

Geo-emotions: Research, Challenges, and Mapping

Geo-emociones: investigación, desafíos y mapeo

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Abstract: One emerging trend in scholarly worlds is discussing concepts and theories that cross disciplinary lines, such as climate change, COVID-19, and human welfare. Another example is human emotions, which are increasingly drawing transdisciplinary and international interests. These worlds are explored by introducing the concept of geo-emotions that intersects research beyond behavioral psychology, with geography, sociology, anthropology, leisure studies, disaster impacts, conservation, as well as environmental scientists, cartographers, and GIS specialists. Research challenges are addressed such as the importance of mapping emotions at local, community, national, and global scales.

Keywords: Place and landscape emotions; Mapping emotions; Human/environment research challenges

Resumen: Una tendencia emergente en el mundo académico es discutir conceptos y teorías que cruzan líneas disciplinarias, como el cambio climático, la COVID-19 y el bienestar humano. Otro ejemplo son las emociones humanas, que atraen cada vez más intereses transdisciplinarios e internacionales. Estos mundos se exploran introduciendo el concepto de geo-emociones que cruza la investigación más allá de la psicología del comportamiento, con geografía, sociología, antropología, estudios de ocio, impactos de desastres, conservación, así como científicos ambientales, cartógrafos y especialistas en SIG. Se abordan los desafíos de la investigación, como la importancia de mapear las emociones a escala local, comunitaria, nacional y global.

Palabras clave: Emociones de lugar y paisaje; Mapeo de emociones; Desafíos de la investigación humana y ambiental

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“... my landscapes are ‘inscapes’ that include psychological conditions as material arrangements. ...most geographer are too extroverted, to happily engage with external reality to write their own story.” (Tuan, 1999: 10).

“[There is] a silencing of emotion in both social research and public life.” (Anderson and Smith, 2001: 7)

“Only relatively recently have cartographers taken up the emotional component of the human relationship with space.” (Griffin and McQuoid, 2012: 291)

“... the world needs emotional geographies and why geography needs to take emotions seriously.” (Smith, Davidson, Cameroun and Bondi, 2009: 5)

“Beneath the surface, maps and mapping teem with emotions of all sorts.” (Caquard and Griffin, 2019: 4)

“Whether in real or digital life, emotional labour and emotion work are constitutive of temporality, sociality and spatiality.” (Ho, 2023: 1)

Introduction

Humans express and experience many kinds of emotions every day in their lifetime. These include happiness and sadness, enlightenment and despair, and optimism and pessimism. These are not only experienced inside the body or mind, but also with places and landscapes. On reflection, we would likely associate feelings of good or ill, positive or negative, with a specific place—a home, at work, in a gathering place such as a park, a religious building, a public event, in hospitals, at celebrations, parades, cemeteries, and on special holidays.

Feelings or emotions are experienced by humans of all ages, social classes, religious faiths, work and leisure life experiences everywhere. They might be children in a play space, teenagers in some place of music or dance, adults in gatherings of like-minded folks, elders in an engaging community activity, young adults mentoring refugees in language training, or volunteers assisting in disaster recovery efforts. These examples illustrate and exhibit both human behaviors *and* locations or places. The concept *geo-emotion* defines the intersections of emotions and place (Figure i). While acknowledging that emotion-place linkage may appear to be common sense, the integration is not a major theme in scholarly worlds. Too often members of caring scholarly communities, whether related to health, environment, leisure

or faith, separate these two “scholarly worlds” into separate disciplines or fields of study. That is, human emotions traditionally have often considered the “realm” and focus of those in sociology such as human health and welfare or branches of psychology such as clinical and behavior while places, landscapes, settings and environments are the focus of social and behavioral geography. That focus has changed with scholars trained in formal disciplines recognizing the importance of inter- and transdisciplinary research. Correcting this “binary thinking” calls for exploring the commonalities and intersections between human behavior and place beyond a binary context in the “mind” and “place” worlds.

The background literature on emotions is diverse and presents a solid foundation for subsequent research in specific disciplines and subfields that explore research on yet-to-be-addressed fields. Examples of pioneering research are contributions by Arnold (1970); Tuan (1999); Anderson and Smith (2001); Widdowfield (2000); Flam and King (2002); Davidson and Mulligan (2004); Thrift (2004); Anderson and Harrison (2006); Urry (2006); Bondi (2008); Aiken (2009); Cylwik (2010); Pile (2010); Davidson, Bondi and Smith (2016); and Foley (2022). They and others have laid the groundwork for recent transdisciplinary studies by Grinberger (2018), Beatty (2019), Gonzalez-Hidalgo and Zografos (2019), Glapka (2019), Parker (2019), Györke and Bülgözdi (2021), Wang et al. (2021) and Peck (2023).

Figure i. The intersecting world of geo-emotions.

(Anexo)

A Fluid Mosaic of Time and Place and the “Whereness” of Emotions

It is the “place–emotion” nexus that is addressed in this thought piece, a nexus that needs to be explored and illustrated in more detail through the use of maps, photos, and other visual images. All emotions are associated with some place, landscape, network, and environment. These may be a room in a home, places at work, on or along a street, a neighborhood setting, a park, a restaurant, an entertainment venue, a shopping mall, a place of worship, a busy traffic artery, a lonely country road, a river or coastline, a hospital, a scenic landscape, a sporting event, or a pilgrimage route. Mixes of emotions and place attachment are associated with each. The emotions may be different for an infant, a teenager, a volunteer, a professional, a refugee, a new citizen, a tourist, a person who lost a spouse, a victim of human trafficking, a disabled person, or one relocated following a natural disaster or military conflict, or someone not knowing the majority language spoken. Feelings can be laughter or sadness, glee or despair, or inward or outward fear or contentment. Failure to explore and examine place–emotion intersections will likely only perpetuate the binary worlds that persist among many in the humanities, social, and behavioral sciences. Examples of mapping these place–emotion worlds can be depicted at all scales, from personal to global. In the following sections, the place features of emotions are explored by reviewing recent research in various disciplines and presenting hypothetical examples of what some future maps might look like.

The “Whereness of Emotions”

Examples of emotions that humans experience include happiness and sadness, excitement and apathy, inspiration and complacency, gregarious and timid, spiritual and secular, healthy and unhealthy, confidence and insecurity, togetherness and loneliness. While we often might consider emotions and places as separate worlds, for many of all ages they are on a “sliding continuum” that varies depending on age, income, social class, family security, marital relationship, workplace comfort, group structures, and places of comfort or discomfort. They are not rigid or fixed; rather often, somewhere in between.

The emotional life has many varieties attached to place. A place may have a shallow or deep

emotional meaning depending on time. A place and time setting may bring comfort and joy or despair and disillusion. Perhaps we can choose a particular time and experience a specific emotion, for example, a Thursday evening book club discussing science fiction writers or a novel about recent immigrants. Or perhaps we chose an informal Monday morning group therapy for those who lost a mother, or a Saturday morning working in a community kitchen to feed people who were displaced by a war or a national disaster. The daily life of many is both a “time map and a place map” associated with positive or negative emotions about children, parents, elders, lovers, lifelong and seasonal residents. In many cases the “geo-emotional world” is a basically a “fluid mosaic” with different “time and place maps” for mornings, afternoons, evenings, and nights and are different for public parks, homeless shelters, worship experiences, counseling centers, and senior citizen centers. The map or maps may change by the hour, the day of the week, a city center or new suburb, a weekend vacation destination, or a seasonal vacation.

It is those intersections of the “whereness” of emotions that psychologists, sociologists, anthropologists, and social/behavioral geographers need to address more seriously in understanding human behavior. This point has been made by more than one of the authors cited above. Psychologists study human behavior of children, teenagers, young and middle-aged adults, emotionally stressed children and adults, gender and transgendered youth and adults, healthy and disabled elders. Their focus is understanding the person’s actions, experiences, behaviors, and worldviews, and less on the importance of places, landscape, environments, and human settings. All daily, weekly, monthly, and annual life experiences have a locational or place component.

Constructing an Interdisciplinary and International Database

Research on emotions is transdisciplinary, interdisciplinary, and international in topics and authors. The English language Google Scholar database on 5 August 2023 identified a sizable number of hyperlinks on related themes: Emotions and Place 6.5 million; Emotions and Landscape 1.8 million; Emotions and Maps 1.8 million; Geography and Emotions 1.7 million; and Geography, Emotions and Maps 949,000. To obtain a reading on intersections between geography and emotions, I examined the names of journals publishing the ten most highly ranked articles with these themes. Omitted were

articles and chapters that were medical science in content. For the Geography and Emotions category, which is broad, I examined the content of the highest 109 citations. Almost all these citations were 2018 and later.

The searches revealed the extent of recent research related to geo-emotions. There are some familiar interdisciplinary journals that have published articles on emotion–place topics. These include *Ethnic and Rural Studies*, *Third World Quarterly*, *Habitat International*, *Social Science and Medicine*, and *Gender, Place and Culture*. More than 20 interdisciplinary journals published articles on emotions, feelings and behavior; these include *Digital Media*, *Sustainability*, *Journal of Heritage Tourism*, *Critical Policy Studies*, *Emotion, Space and Society*, *Sports and Society*, *Frontiers in Psychology*, *Well-Being, Space and Society*, *Journal of Hospitality and Leisure*, and *Social Science and Mental Health*. Not unexpectedly, of the many highly ranked geography journals that published articles related to emotions, many were based on fieldwork. Examples include *Annals of the American Association of Geographers*, *The Professional Geographer*, *Geografiska Annaler Series B, Area*, *Journal of Geography in Higher Education*, *Environment and Planning C*, *Geoforum*, *Geography Compass*, *Geographical Review*, *International Journal of Human Geography*, *Transactions of the Institute of British Geographers*, *Progress in Human Geography*, *Geographica Helvetica*, and *Political Geography*.

Recent Research

I identified 160 references on geography and emotions. These were written by scholars in many different fields in the social sciences and humanities who came from all continents. Some research was based on observation, some on surveys, some on field work at local levels, and some cross-cultural. The scope of recent research reveals the diversity of topics and conceptual frameworks that scholars in different disciplines use to study place, environment, and emotions. Examples of recent research studies include a very wide range of familiar and novel topics such as asylum seekers, climate change, everyday geographies, feminism, grief, migration, relocation, social media, tourism, and youth (**Table 1**).

Table 1. Recent examples of research on emotions and place/landscape/environment linkages.

(Anexo)

Mapping Emotions: Hypothetical Patterns

A key to understanding geo-emotions is the importance of maps. To reiterate a point made above, emotions have a locational feature that can be placed on maps, not for decoration or some eye-pleasing attraction, but for understanding what might be associated with a location. Where something appears is important in understanding human satisfaction and security as well as promoting human welfare for people in places, spaces, and environments. Maps are not simply putting some feature on a flat surface, such as a paper map or a computer screen, but as information, features that can aid in understanding where something is and also where something might be or might best be. In this context, “place and emotions are intricately linked” for human betterment and understanding. In this context, what would be desired is psychologists teaming up with social geographers and planners to better understand the linkages or intersections that exist.

Maps displaying emotions have been an integral part of recent research on communities (MacKian, 2007), wayfinding (Garter, 2012), experience (Griffin and McQuoid, 2012), crime (Curtis, 2013), grief (Maddrell, 2016), safety (Panek et al., 2017), cities (Nenko and Petrova, 2018), and habitats (Li et al., 2020). Both traditional and GIS maps could be constructed based on observation, household and community surveys, and data gathered by health, law enforcement, school systems, and social welfare governmental and nongovernmental organizations.

To further illustrate the “geo” components of emotions, I constructed a series of hypothetical maps to illustrate possible patterns in and between countries and in large and small cities along major highways (**Figures ii and iii**). The places and place settings may associate with a place that readers know well or very little. In an ideal context, it would be desirable to identify the specific locations with emotional issues and concerns, but obtaining raw data on emotional issues is impossible to obtain. Yet it is important to recognize that slight or severe emotional issues have geographic patterns. If actual data were available and mapped it would likely show some emotional issues are scattered evenly throughout an urban area while others are concentrated in specific locations, such as areas of low or high income or areas of new or elderly residents. Distinct geographic patterns are also likely evident in road networks, for example roads involved in human trafficking or smuggling drugs across international or state borders.

Figure iii. Hypothetical examples: Global.

(Anexo)

Emotional Research with and without Maps

It is possible to consider, describe, and discuss emotions, positive or negative, personal or regional or global, without a locational or geographical or place-based context, but in doing so a major “gap” remains in our understanding and undertaking constructive efforts to address problems with a sound geo-emotional database. It is akin to understanding a specific event or happening without a time reference. The path would be like studying something that happens and ignoring the context in which it happens. That recognition will enable people in public service or human welfare or caring professions to better understand the importance of a place or landscape or the geographic settings associated with abused spouses or children, single-parent households living in high crime areas, drug overdose and drug dealer networks, neighborhood institutions welcoming refugees, and victims of military conflict.

Preparing maps of emotional issues is only one part of the effort to resolve problems and to increase public awareness about the “what and where” questions regarding an emotion or a group of emotions. Another cartographic dimension is trying to understand the patterns on a map. That task may be simple or very difficult. The pattern may be a few clusters in a few parts of a city or many clusters in many locations. Understanding or seeking to understand the place settings may be easy, but also very difficult. Interpreting the patterns themselves often will present problems not only for the life-long professional familiar with the city or specific neighborhoods in a city, but also for the person who works on community-wide issues about health and welfare for a specific age, income, ethnic, or racial cohort. In short, gathering data to map, making maps, and interpreting maps, whether based on ground-truth data or computer-driven data for GIS maps is not an easy or comfortable task.

Where To Go from Here?

As we continue thinking about the concept of exploring research topics about geo-emotions, some additional examples come to mind (**Table 2**). Also, some broader questions need to be explored. Here are seven suggestions.

Table 2. Potential research themes and maps expanding our geo-emotional knowledge concepts.

(Anexo)

First, develop instructional typologies to conceptualize our thinking in geographic or place/landscape contexts. These might be based on scale, that is, personal to global, and include examples: pleasant and unpleasant, personal and regional, affecting boys and girls, women and men, and individuals of different ages, sexual orientations, social classes, and faith communities.

Second, identify existing and available databases about different emotions and construct databases for those wishing to further explore the geographic features of emotions. These databases may emerge from conversations and meetings with various caring and human welfare communities, public and private.

Third, prepare workshops to train professionals about the importance of geo-emotional data gathering, constructing maps at different scales and teaching participants how to read and interpret traditional and more sophisticated GIS maps. The training would apply to people who work in health and security fields, faith communities, community welfare, disaster recovery, refugee resettlement, children, the disabled and the elderly, voluntary NGOs, the un- and under-employed, women of all ages, and human empowerment.

Fourth, construct a series of maps related to geo-emotional landscapes and places and display them in public places such as libraries or on public websites. These may be constructed at neighborhood and local levels as well as metropolitan and regional scales. The maps may include the location of problems and issues related to emotions as well as sites where both professional and voluntary offices and their networks are located.

Fifth, organize a series of interdisciplinary and international local, national, and regional conferences about the geographic components of human emotions. These could and should include scholars from the social and policy sciences and the humanities who study experiences and place settings. It could also include anyone responsible for community and neighborhood initiatives such as parades, fairs, games, and gardens to improve the community harmony.

Sixth, plan future issues of major interdisciplinary and international journals that feature innovative articles on geo-emotional themes appealing to scholars in the humanities, social, and policy sciences at local, regional, and global scales.

Seventh, organize international and interdisciplinary conferences that focus on constructing databases, multilingual geo-emotional websites using GIS technologies to map temporal and spatial patterns and processes at local, national, regional, and international scales. Invited participants could come from universities, intergovernmental and governmental offices as well as companies producing GIS software and hardware.

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Anexo

Figure i. The intersecting world of geo-emotions.

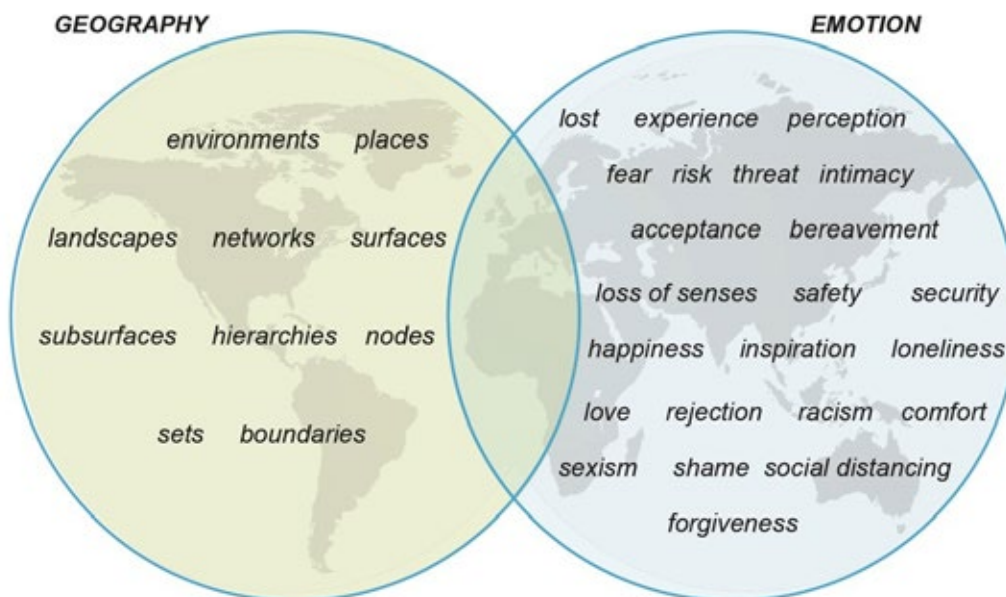


Figure 1. The Intersecting World of Geo-Emotions

A Fluid Mosaic of Time and Place and the “Whereness” of Emotions

Table 1. Recent examples of research on emotions and place/landscape/environment linkages.

Topic	Research Examples
Secularism	Arik, 2018
Sports	Avner et al., 2022
Migration	Buckle, 2020
heritage sites	Cento Bull and De Angeli, 2021
Disease	Buse et al., 2020
social media	Kiminami and Duggan, 2022
Diasporas	Clayton and Maryene, 2020
Gender	Coen et al., 2020, Lyons, 2018, Pereira, 2021
end-of-life	Collier and Broom, 2021
Crime	Curtis, 2013
Children	Djohari et al., 2018; Gudd, 2019; Jupp, 2021
Safety	Djohari et al., 2018; Panek et al., 2017
Architecture	Dorignan and Nethercote, 2021
Wilderness	Douglas et al., 2023
Wildlife	Epstein and Hagerty, 2022
Happiness	Gallegos et al., 2016
Refugees	Gökarıksal and Secor, 2018
Experience	Griffin and McQuoid, 2012
indigenous groups	Hak et al., 2021
Mobility	Henderson, 2021
Loneliness	Holton et al., 2022
Youth	Hörschelmann, 2018
lost and found	Hughes and Mee, 2018; Hughes, 2020
Color	Kaufman and Lohr, 2002
everyday geographies	Klingorová and Gökarıksal, 2019
Relocation	Laszezynski, 2019
Drugs	Leung, 2021
Habitats	Li et al., 2020
casino hotels	Lo, 2018
Intimacy	Lulle, 2020

Bereavement	Maddrell, 2016
Grief	Maddrell, 2016
Disasters	Martina and Buda, 2018
mental health	Matsuoka, 2020
Dystopia	McKenzie and Patulny, 2021
Tourism	Molz and Buda, 2022; Yan and Halpenny, 2022
climate change	Neckel and Hansenfratz, 2021; Roy, 2019; Kemkess and Akerman, 2019
Geotourism	Pralong, 2006
Slums	Prouse, 2021
film making	Rivera-Escartín and E. Johansson-Nogués, 2022
Migrants	Rivera-Escartín and E. Johansson-Nogués, 2022
Communities	Rohse et al., 2020
place attachment	Santos et al., 2017
wine cellars	Santos et al., 2017
privileged spaces	Savelli, 2023
Cities	Savelli, 2023; Nenko and Petrova, 2018; Shee, 2021; Vanolo, 2019; Acedo et al., 2019
Fear	Schoenberger and Beban, 2018
Religion	Shaker and Ahmadi, 2022
place naming	Short and Dubots, 2020
Paintings	Tolia-Kelly, 2008; Savelli, 2023
flower power	Tubadji and Montalto, 2021
Shame	Vanolo, 2020
film sets	Watson et al., 2018
Psychotherapy	White et al., 2020
Ethnicity	Wise, 2010
Love	Wylie, 2009; Mamurkhanovna, 2022
Smellscapes	Xiao et al., 2020
Chinese social welfare	Yu and Xue, 2022
Feminism	Zaragocin et al., 2020; Radó-Zárate, 2022
asylum seekers	Zill et al., 2021

Figure iii. Hypothetical examples: Global.

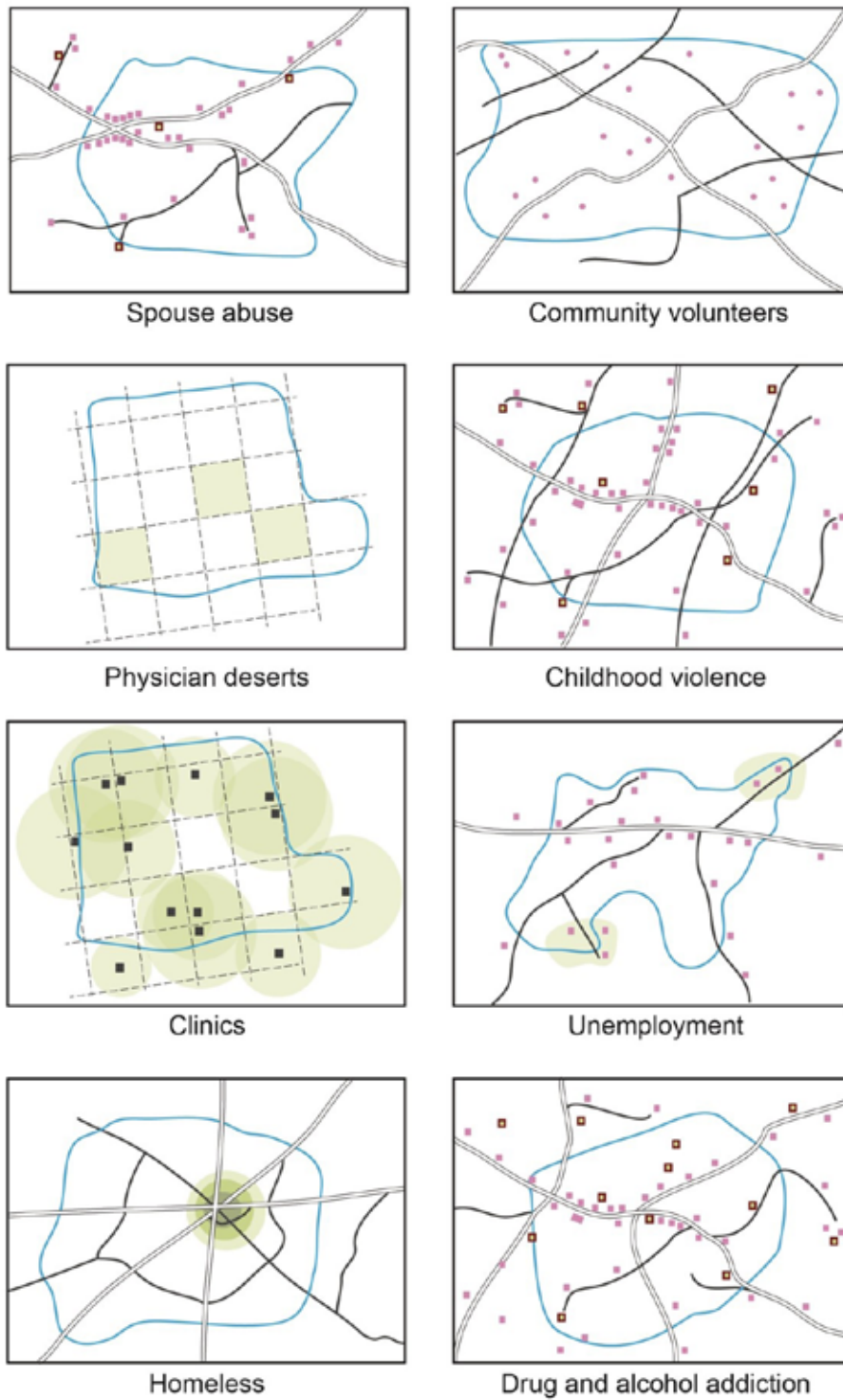


Figure 2. Hypothetical examples: Urban.

Figure ii. Hypothetical examples: Urban.

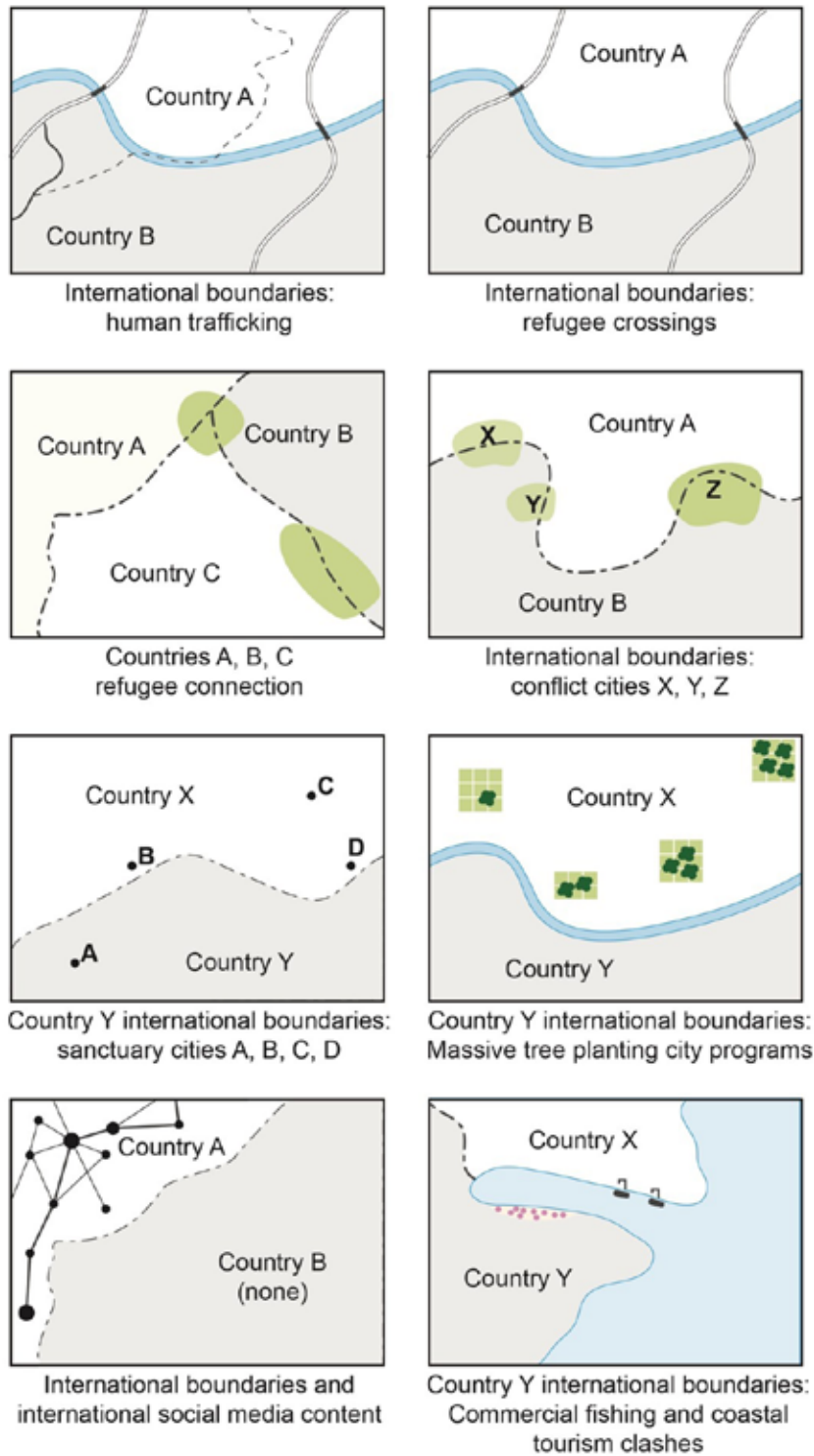


Figure 3. Hypothetical examples: Global.

Table 2. Potential research themes and maps expanding our geo-emotional knowledge concepts.

Local	Bi- and trilingual websites for new refugee populations; Big Brother/Big Sister programs; children’s drawings of climate change impacts; climate change and gender; climate impacts on mega-engineering projects; climate refugees; community film, drama and art events; commercial fishing and water tourism conflicts; community “deserts” – health care, counseling, grocery stores, public safety and public transportation times and routes; community gardening and murals on building exteriors; drug overdose and suicide attempts; emotions from battlefield re-enactments; emotion/architecture design intersections; ESL (English as a Second Language) networks; fear and terror; foster parent networks; gated community security and insecurity; “green” spaces for all ages; heritage emotions; human trafficking networks and border crossings; individual and community “place retreat” spaces; indoor and outside therapy places; inspirational music related to places, landscapes and memories; malnutrition changes over time and space; marginalized farm labor (local and seasonal); networks of faith and interfaith groups providing food, housing and health services to places affected by natural and technological disasters; place and online emotions; Muslim and Asian cultures in Euro-American cities; place name changes; post COVID-19 “place” cures; priorities for women’s health and well-being; pro bono legal networks; restrictions on women obtaining abortions; public libraries providing classes for human empowerment of youth and elders; role of media (print and visual); safe havens for women and children; sanctuary city networks; seasonal workers’ needs; social distancing among new immigrant populations; sources and distribution of hate social media; the time and space processes in belonging; visible and invisible healing networks; the impact of “placeless” social media on a youth and elderly geographical awareness
Regional and interregional	asylum seekers; boundary and transboundary issues related to improving human welfare; crop failures; cooperative programs of interfaith groups; logistical strategies for delivering food, housing and water to communities in need; locational priorities for food, housing and security; mapping regions of levels of risk; mapping regions (rural and urban) at risk from climate change; transport routes used by those experiencing political conflict and ad hoc natural disasters; role of global print and visual media – governmental and intergovernmental; spread of diseases; global print and visual media reporting on conflicts, disasters and healing

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