhn 1962; Diaz-Bone 2010)
- Methodological Foundation
 - Methods as carriers of theoretical assumptions
- Empirical Analysis
 - **Performative view on methods** as element of French Epistemology (Bachelard, Barthes, Canguilhem, Foucault)
- Conclusion
 - STS quote: Social research practices *“enact realities and they can help to bring into being what they also discover”* (Law/Urry 2004: 393)

Empirical analyses of mobility practices should account for

Theoretical
Background

1. *observable patterns of the practices* of interest, e.g. a set of interrelated geographical movements like residential mobility and commuting;

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2. the *relational embedding of movement into social networks*, e.g. households. This entails also to focus on relational effects of mobility, e.g. that movement of one member of the household necessitates immobility of another;

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Analysis

Conclusion

3. the *structuring of movement patterns by geographical spatial situation*, e.g. transportation and traffic infrastructures, employment geographies, etc.

Data and operationalisation

Theoretical Background

- **Data:** Swiss Household Panel 2012 (+ some information from 2004)
- Research interest: job related mobilities: daily **commuting** time and (cross-cantonal) **residential mobility**

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- (heterosexual) **couples** aged 30-65 years as cases; n=1995

- **Variables of social context:**

- Age: male mean age: 50.1 years, female mean age: 47.7 years
- Children in the household (2/3 with children)
- Education
- Household income
- Distribution of work between spouses

Empirical Analysis

- **Variables of spatial context:**

- Urban/rural settlement
- Car available
- House ownership

Conclusion

Descriptives

Theoretical
Background

1. Residential mobility and length of residence

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- 6% (n=115) moved between 2004 and 2012 from one canton into another.

Empirical
Analysis

- Length of residence at the current place:

≤ 5 years	6-12 years	13-18 years	≥ 19 years
33% (323)	28% (281)	13% (125)	26% (262)

Conclusion

2. Commuting Mobility

Average daily commuting time in minutes

Theoretical
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Empirical
Analysis

Conclusion

	Women	Men
2012	44	51
2004	40	48
2012 with children	41	52
2012 without children	51	49

OLS Regression Analysis

	Commuting Time Woman (R ² =0.124, p<0.01)			Commuting Time Man (R ² =0.064; p<0.01)			
	Estimate	Std. Error	t	Estimate	Std. Error	t	
Theoretical Background							
	Intercept	29.43*	12.89	2.28	28.78*	13.40	2.15
	own education	9.95***	1.98	5.03	8.34***	2.29	3.64
Methodological Foundation							
	own age	-0.63*	0.28	-2.22	-0.12	0.28	-0.42
	children (no children)	5.69*	2.79	2.04	-8.05**	2.89	-2.78
	Partner's comtime	-0.01	0.03	-0.42	-0.01	0.03	-0.42
Empirical Analysis							
	Partner's edu	0.65	2.22	0.29	5.15*	2.08	2.48
	Partner's age	0.05	0.27	0.18	-0.10	0.30	-0.34
Conclusion							
	household income	8.66***	1.54	5.62	4.11*	1.62	2.54
	car available	-13.81**	5.27	-2.62	1.26	5.50	0.23
	house (tenant)	4.73	2.72	1.74	-3.20	2.83	-1.13
	urban	2.03	1.50	1.36	-0.04	1.56	-0.02
	move (no move)	-6.28	4.84	-1.30	-12.52*	5.02	-2.50

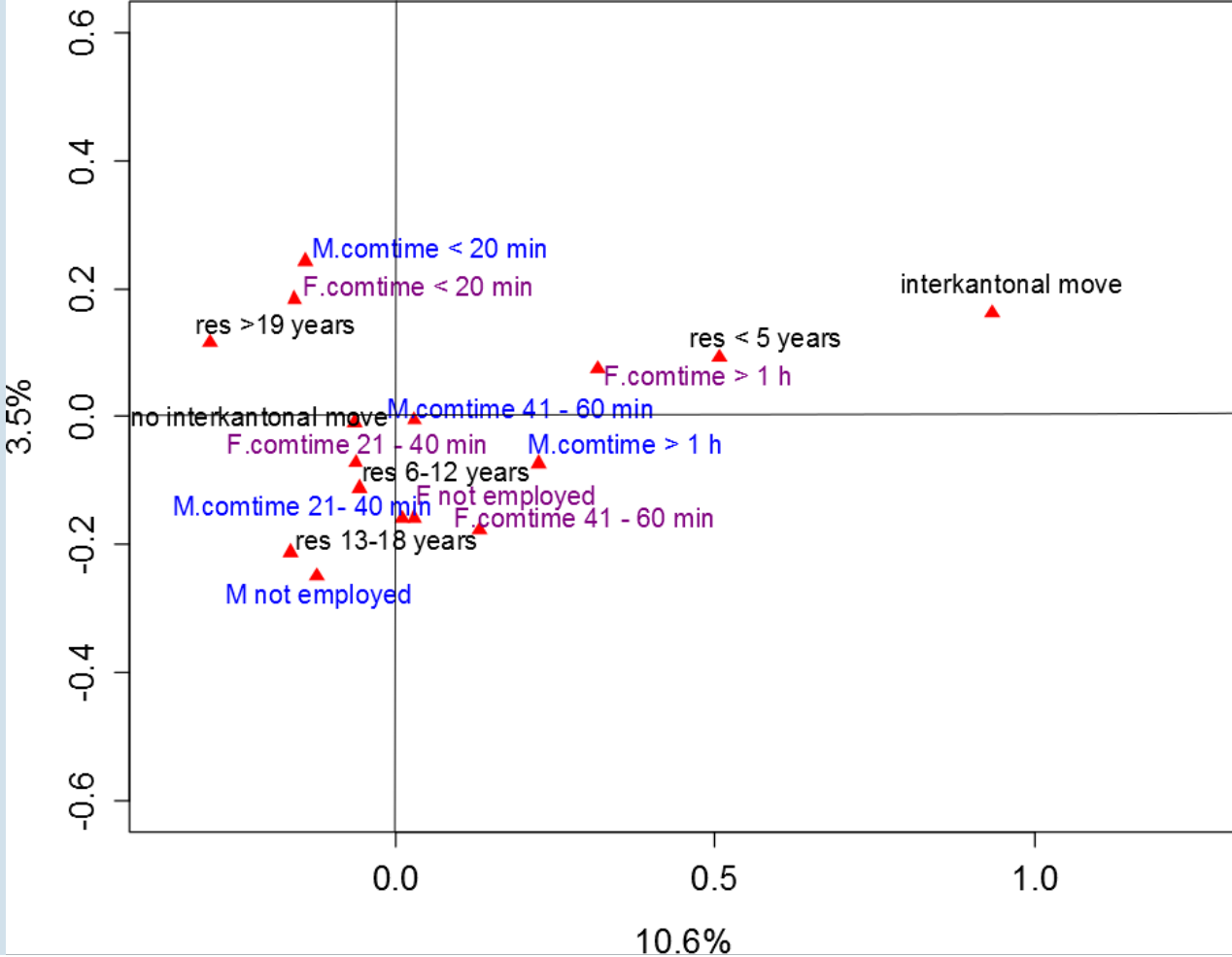
Space of mobility practices

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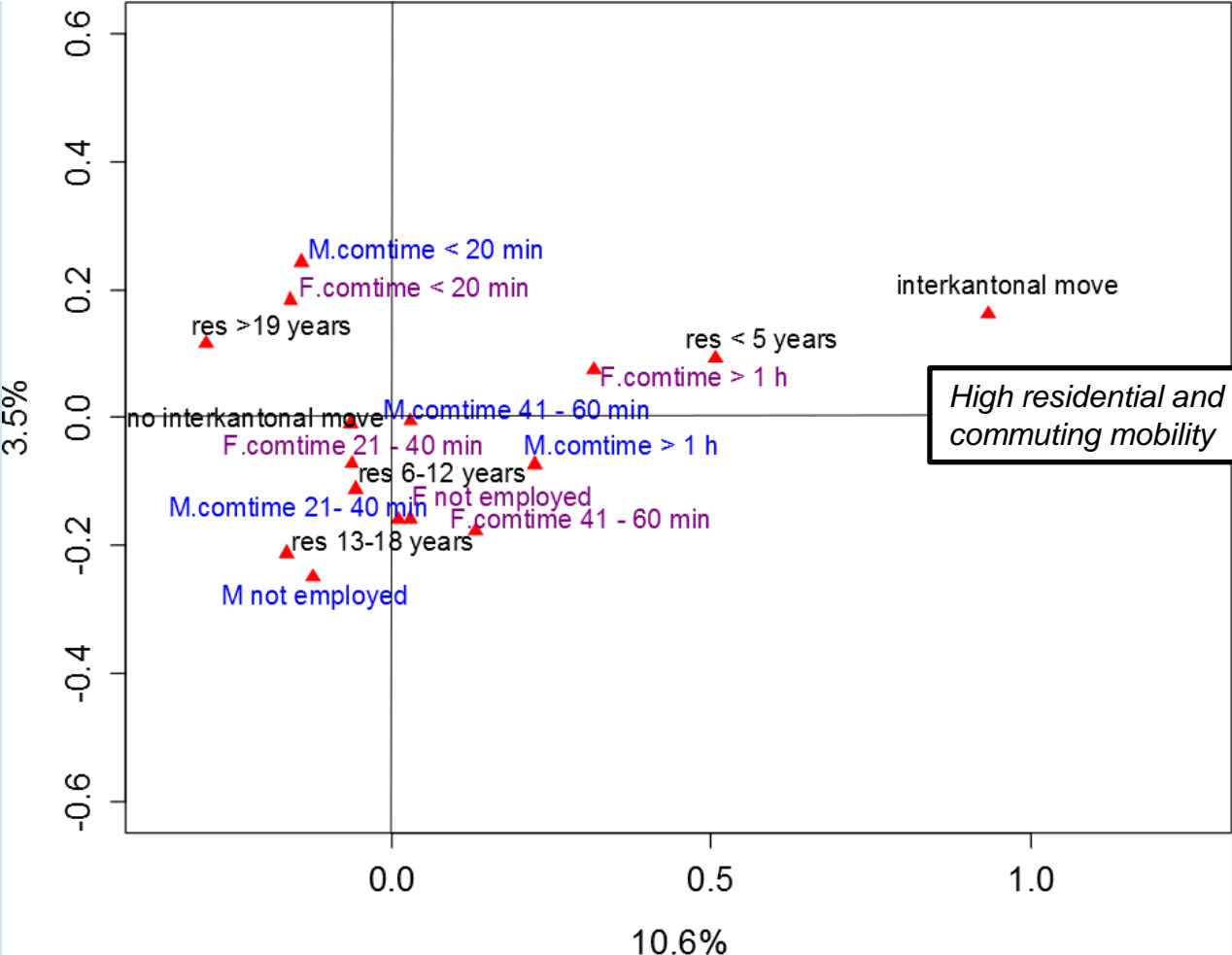
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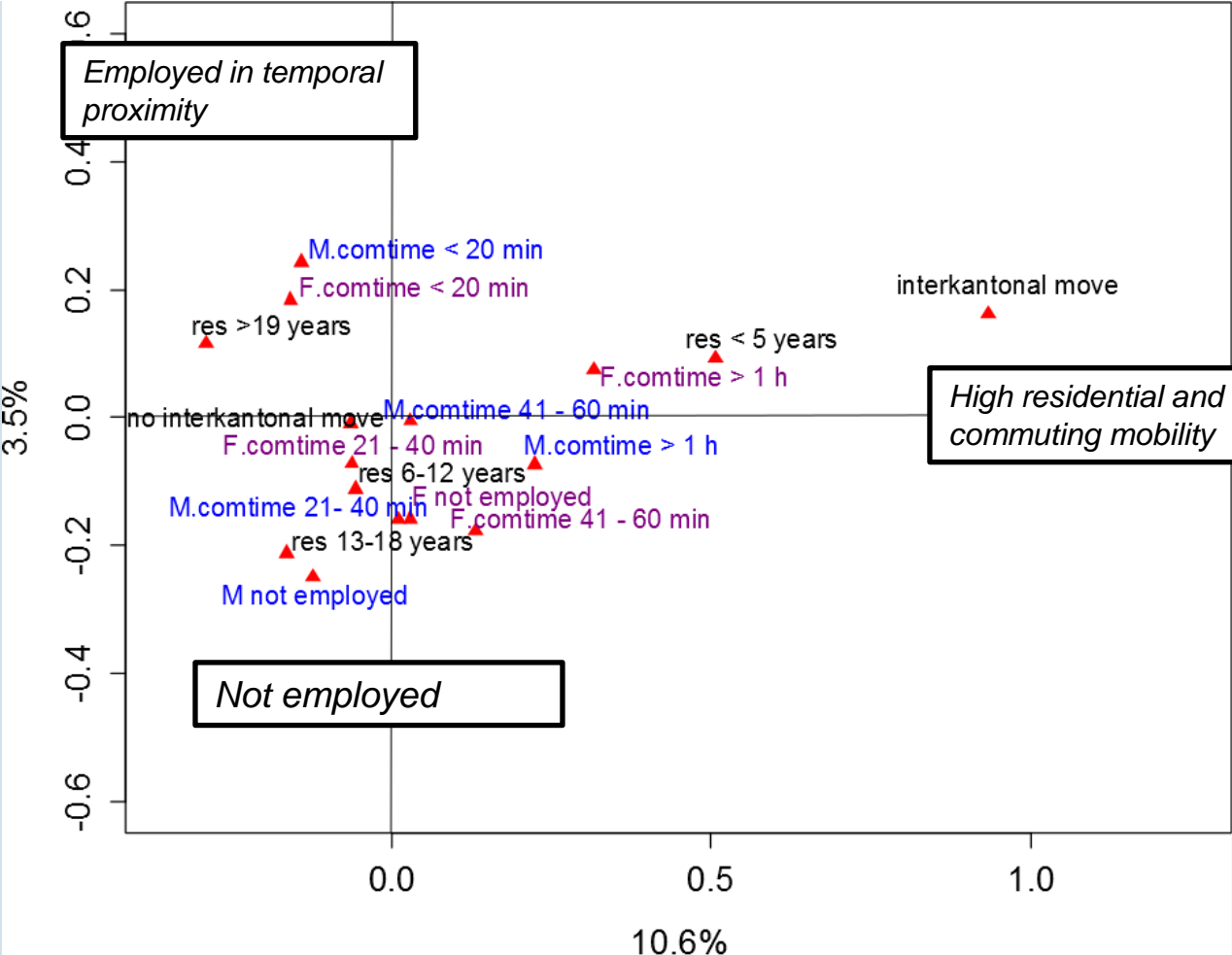
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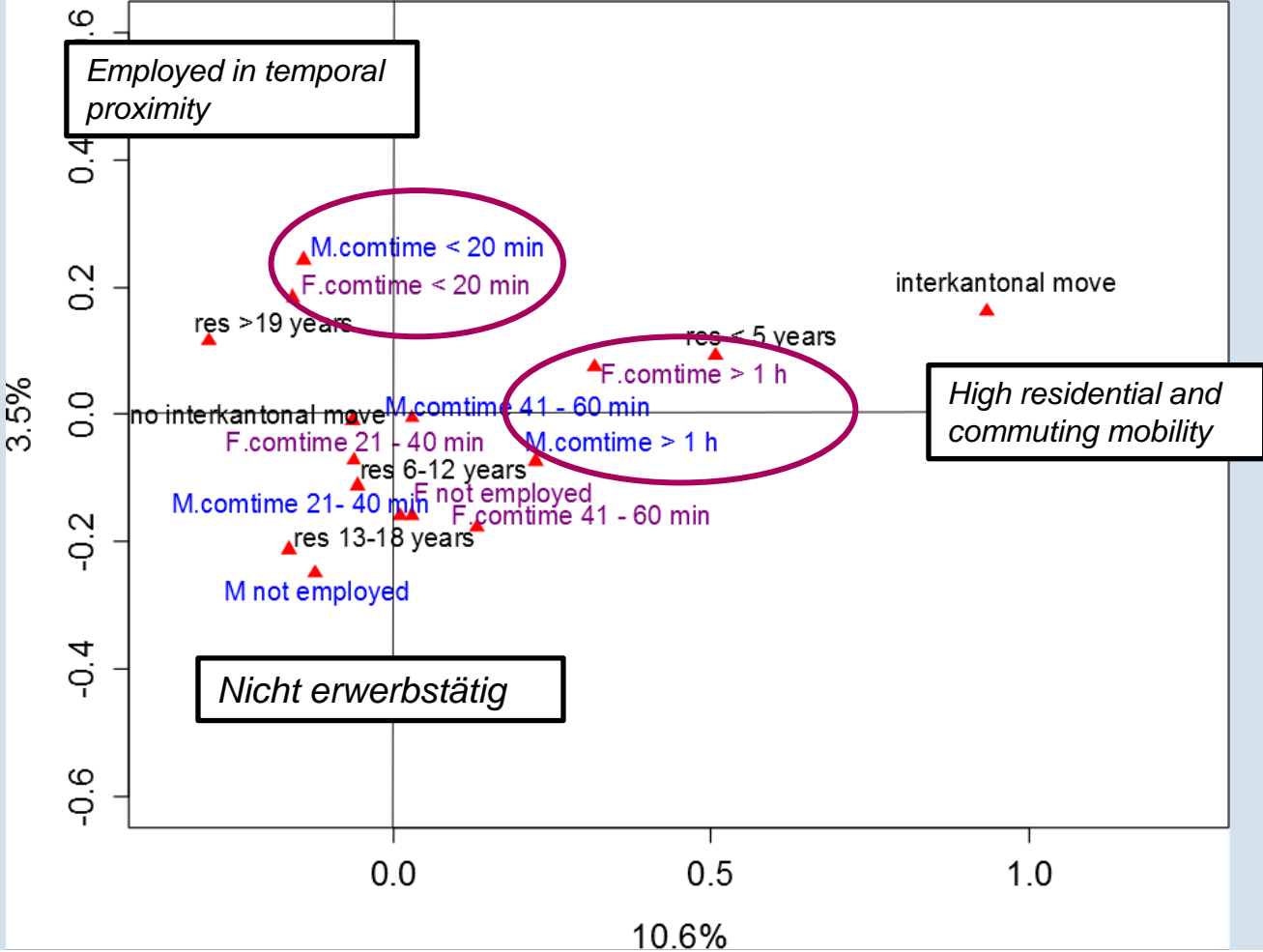
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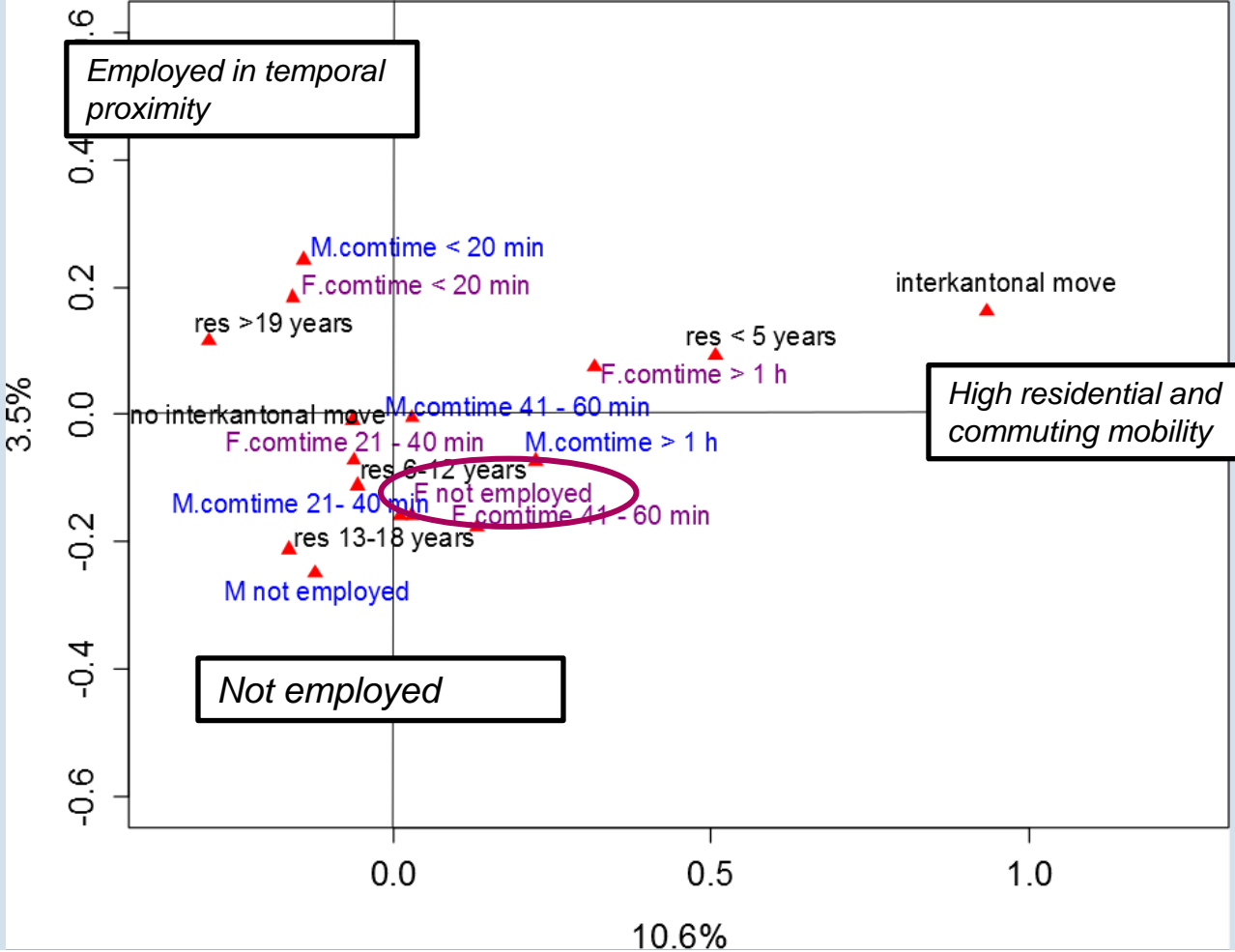
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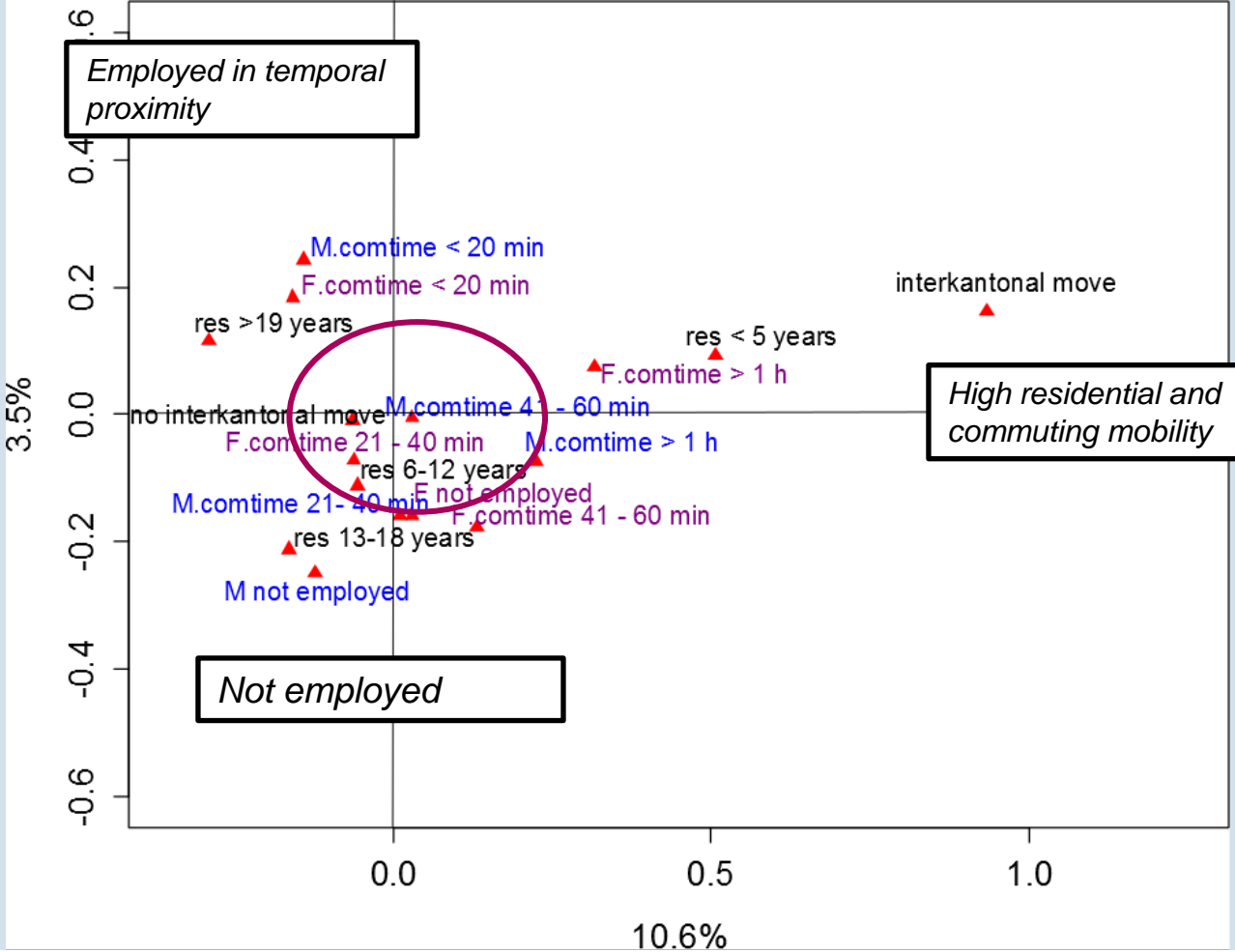
Space of mobility practices

Theoretical
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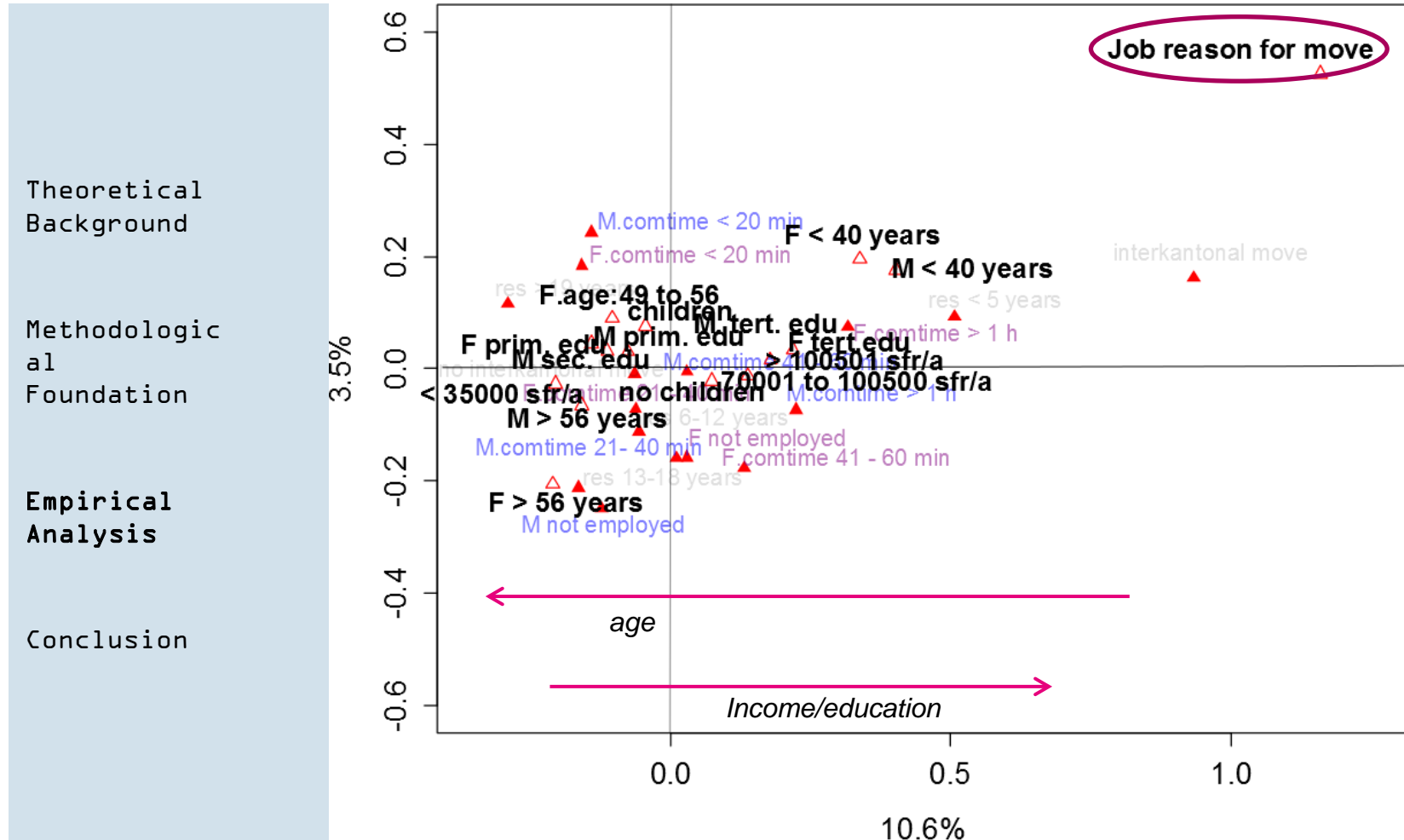
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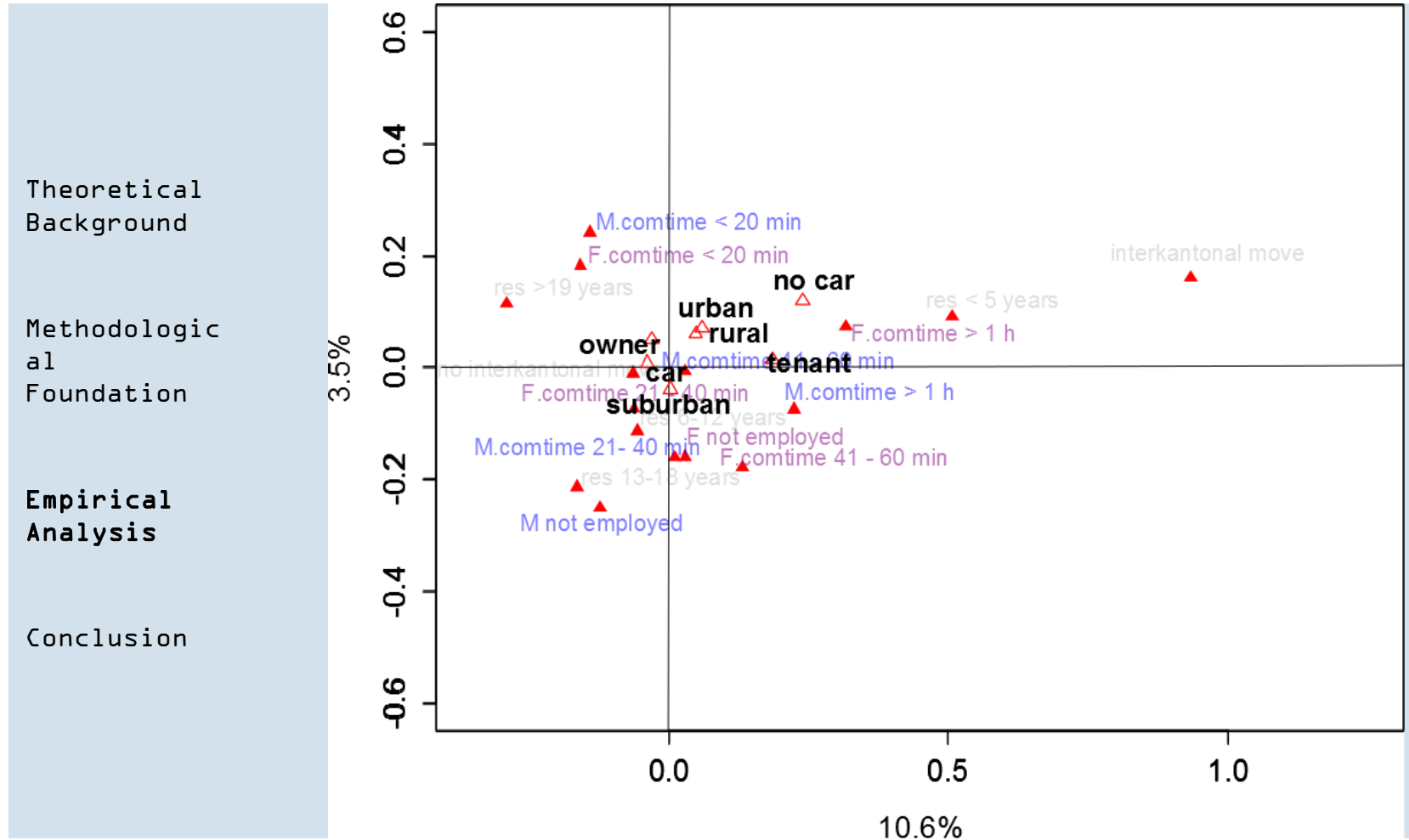
Conclusion



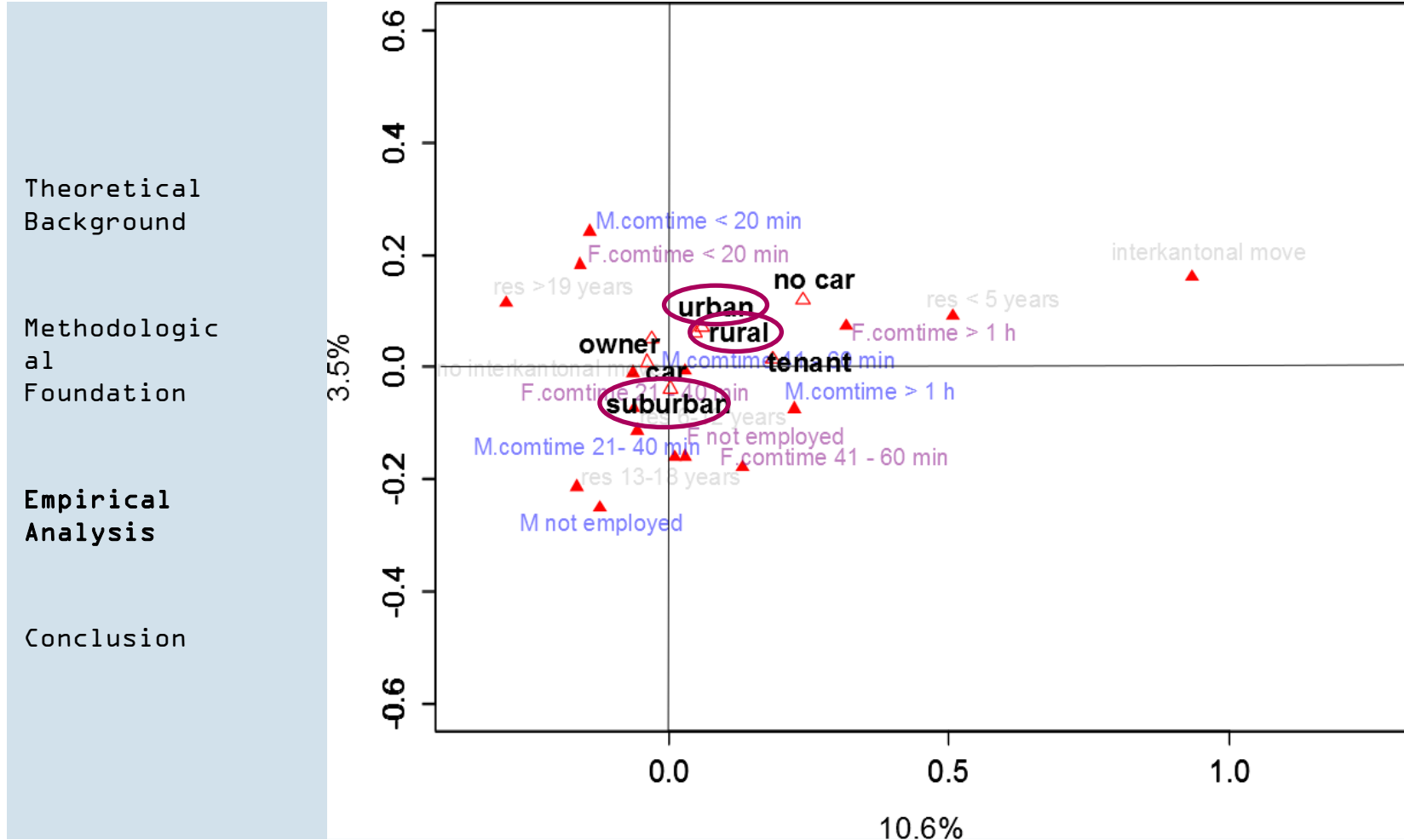
Socio-economic context



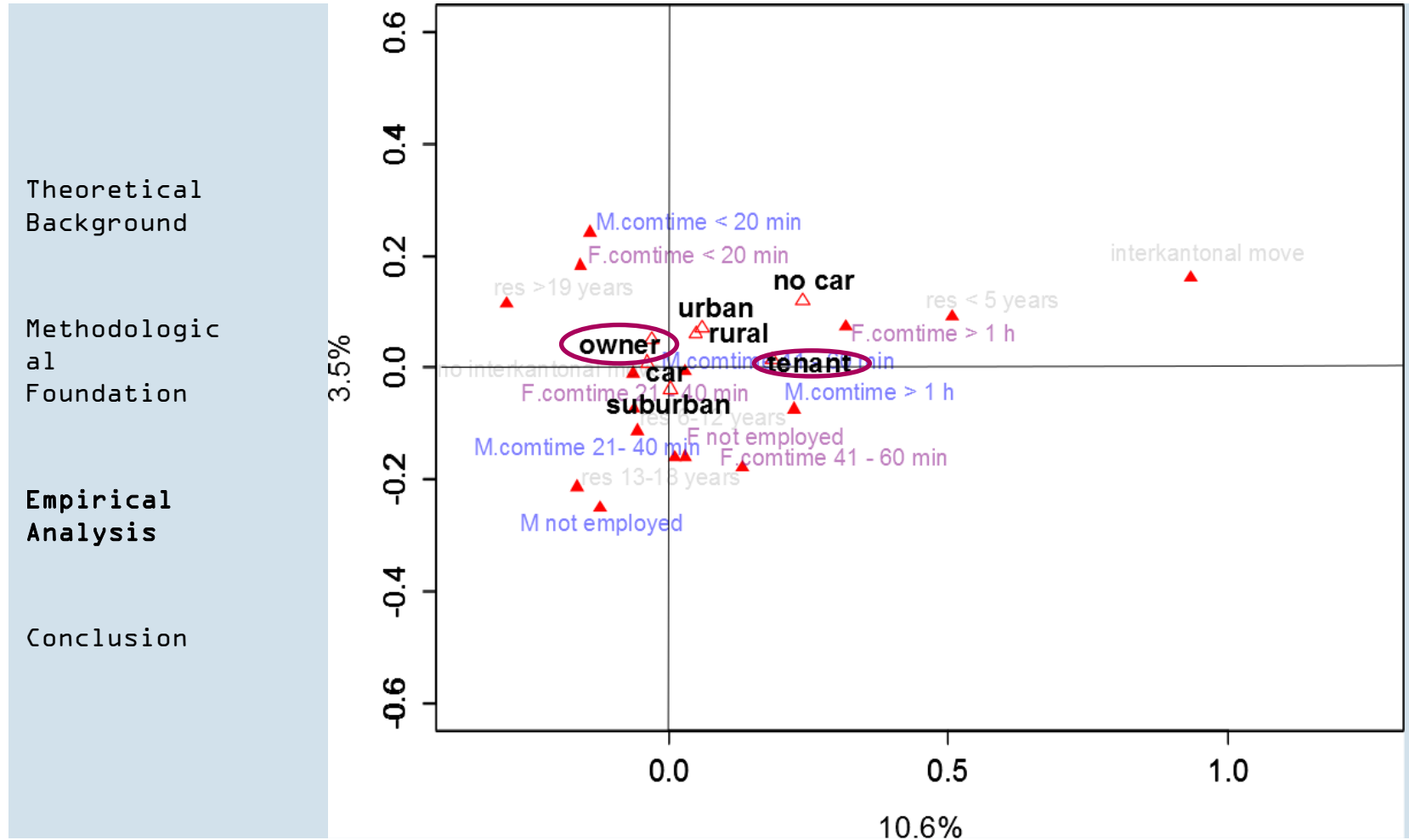
Spatial context



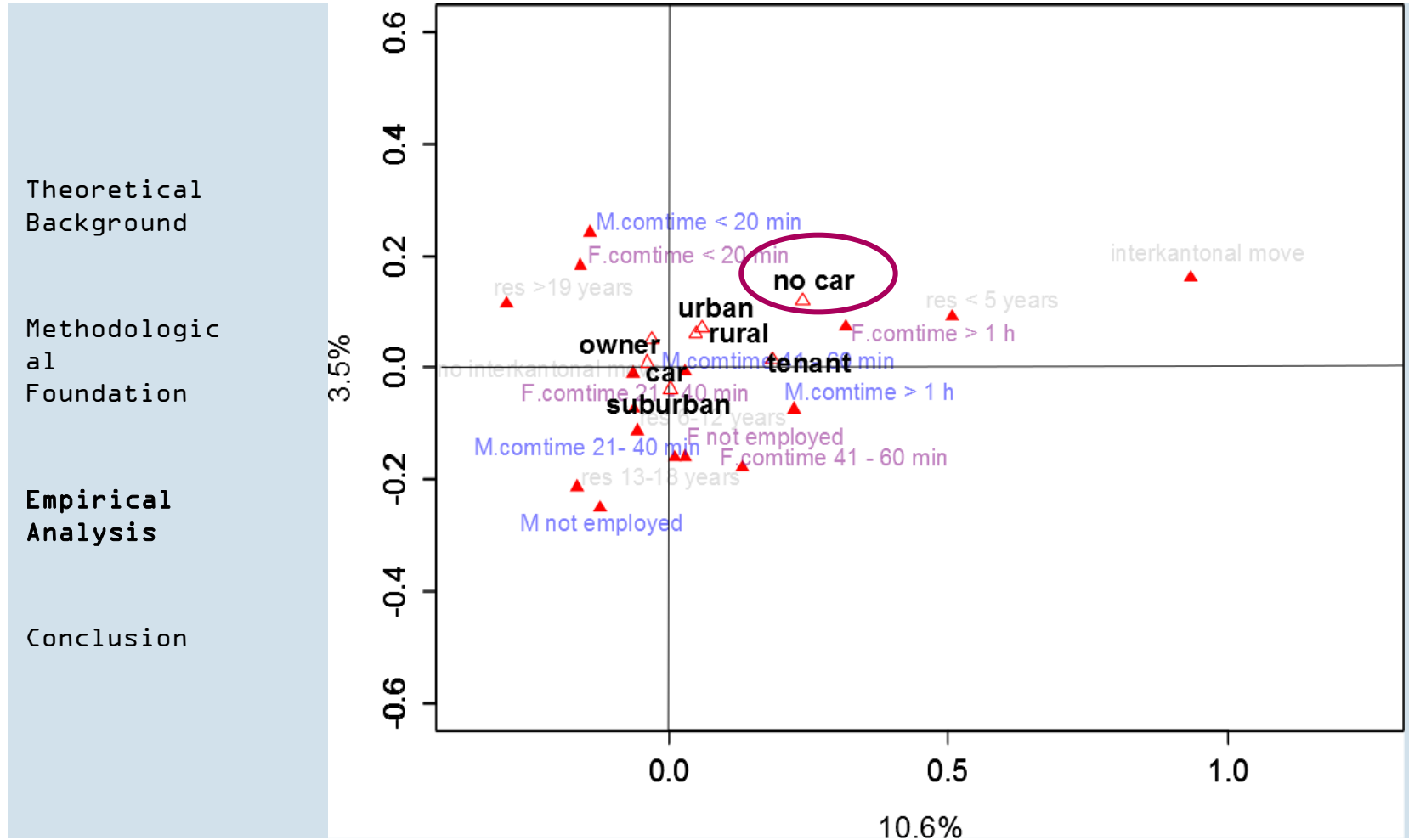
Spatial context



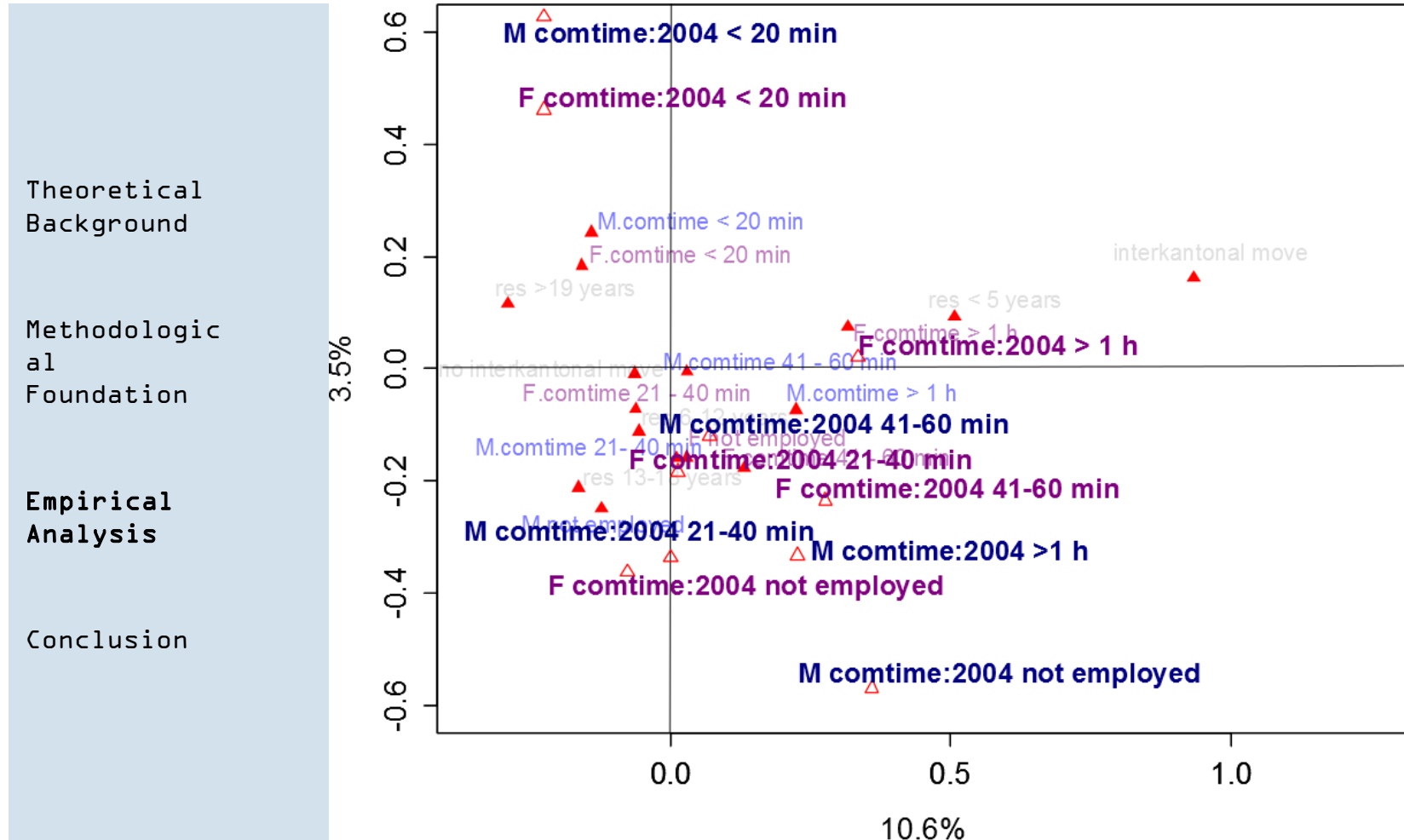
Spatial context



Spatial context



Continuity of Movement: Commuting 2004



Regression model reduces social and spatial context to properties of the individual

Theoretical
Background

→ movement understood as outcome of rational choice made by individual subjects against the background of individual preferences and available resources

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MCA first constructs the geometric pattern of practices and then searches for interpretation of the dimensions

Empirical
Analysis

Conclusion

→ international comparison highlights structuring impact of social and spatial settings

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