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► **To cite this version:**

Kenza El Qaoumi, Pascal Le Masson, Benoit Weil. Testing Evolutionary Theory of Household Consumption Behavior in the case of Novelty. 15th ISS Conference, Jul 2014, Jena, Germany. hal-01082519

**HAL Id: hal-01082519**

**<https://hal.science/hal-01082519>**

Submitted on 13 Nov 2014

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# Testing Evolutionary Theory of Household Consumption Behavior in the case of Novelty

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## 1 Evolutionary theory applied to consumer behavior

Neoclassical theory	Evolutionary theory
- Ignores <b>Novelty</b> and uncertainties	- Considers <b>Novelty</b> and Uncertainties
- Household have well defined preferences	- Consumer behavior is in continuous change
	- Changes involve learning

**!** *Evolutionary theory* follow the Lancasterian point of view concerning **Novelty**. However, *Evolutionary approach* might be compatible with novelty processes, i.e. with the emergence of new Lancasterian characteristics.

**!** The emergence of new goods characteristics implies and requires **learning**

## 2 Hypothesis:

**H1: Novelty: the set of goods characteristics evolve over time, contrary to Lancasterian approach**

**H2: Learning involves interdependence between New good characteristics**

## 3 Research methodology Model

Good (G) = Set {C1; C2; ...Cn}  
 f(t) : G → Temporal Continuity  
 Gt/G't → Comparison inter product

Good (G) = Set {C1; C2; ...Cn}  
 "G" → Sample of product  
 "C" → consumer preferences

## 4 Data Collection from:

Consumer Guides : Reports & Tests 1960-2013

Interviews	Nbr of consumer Guides viewed	Data Source	Consumer Products	Period of time
4 Meetings with consumer guides Experts: 1. Validate and reinforce the quality of our tool. 2. Crosscoding and validate the newness of characteristics	1960 – 2013 → 12*(nbr of years) → 636 Consumer Guides journals	« Que Choisir? »	Iron	1962 - 2013
		« Que Choisir? »	Vacuum Cleaner	1969 - 2013
		« Que Choisir? »	Toothbrush	1975 - 2013
		« Que Choisir? »	Mobile Phone	1996 - 2013
		« Que Choisir? »	GPS	2007 - 2013

## 5 Results:

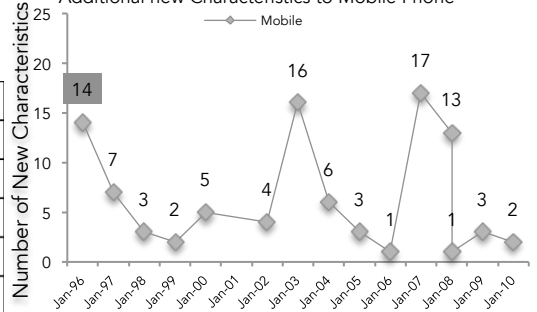
**A. Novelty: Characteristics space of goods is permanently in evolution**

**✓** In all five cases, the characteristics space of the different goods is permanently in evolution, by the addition of **new characteristics** over time.

	Period of time	Nbr of years	Nbr of consumer guide surveys	Total nbr of new characteristics	New characteristics per Year
Mobile Phone	1996 - 2013	17	16	97	6
Iron	1962 - 2013	51	21	78	2
Vacuum cleaner	1969 - 2013	44	25	75	2
Toothbrush	1975 - 2013	38	6	26	1
GPS	2007 - 2013	6	8	20	3

### Example Mobile Phone

Additional new Characteristics to Mobile Phone



**B. Learning: Continuous learning, new characteristics are not independent**

- Identification of waterfall process between new characteristics that highlight the learning effect

## 6 Discussion:

- Review the Lancasterian Approach of Novelty.
- Extension of characteristics space of different goods → Mobile phone (young dynamic) but also Iron (Old product)
- The gap between evolutionary consumption theory, the emergence of new Lancasterian characteristics.