

# An Ethnographic Understanding of Software (In)Security and a Co-Creation Model to Improve Secure Software Development

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# Are Developers to Blame?

“Rather than blaming developers, our analysis shows that the problem extends up in company hierarchies.”

*Security in the software development life cycle, SOUPS 2018*



Hala Assal

Sonia Chiasson

“Our work highlights the need to look beyond the individual and take a holistic approach to investigate organizational issues influencing software security.”

*Think secure from the beginning: A survey with software developers, CHI 2019*

# Do the Research as an Anthropologist

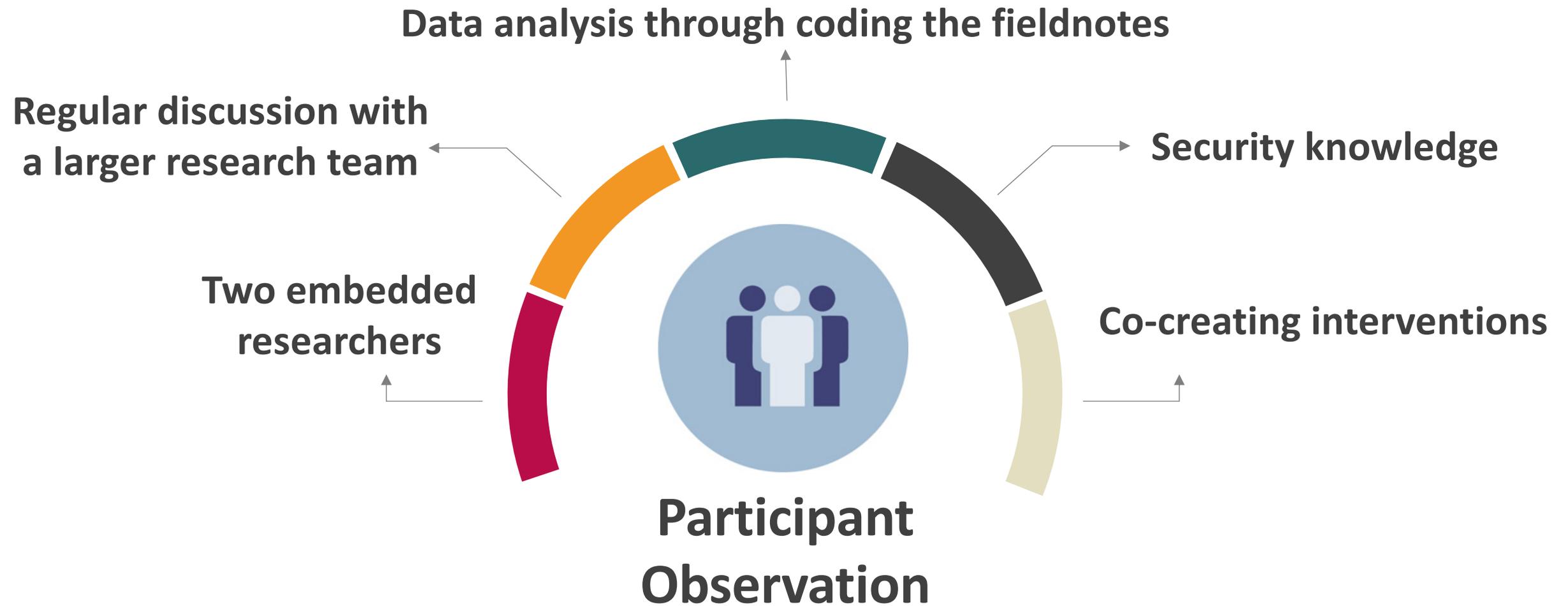
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- Studying the problem **within the context** of where the process happens
- Studying developers in their “**native habitat**”



**From the Native's Point of View: On the Nature of Anthropological Understanding,** Clifford Geertz,  
*Bulletin of the American Academy of Arts and Sciences*

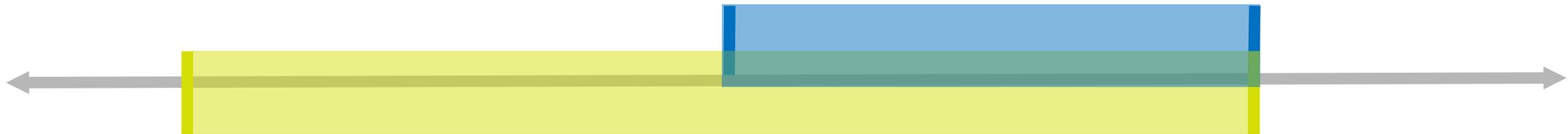
# Research Methods



# A Tale of Two Stories



Second researcher spent 6 months.



First researcher spent one year.

**One and a half years' data in total**

The researchers ...  
performed the same tasks as a regular developer.  
uncovered several vulnerabilities in the company's product.  
provided advices on how to fix them.

# Main Findings

- Security researchers need to understand the competing business demands under which developers work
- Security can be integrated into software development through a co-creation model
- Co-creation is more effective when it happens “in the moment,” and when security experts understand the competing demands the software development team faces in a business environment



# Thank You For Your Attention

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