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Mapping Wicked Problems: A theoretical framework for socially constructed knowledge systems

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Mapping Wicked Problems:

A Theoretical Framework for Socially Constructed Knowledge Systems

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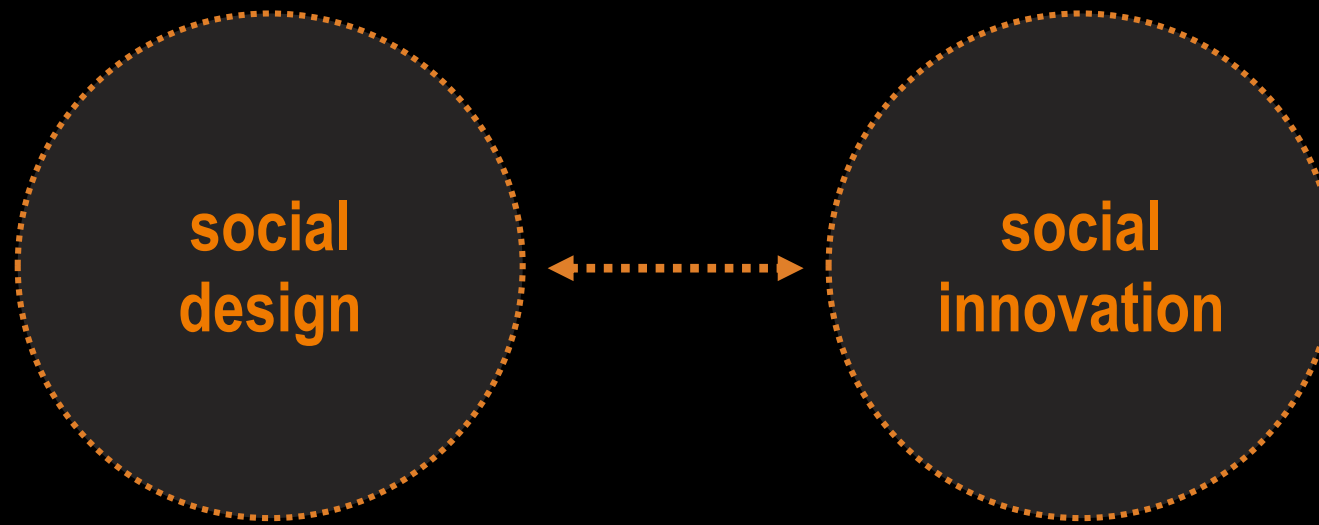


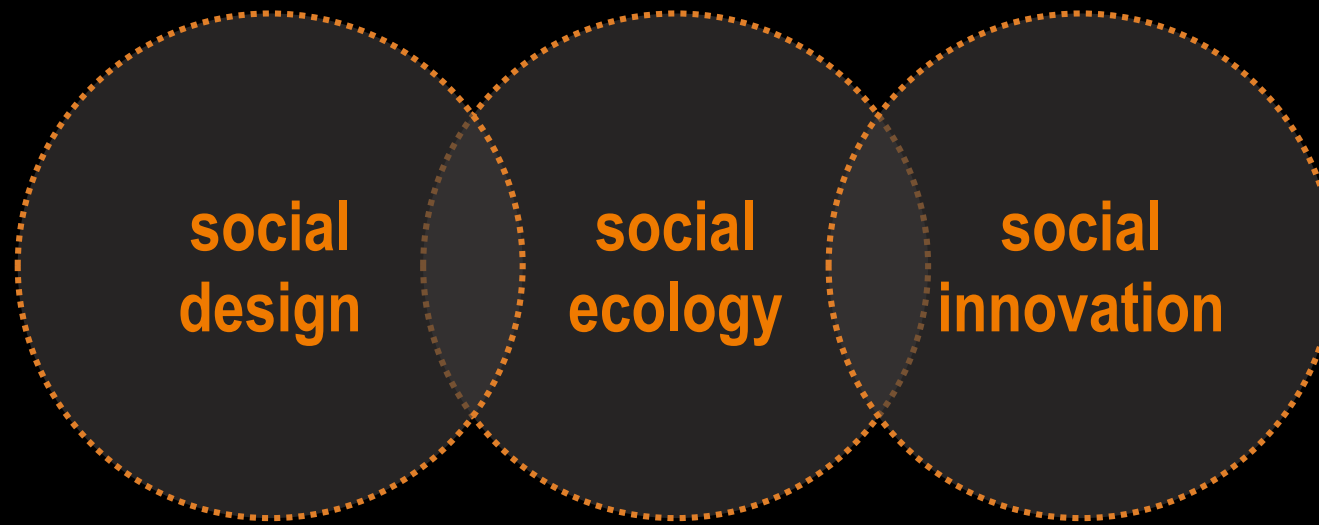
This presentation outlines a theoretical framework for socially constructed knowledge systems that I am developing that can be used to arrive at solutions specifically in dealing with systemic imbalances and social inequities.

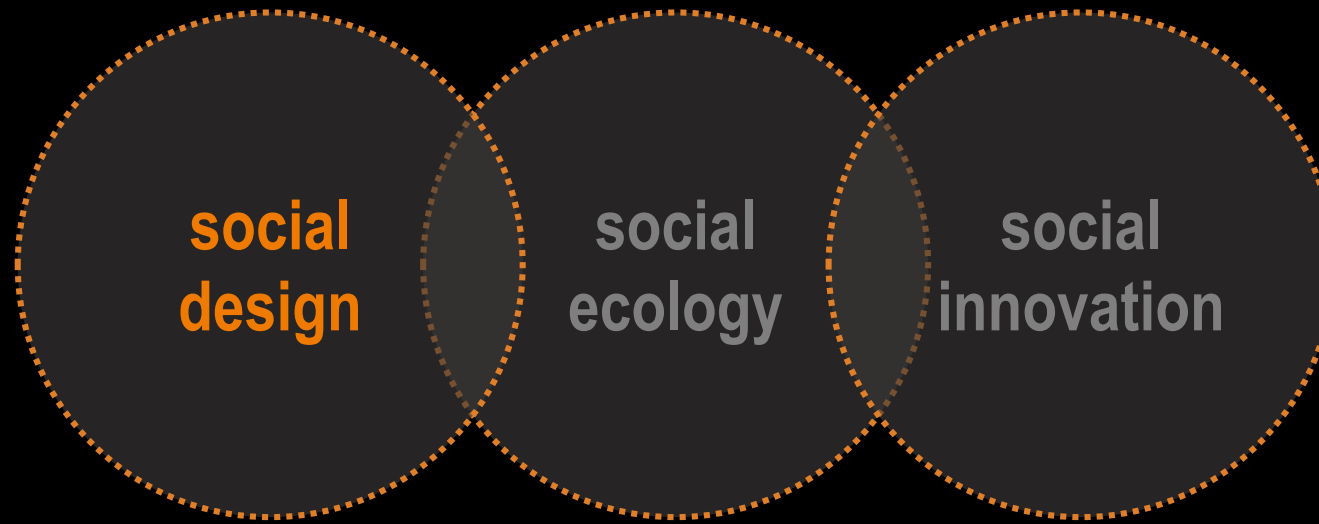
This exploratory approach introduces the concept of social ecologies and how an understanding of the core socio-ecological environment can help social designers drive social innovations that are sustainable and enduring.

- 1** defining of the term **social ecology** as it relates to social design and social innovation
- 2** paradigm shifts in design problems that influence both the design process and social innovation
- 3** case study: how social ecologies are read and applied within design solutions

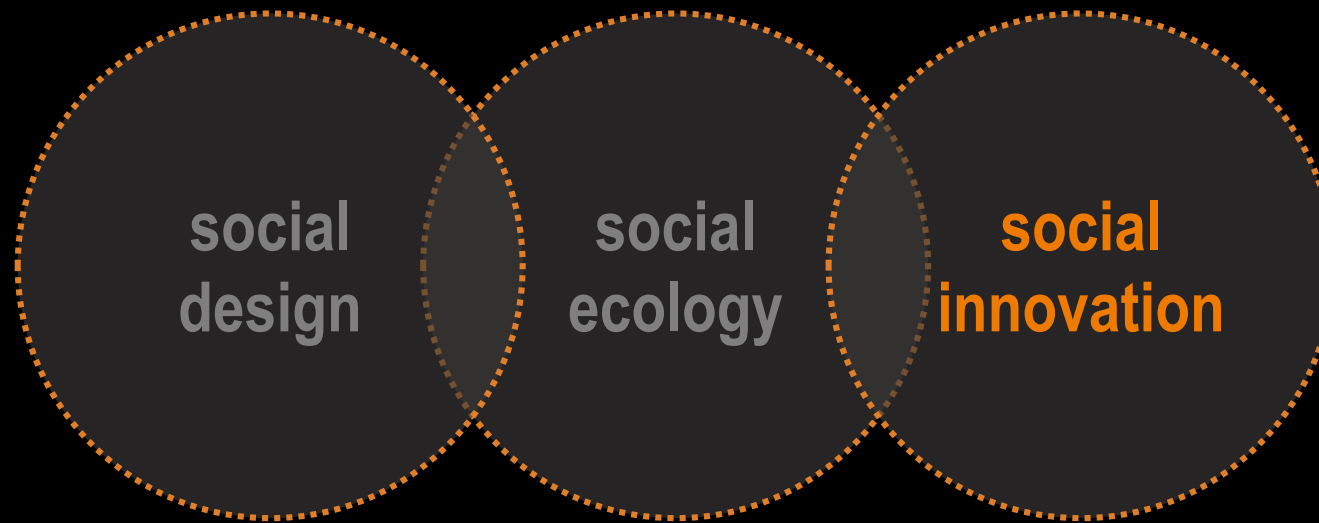
1 defining of the term **social ecology** as it relates to social design and social innovation







Social Design is an emerging area where design is used to address systemic imbalances and social inequities. Designers are increasingly transitioning from their traditional roles and expanding their footprint by addressing ‘wicked problems’¹ like poverty, digital divide, and youth violence through collaborative and participatory practices that instrument social innovation.



Social innovations are defined as new solutions (products, services, models, markets, processes etc.) that simultaneously meet a social need (more effectively than existing solutions) and lead to new or improved capabilities and relationships and better use of assets and resources.

The Young Foundation (2012) *Defining Social Innovation*

...the study of the relationship of organisms with their environment...

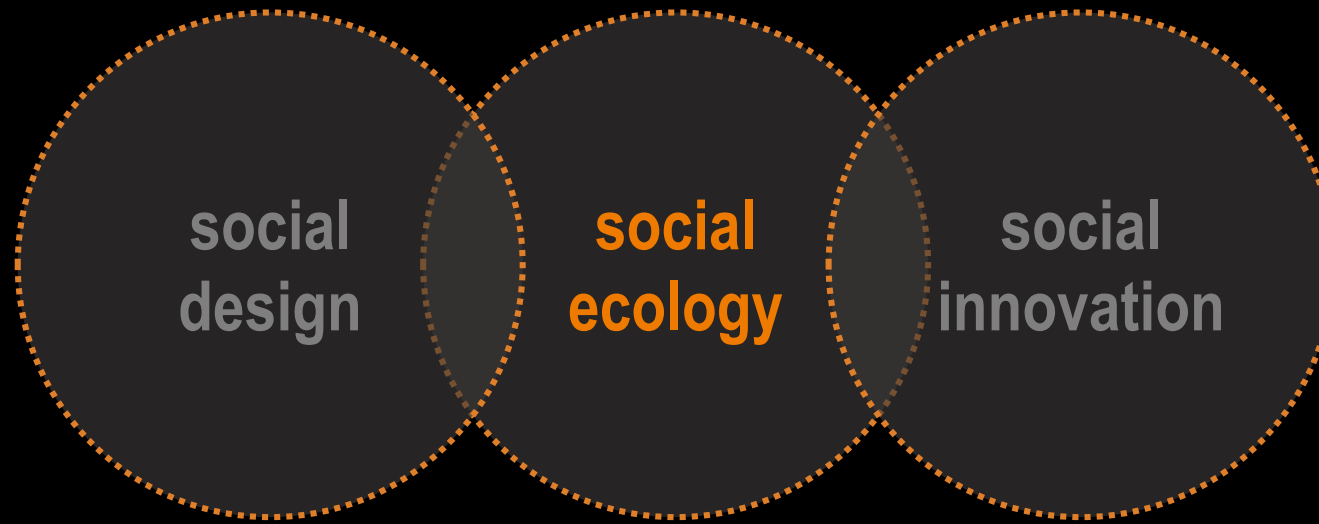
Ernst Haeckel (1866)

The ecological principle of unity in diversity grades into a richly mediated social principle...

Murray Bookchin (1984)

...interaction between the behaviour of an individual and his or her environments...

Hong, Crosby, and Lee (2017)



Social ecologies are favourable environments that serve as “enabling ecosystems” of cultural and social systems.

Manzini, E (2015) *Design, When Everybody Designs*

types of relationships within ecology



COMPETITIVE



MUTUALISTIC



COMMENSALISTIC



PARASITIC



PREDATORY



- predictable
- consistent

...it is important to understand the import of this concept within design. As with all systemic constructs (ecological, societal, or political) what surfaces to the top is not the problem but only an indication of the problem. Beneath this surface, there are several deep-rooted **relationships** that come together to create the social ecology.

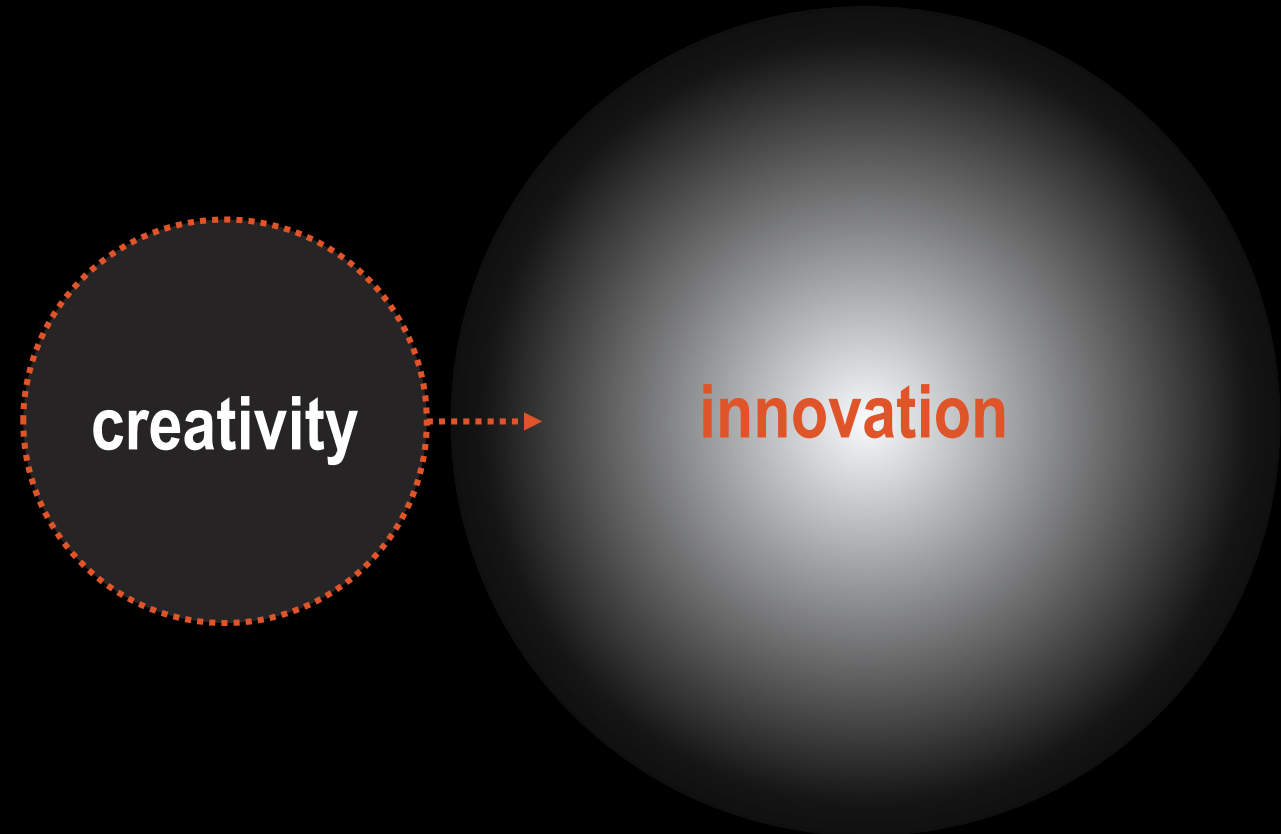
design and innovation cannot be sustainable if the design process does not address the root causes...

the understanding of the social ecology allows a shift from symptoms to root causes in problem framing and therefore the design process.

2 paradigm shifts in design problems that influence both the design process and social innovation

paradigm shifts in design problems and therefore the design process

tame problems	wicked problems
finite	emergence of expanded areas of influence
exclusive designer client relationship	inclusion of the user
simple	complex
prescriptive	collaborative
exclusionary	inclusionary
designing <i>for</i>	designing <i>with</i>



3 case study: how social ecologies are read and applied within design solutions



case study

MITIGATING YOUTH VIOLENCE *in* SOUTH BEND

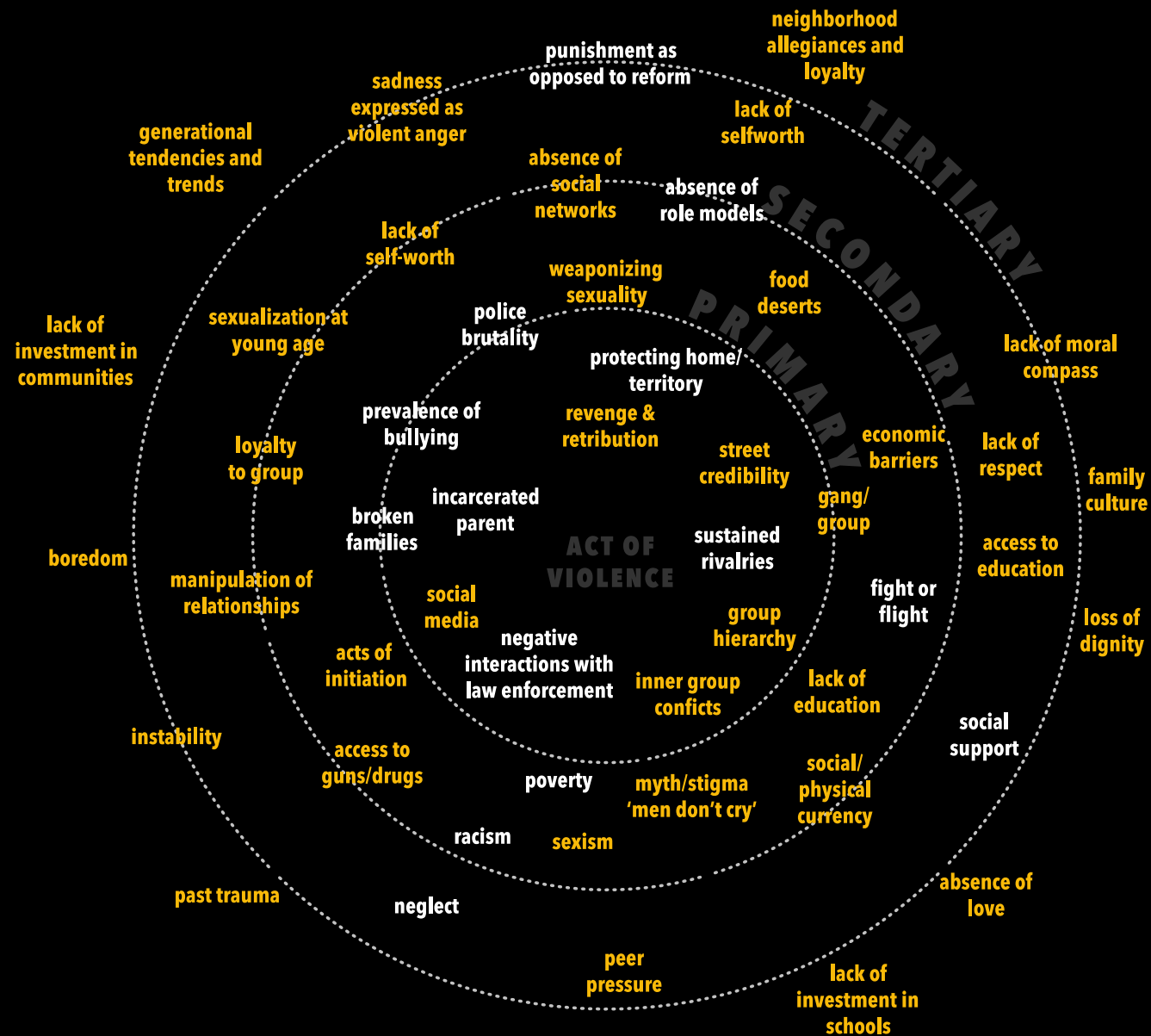
researching the caus



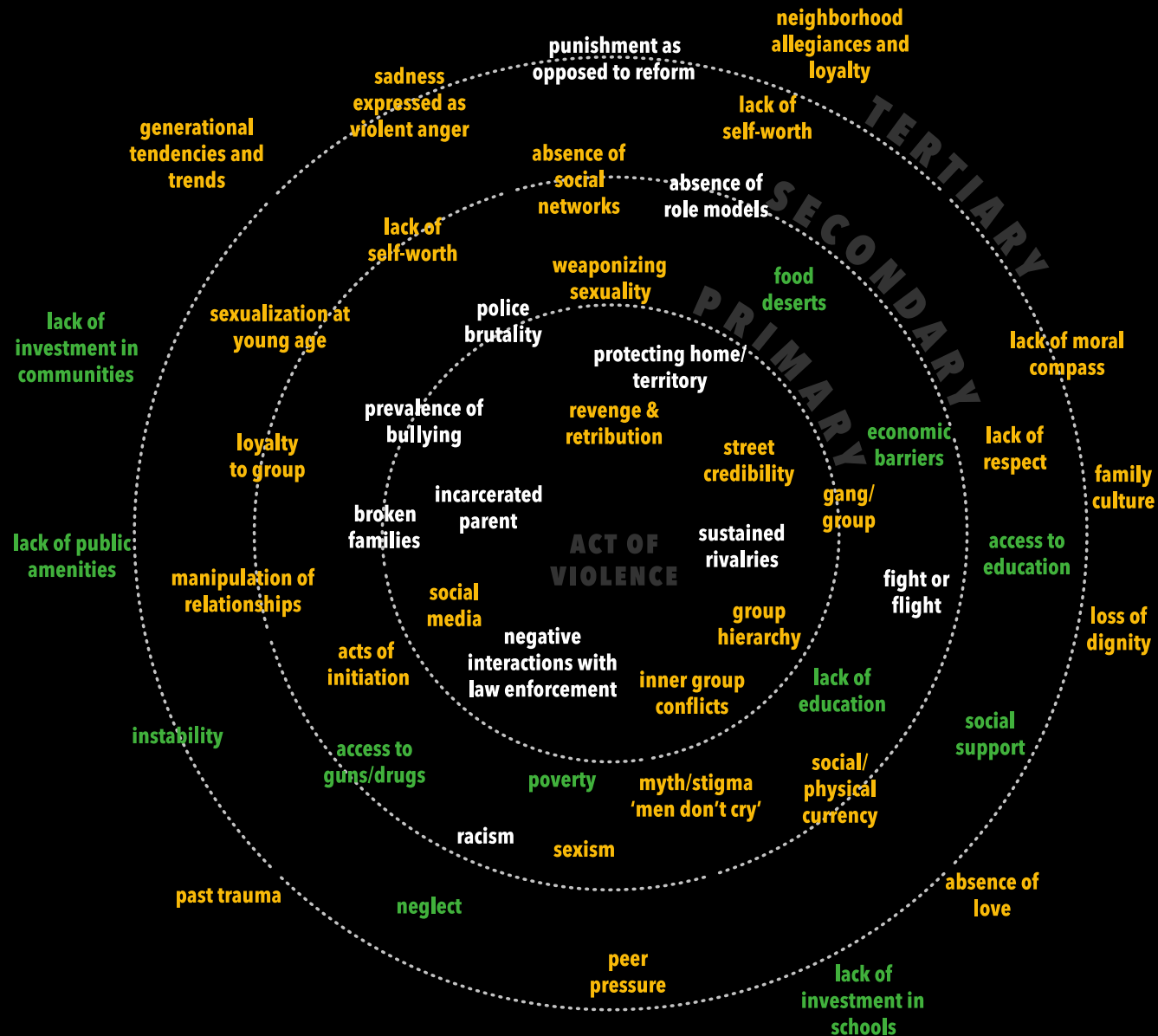
mapping the causes



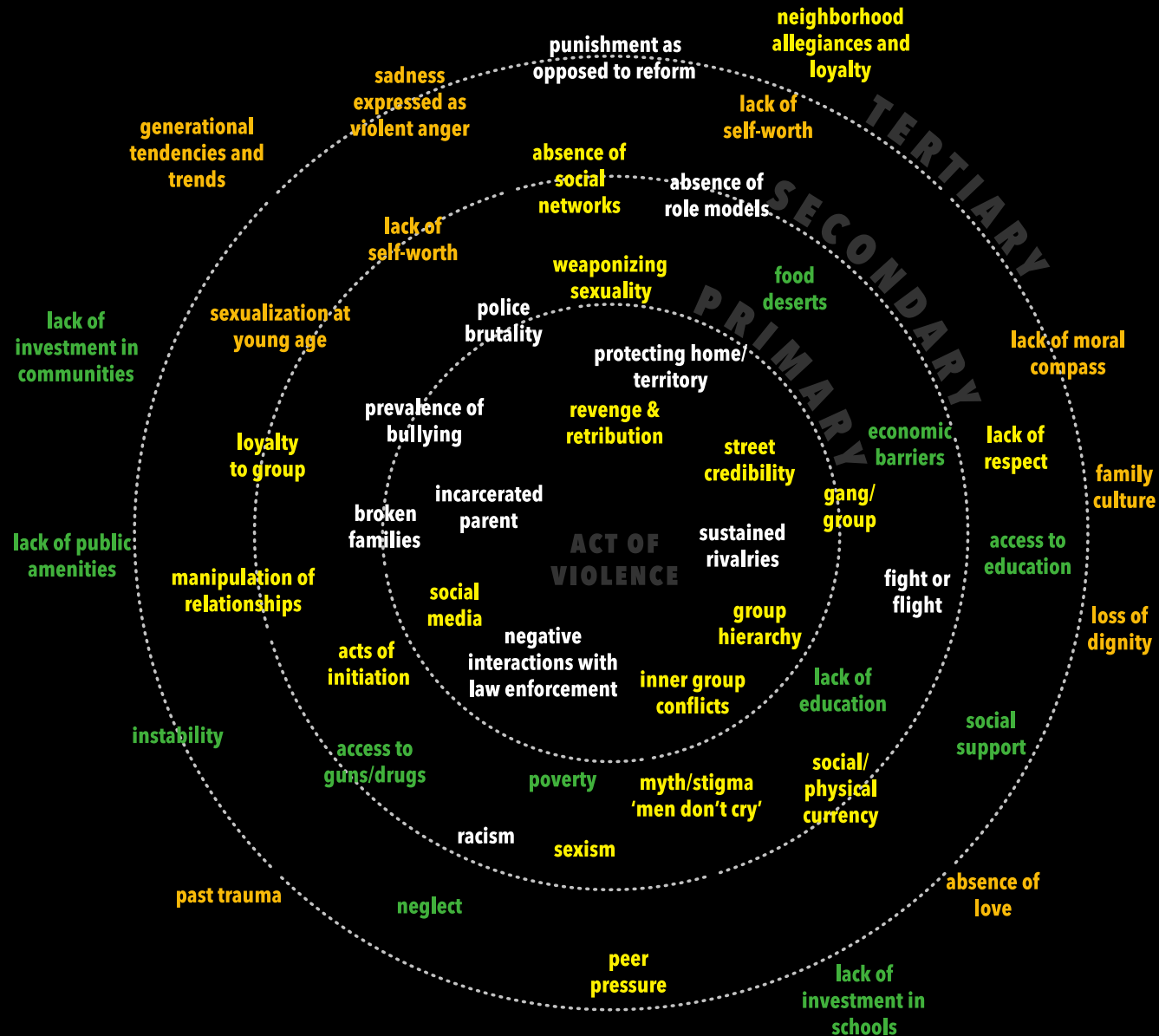
classifying the cause



classifying the causes



classifying the causes



synthesizing the causes

- police brutality
- prevalence of bullying
- negative interactions with law enforcement
- incarcerated parent
- broken families
- racism
- fight or flight

LAW ENFORCEMENT

- lack of education
- food deserts
- lack of investment in communities
- lack of schools
- economic barriers
- neglect
- fight or flight
- poverty

CITY GOVERNMENT
Civic Policies

- gang/group
- street credibility
- inner group conflicts
- social/physical currency
- acts of initiation
- manipulation of relationships
- loyalty to group
- absence of social networks
- peer pressure

COMMUNITY
ORGANIZATIONS
Social Factors

- lack of self worth
- lack of moral compass
- family culture
- loss of dignity
- absence of love
- past trauma
- generational tendencies and trends
- sadness expressed as violent anger

COMMUNITY
Personal

types of relationships within ecology



COMPETITIVE

==

MUTUALISTIC

++

COMMENSALISTIC

+0

PARASITIC

0-

PREDATORY

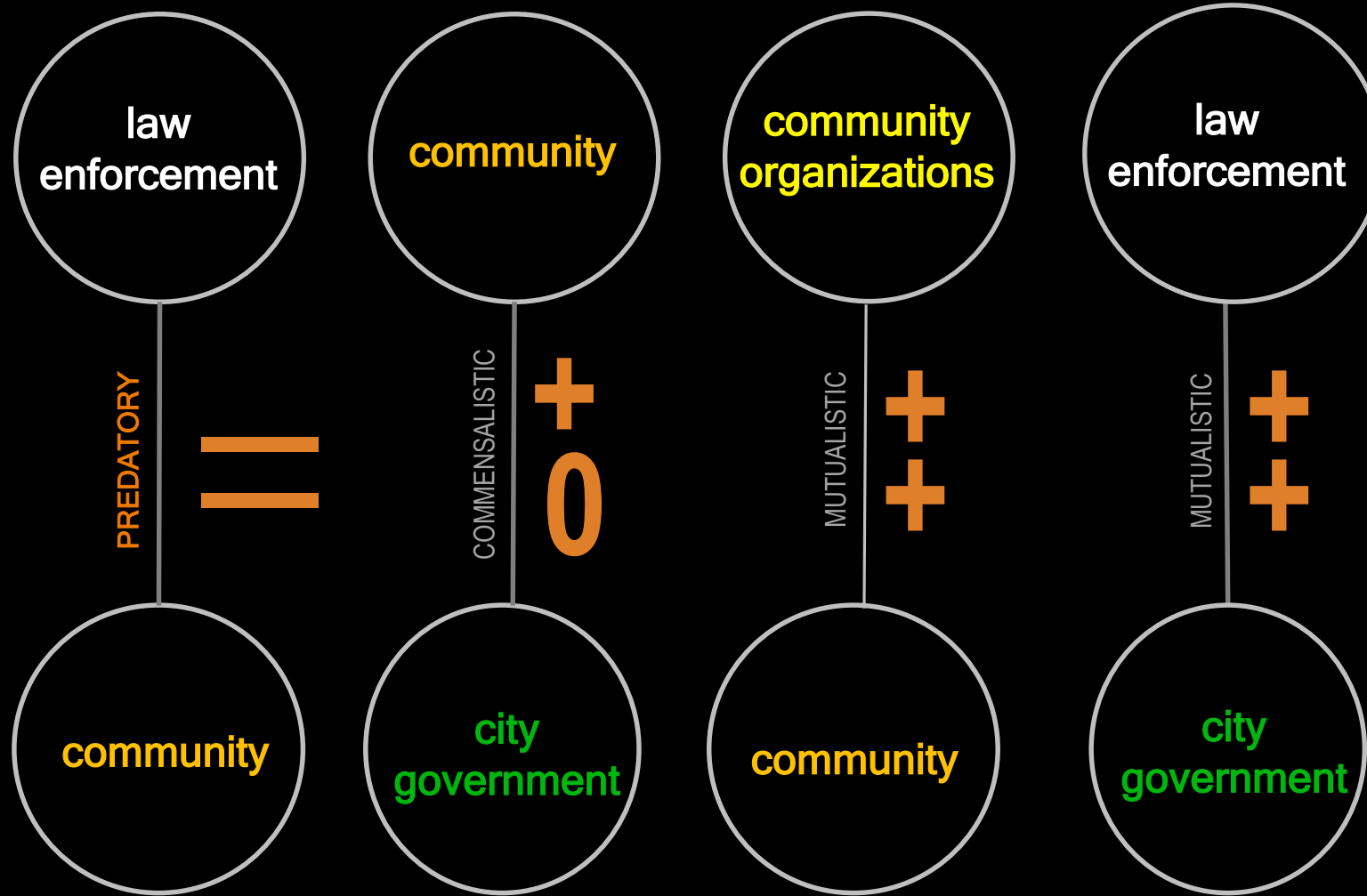
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- predictable
- consistent

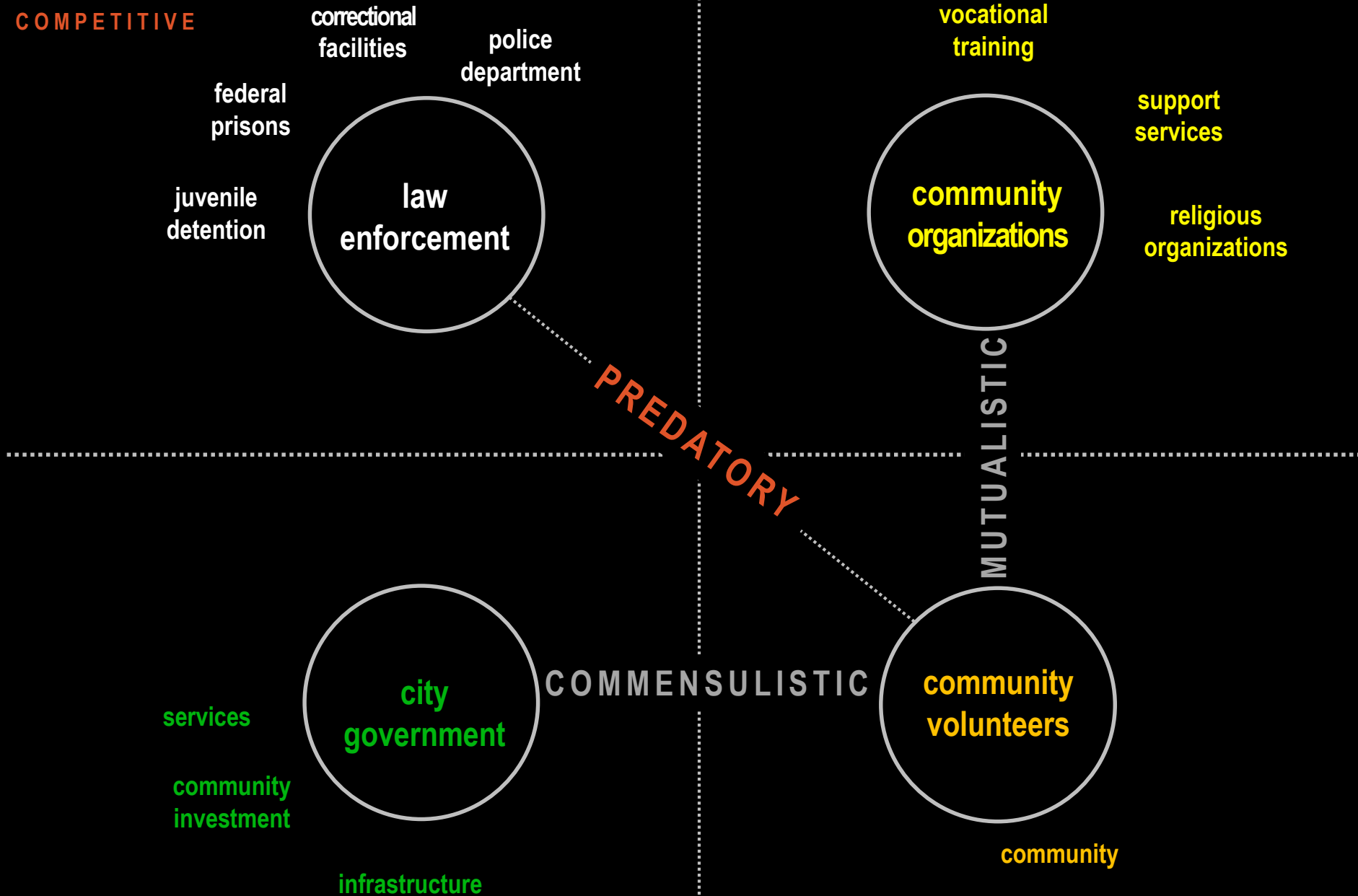
understanding underlying root causes

real and perceived relationships within social ecology



- fluid
- impermanent
- culturally impacted

problem framing and understanding the social ecology



the interrelationships are deeply siloed and the primary problems lie within the four areas with the problem being the greatest between law enforcement and community

Students worked on all three relationships. While the *mutualistic* and *commensalistic* were reinforced, the aim of the design intervention with the *predatory* was to diminish the polarization between the two segments to help the two sides see a more human side of each other.

Humanizing the System



Justine Wang

The Fire That's Never Gone Out: Humanizing Our System with Cynthia Nelson

1 year ago

Storytelling

In album: Humanizing The System: A Podcast on Mitigating Violence in South Bend, In...



1:58



social innovation instrumented within **social design**, therefore, is a direct outcome of an extensive understanding of the **social ecology** within which the problem exists and problem framing that is derived from the evaluation and comprehensive understanding of the social ecology therein.

Thank you!

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With my deep gratitude to the reviewers...