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If I Ruled the World: The Role of Personal Values in Blockchain Adoption Decisions

A Conjoint Analysis of Potential Users' Preference on Blockchain Technology

Constantin Lichti | Johannes Gutenberg University Mainz | 10/29/2020

Public Blockchain Technology (BT) as a Context for Investigating Personal Values in IT Adoption

*"It's [i.e., the Bitcoin blockchain] very attractive to the **libertarian** viewpoint if we can explain it properly"* – Nakamoto (2008).

*"[…] Blockchain is a revolutionary paradigm for the human world, the "**Internet of Individuals**" [...]"* – Swan (2015).

*"[…] I hope to show how the currency [i.e., Bitcoin] is viewed as much as an **ideological instrument** as it is a practical mode of exchange."* – Karlstrøm (2014).

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The Role of Personal Values for the Adoption of Information Technology Is Unclear

• Technologies are not „value-free" (Friedman et al., 2017; Mougouei et al., 2018)

• Values explain users' attitudes but are non-specific in how they relate to a target behavior such as usage intention (Mehta et al., 2019)

→ Why public BT as context technology?

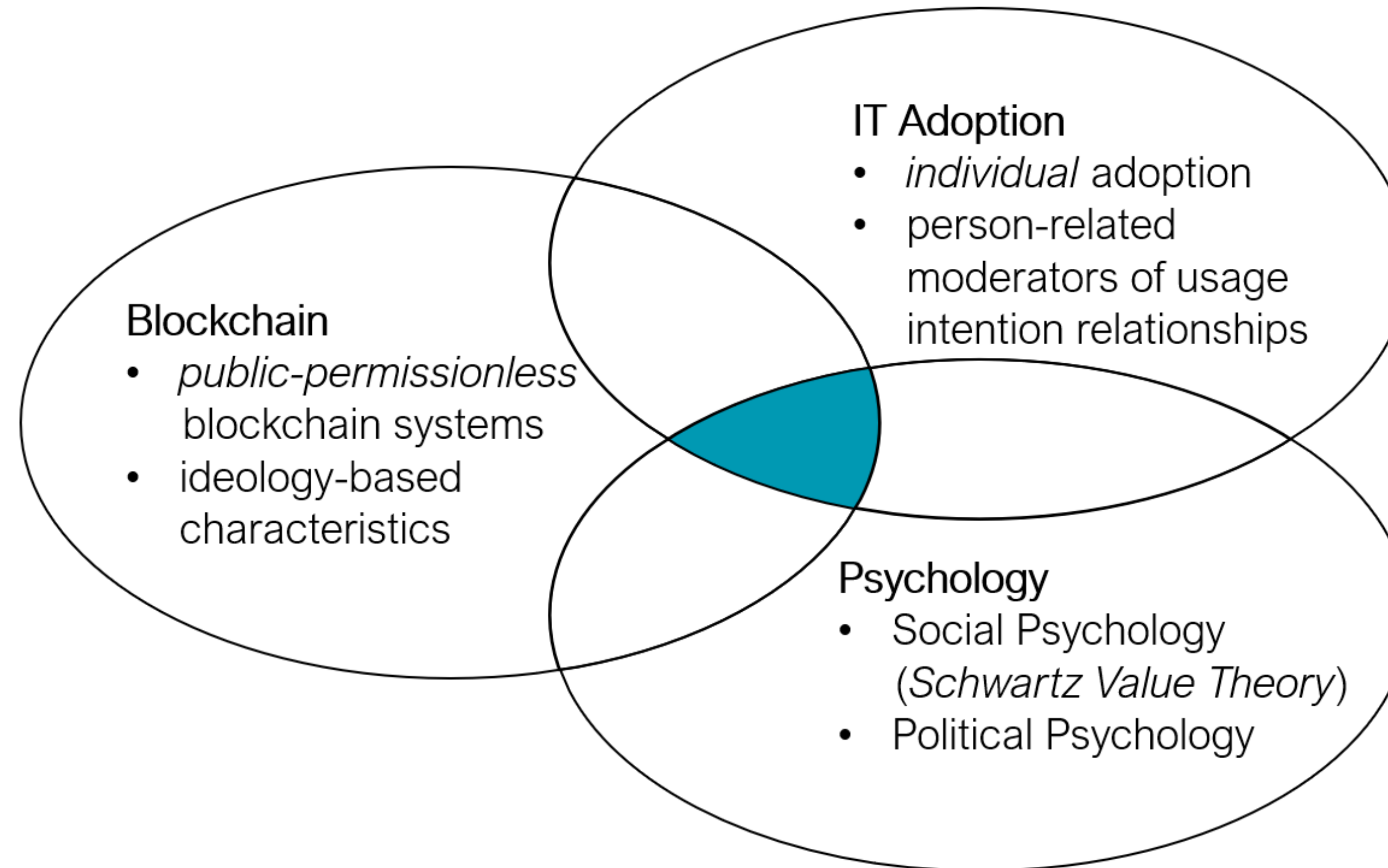   → BT as an *ideological* instrument (Karlstrøm, 2014; Walch, 2019)

   → empirical evidence that *libertarian* attitudes strongly predict the willingness to use Bitcoin (Bashir, 2016)

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Research Questions

1. How do potential blockchain users judge the **importance of each attribute of blockchain technology** with regard to their usage intention?

2. How do potential users' **personal values moderate the importance** of blockchain attributes for blockchain usage intention judgments?

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Research Streams

Blockchain
- *public-permissionless* blockchain systems
- ideology-based characteristics

IT Adoption
- *individual* adoption
- person-related moderators of usage intention relationships

Psychology
- Social Psychology (*Schwartz Value Theory*)
- Political Psychology

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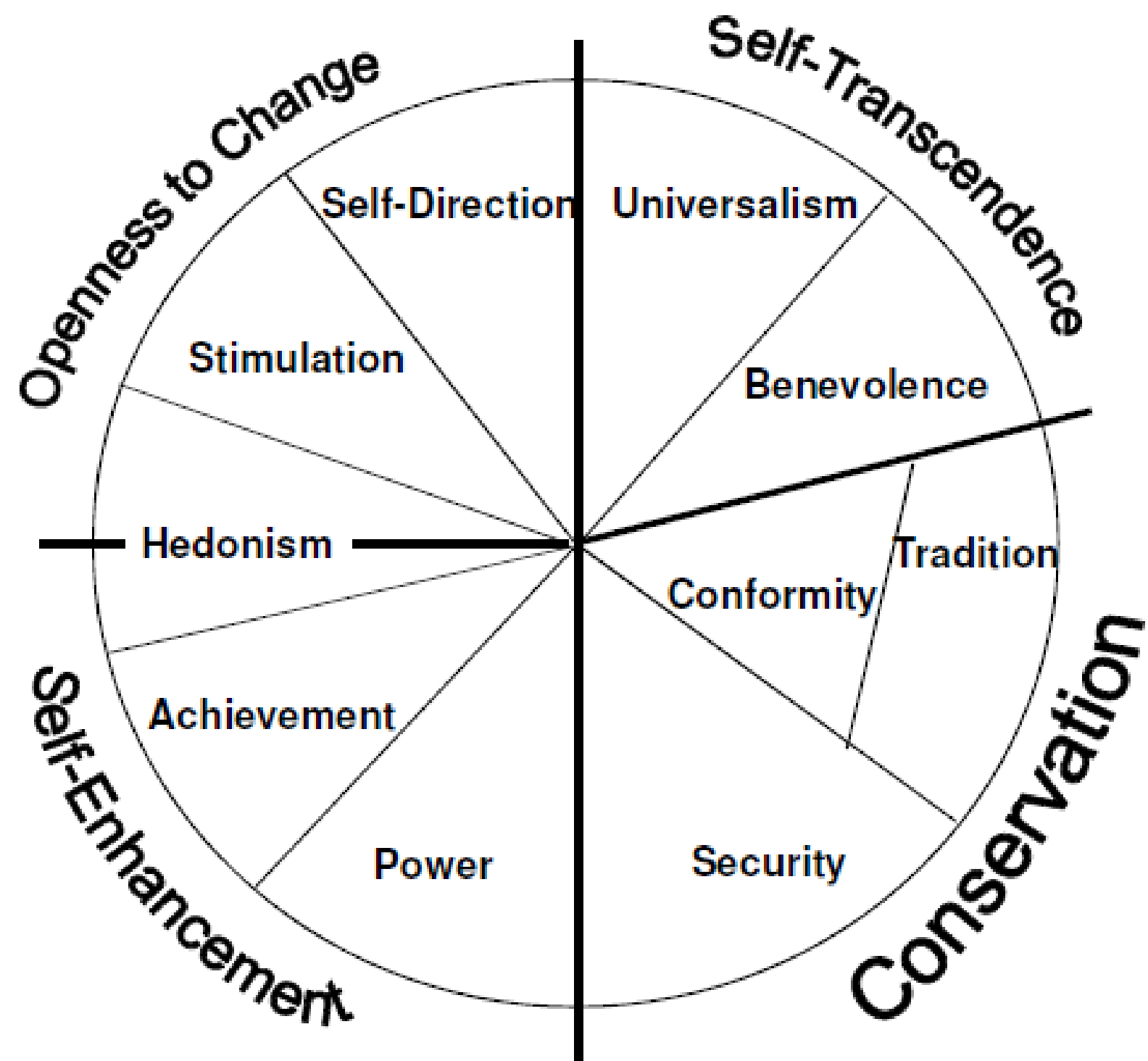
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Schwartz Value Theory

Fig. 1   Theoretical model of relations among ten motivational types of value (Schwartz, 2012)
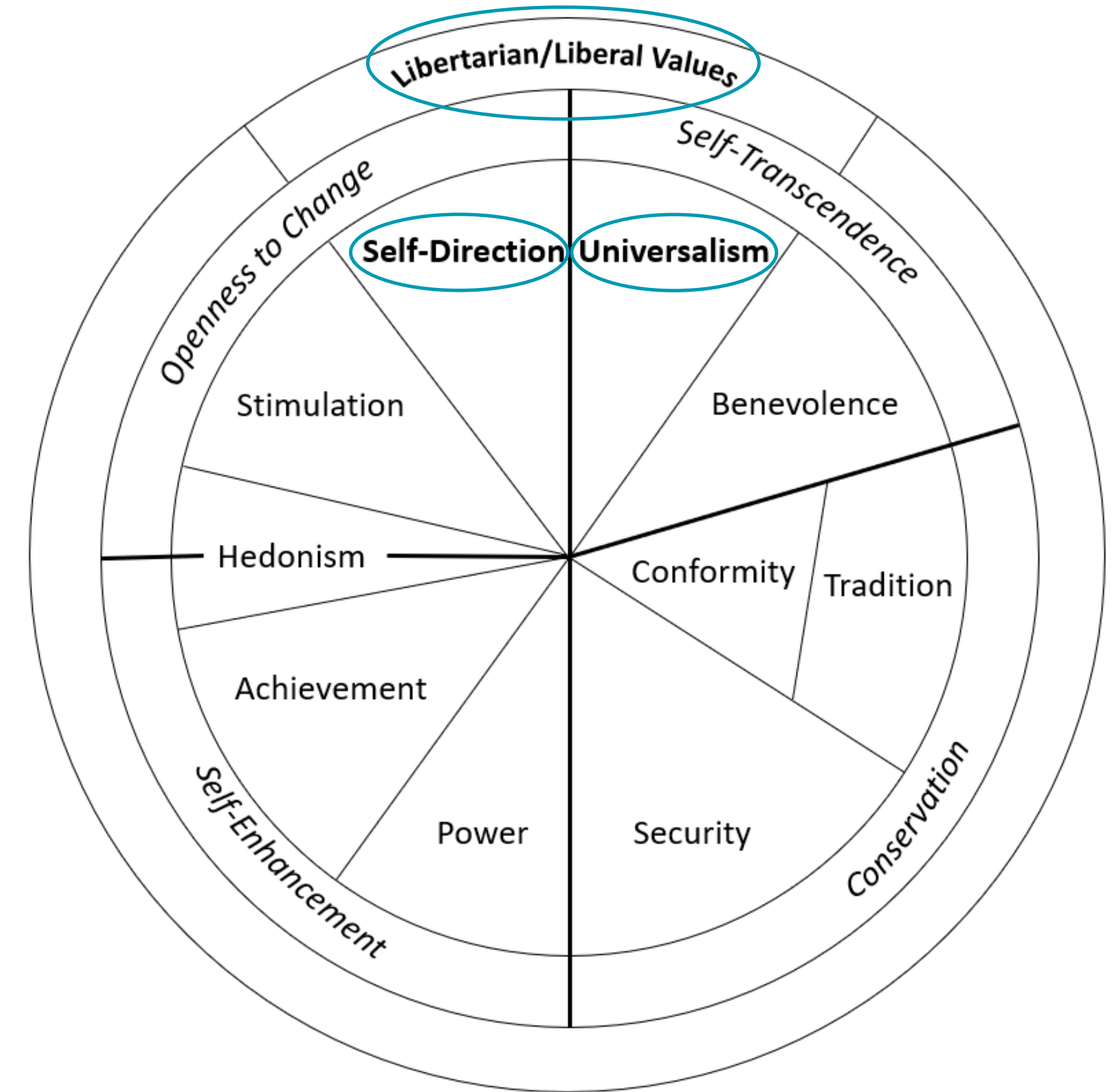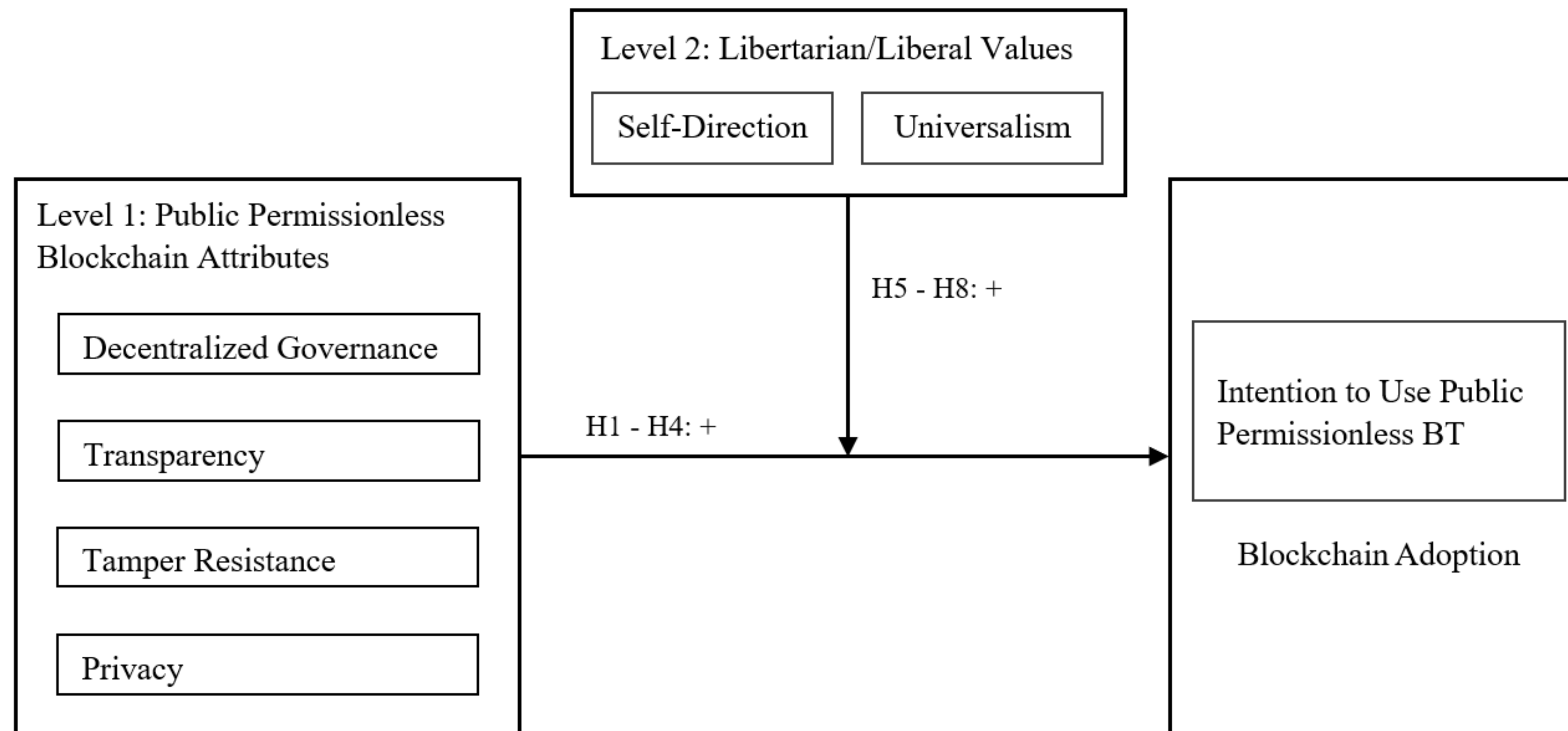

Fig. 2   Own figure reflecting libertarian/liberal values based on SVT
(Barnea & Schwartz, 1998; Bore et al., 2005; Dunn et al., 2017; Feldman, 2003; Iyer et al., 2012; Schwartz, 2012)

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Conjoint Research Model

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Sample & Variables

- Target group: German-speaking blockchain community

- DV = Intention to Use ("How likely is it that you would use this blockchain for asset transactions?"; based on Venkatesh et al., 2003, 2012).

- Libertarian/Liberal Values (Self-Direction, Universalism) measured by Schwartz' PVQ-21 (Cieciuch & Davidov, 2012)

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Sample & Variables

- Control variables:

  - Blockchain experience

  - Core political values (Schwartz et al., 2010)

  - Innovative Behaviour (Schweitzer et al., 2014)

  - Financial Risk-Taking Behavior (Weber et al., 2002)

  - Big 5 personality (measured by TIPI)

  - Sociodemographic: age, gender, education

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Blockchain Survey Structure

1. **Blockchain attributes and profiles**

   First, after some introductory questions, we show the participant **4 attributes** of a public blockchain and **16 decision profiles**, which contain different expressions (i.e., high or low) of these attributes.

2. **Preference rating**

   Second, the participant evaluates each profile on a response scale.

3. **Political and general questions**

   Third and finally, we ask the participants about political attitudes, and some general values, and beliefs.

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Summary & Next Steps

- We use BT as a context to investigate the role of values for IT adoption

- Major and concurrently ideology-based characteristics of public BT guide our research on user attraction

- Currently, we are writing to participants and are in the process of sending out the questionnaire individually, first analyses in November

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THANK YOU VERY MUCH FOR YOUR ATTENTION!

If you have any questions or want to give feedback, please don't hesitate to contact me!

✉ colichti@uni-mainz.de

🖱 LinkedIn: https://www.linkedin.com/in/constantin-lichti-5644b9109

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