



CRAVING

HOW SOCIAL AND PSYCHOLOGICAL FACTORS SHAPE THE EXPERIENCE OF CRAVING IN ADDICTION

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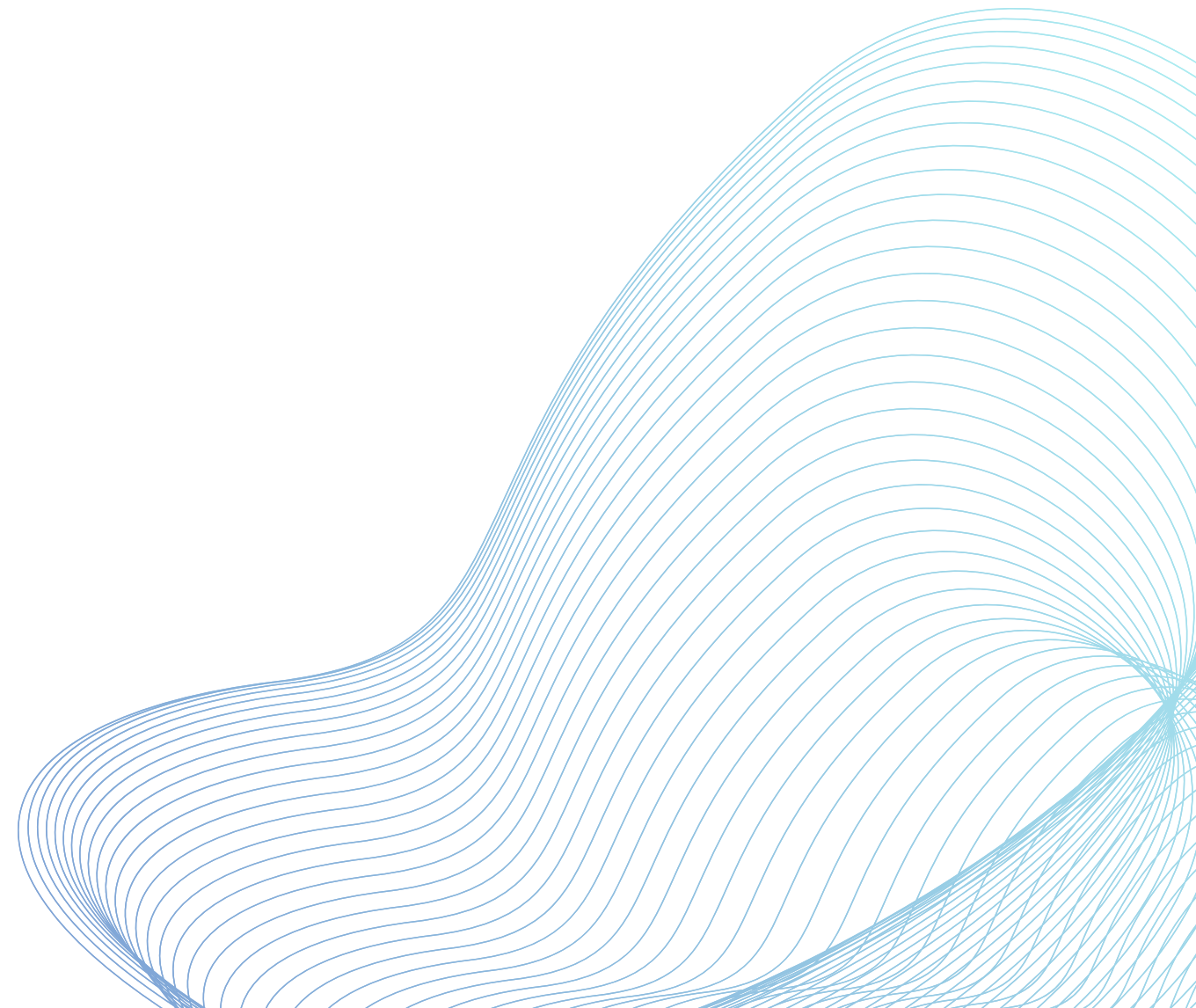
CENTRE DE RECHERCHE EN ETHIQUE

CONFLICT OF INTEREST DISCLOSURE

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Conflicts of interest: None



OBJECTIVES OF THE PRESENTATION

An invitation to think about craving through a particular framework that I will introduce, in order to guide a discussion of questions pertaining to clinical interactions and experience with patients.

The plan

1

Highlight how cravings can impact motivation and behaviour in addiction.

2

Describe a popular view of craving that focuses on the effects of psychoactive substances on dopamine production.

3

Explain an alternative framing of craving that integrates social, structural, and psychological factors that correlate with addiction.

4

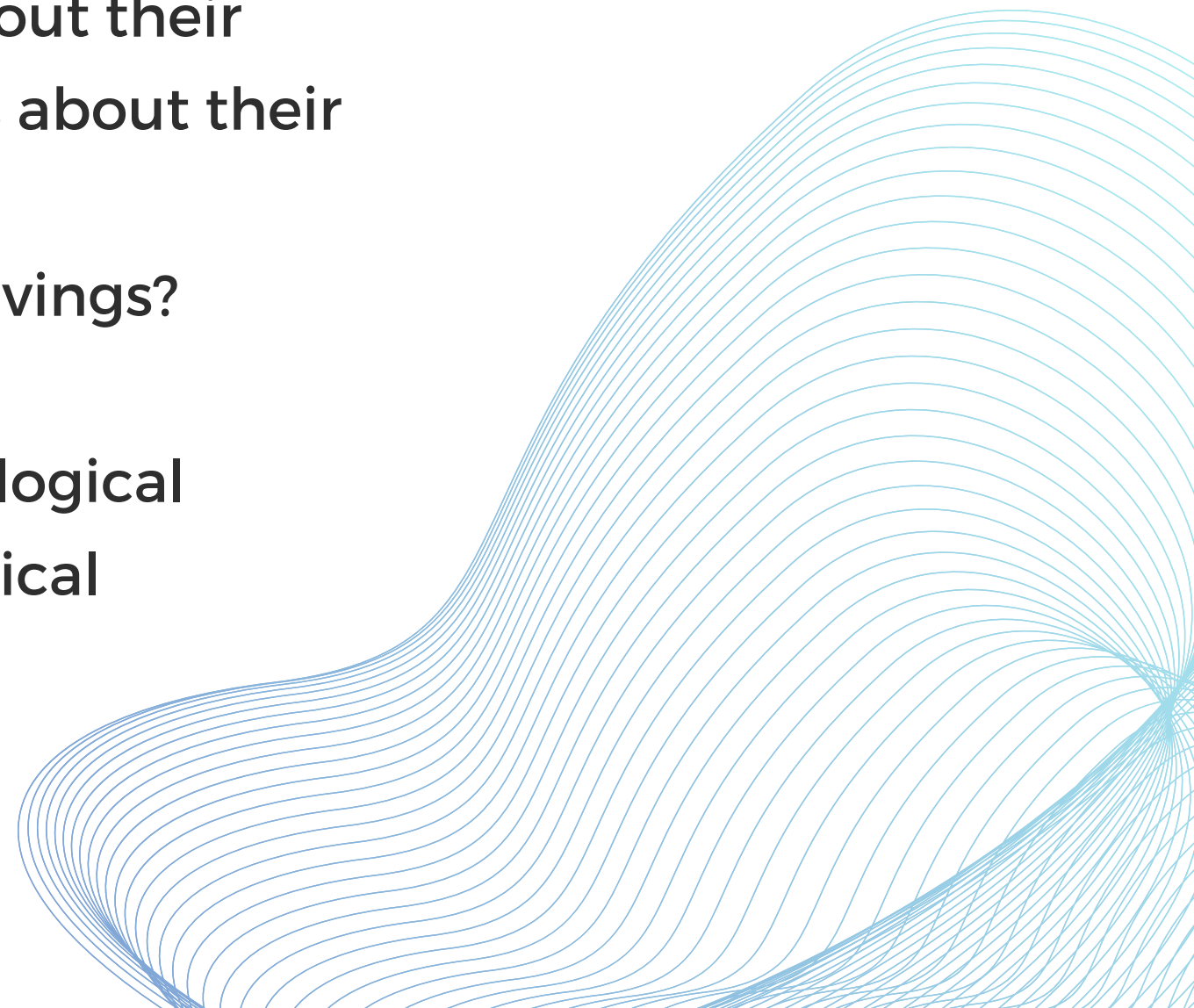
Discuss how different ways of understanding craving can impact how we think about addiction treatment and recovery.

SOME GUIDING QUESTIONS

The role of framing and expectation in investigating a phenomenon → trying out different lenses on the same issue

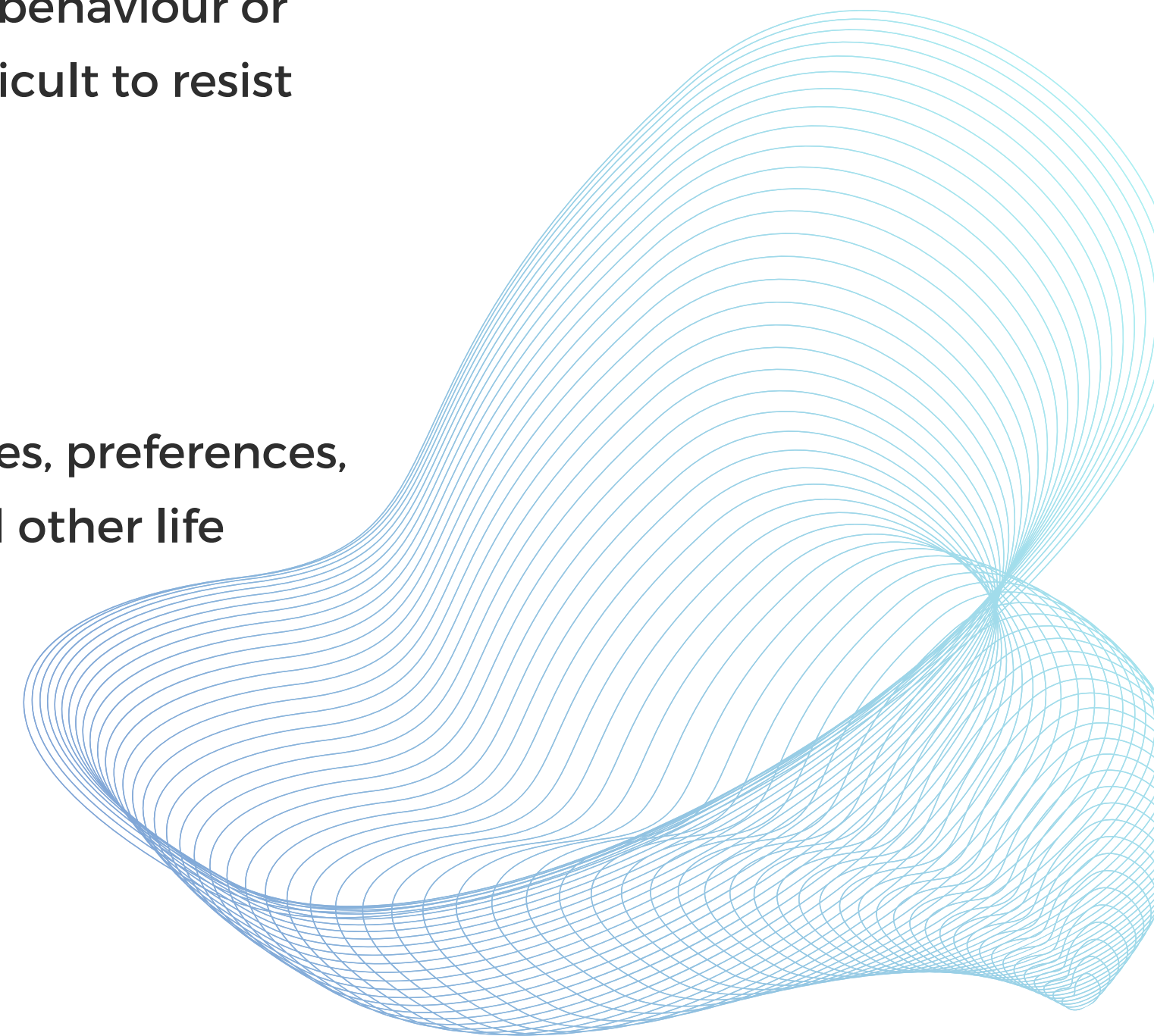
How might different framings of craving differently inform...

- how you listen to and interpret the testimony of your patients about their craving experiences? the kinds of questions you ask your patients about their cravings?
- the way you understand your patient's choices based on their cravings?
- how we understand the social triggers of cravings?
- how we think about craving management? the role of pharmacological treatments in managing cravings? what about non-pharmacological treatments?



INTRODUCING CRAVING

- **Craving:** an intense unwanted desire or urge to enact some behaviour or consume some substance, that is highly motivating and difficult to resist acting upon.
- Human beings crave all sorts of things
- Cravings are personal. They reflect our individual personalities, preferences, cultural location, values, identities, coping mechanisms, and other life circumstances.



CRAVING AND ADDICTION

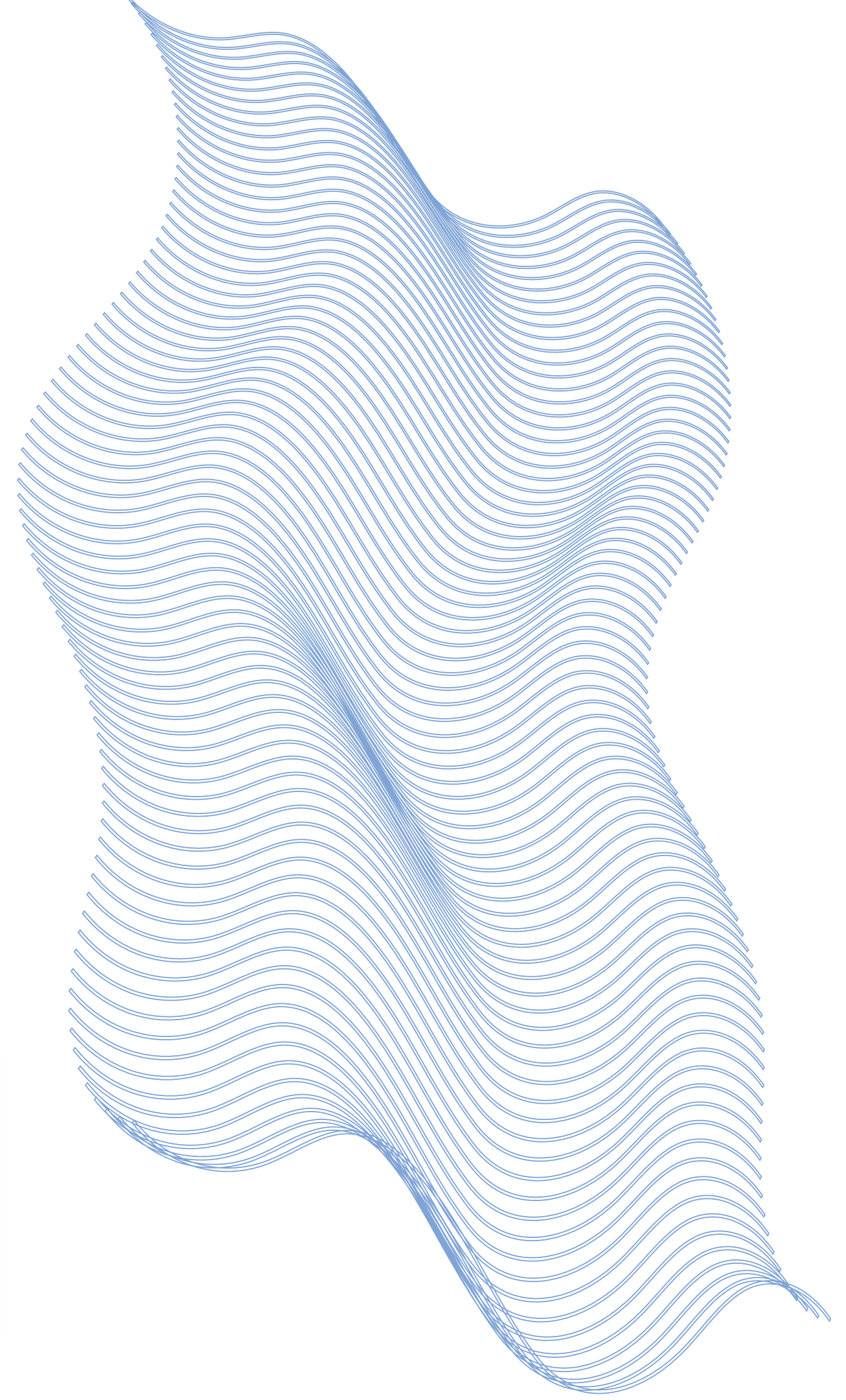
- Substance addictions seem to present the sharpest example of how cravings impact motivation and behaviour differently than other desires
- “...with chronic drug use the terms craving and wanting often become associated with a physiological need, hunger and strong intent to seek out the desired object, thereby representative of the more compulsive aspects of craving and drug seeking identified by addicted patients, but also seen in non-dependent binge and heavy social drug users.” (Sinha 2018, 307)

Chapter

Stress and Addiction

By *Rajita Sinha*

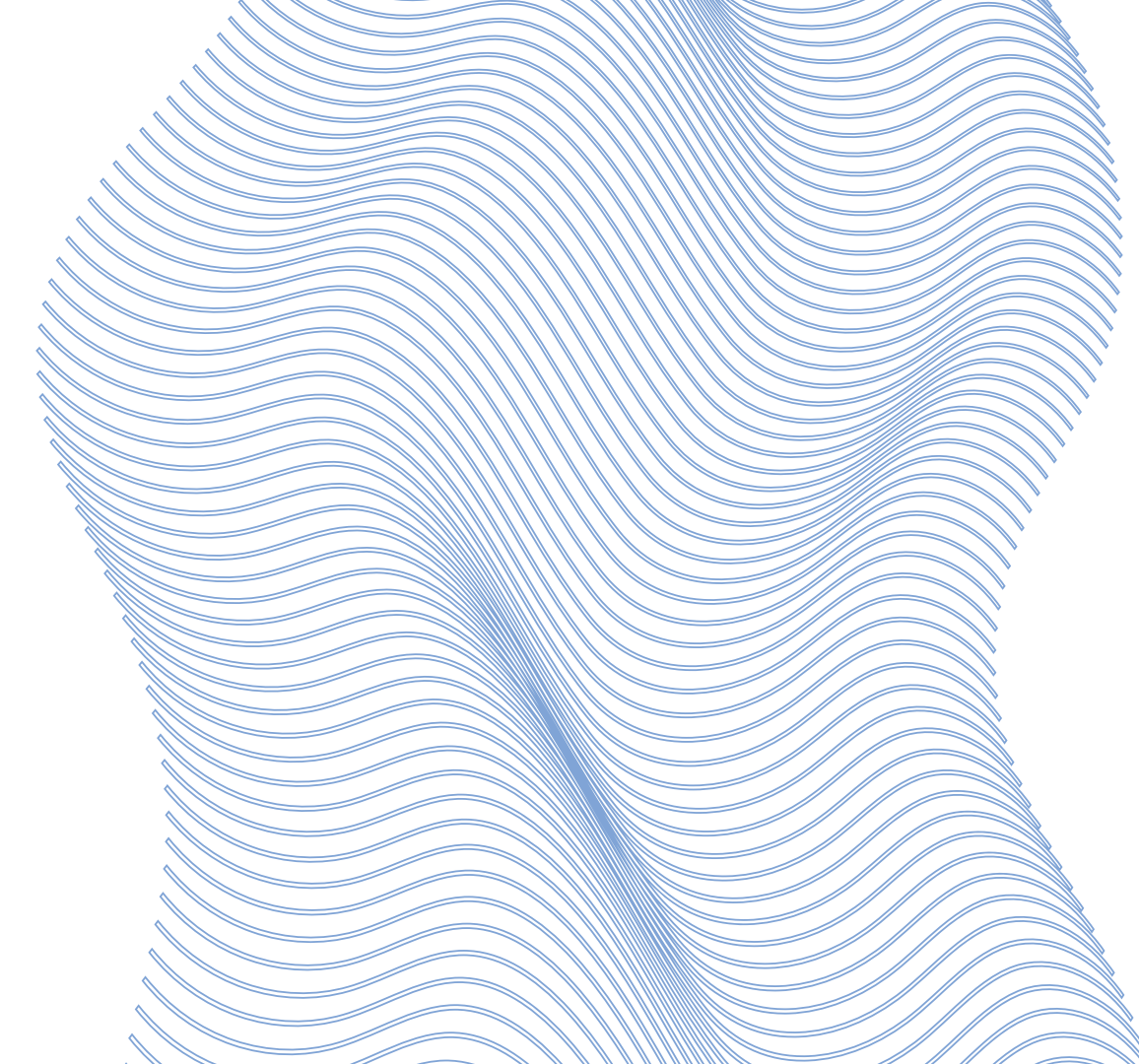
Book [The Routledge Handbook of Philosophy and Science of Addiction](#)



THE ROLE OF CRAVING IN ADDICTION .1

Craving is widely taken to be an important, if not central feature of addiction.

- A criterion in the DSM-5 SUD diagnosis, in the ‘impaired control’ grouping of symptoms
- Common across various substances
- Considered a major determinant of relapse, and a challenge in many people’s recovery
- Can be a crucial target for addiction treatment and intervention.



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 **ELSEVIER**

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Review

Ecological momentary assessment in the investigation of craving and substance use in daily life: A systematic review

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“in 92% of studies craving was linked to substance use and relapse”

THE ROLE OF CRAVING IN ADDICTION .2

- **When intense, overwhelming desires seem to drive substance use or addictive behaviour in particular moments, what is the nature of those desires, and why are they so hard to resist acting on?**
- How we answer these questions can guide different ways of thinking about how to respond to craving and support people struggling with cravings.



IF CRAVING IS A DESIRE, WHAT IS IT A DESIRE FOR? .1

- A lot of thinking about addictive craving is driven by a certain neuroscientific picture that explains cravings in terms of the effects of drugs on the production of dopamine in the brain
- On this view, the object of a craving is a drug itself or the pleasurable effects that getting high is expected to produce -- i.e., for a rewarding or hedonic stimuli

Substance Use Disorders

Features

The essential feature of a substance use disorder is a cluster of cognitive, behavioral, and physiological symptoms indicating that the individual continues using the substance despite significant substance-related problems. As seen in Table 1, the diagnosis of a substance use disorder can be applied to all 10 classes included in this chapter except caffeine. For certain classes some symptoms are less salient, and in a few instances not all symptoms apply (e.g., withdrawal symptoms are not specified for phencyclidine use disorder, other hallucinogen use disorder, or inhalant use disorder).

An important characteristic of substance use disorders is an underlying change in brain circuits that may persist beyond detoxification, particularly in individuals with severe disorders. The behavioral effects of these brain changes may be exhibited in the repeated relapses and intense drug craving when the individuals are exposed to drug-related stimuli. These persistent drug effects may benefit from long-term approaches to treatment.

DSM-5

THE 'CRAVING BRAIN' .1

- One of the most popular dopamine-based explanations of craving focuses on reward-learning
- Psychoactive substances cause artificially high bursts of dopamine to be released
 - → triggers cravings that overestimate the amount of reward that is expected
 - → long term effects of this learning process = environmental cues become associated with drug-taking
 - → cues start to trigger cravings
- Cues are person-specific

Reviews and Overviews

Addiction: A Disease of Learning and Memory

Steven E. Hyman, M.D.

If neurobiology is ultimately to contribute to the development of successful treatments for drug addiction, researchers must discover the molecular mechanisms by which drug-seeking behaviors are consolidated into compulsive use, the mechanisms that underlie the long persistence of relapse risk, and the mechanisms by which drug-associated cues come to control behavior. Evidence at the molecular, cellular, systems, behavioral, and computational levels of analysis is converging to suggest the view that addiction represents a pathological usurpation of the neural mechanisms of learning and memory that under normal circumstances serve to shape survival behaviors related to the pursuit of rewards and the cues that predict them. The author summarizes the converging evidence in this area and highlights key questions that remain.

(*Am J Psychiatry* 2005; 162:1414–1422)

Psychopharmacology (2007) 191:391–431
DOI 10.1007/s00213-006-0578-x

REVIEW

The debate over dopamine's role in reward: the case for incentive salience

Kent C. Berridge

Review Article | Published: 01 June 2004

Dopamine, learning and motivation

[Roy A. Wise](#)

[Nature Reviews Neuroscience](#) 5, 483–494 (2004) | [Cite this article](#)

EJN  EUROPEAN JOURNAL OF NEUROSCIENCE

European Journal of Neuroscience, Vol. 35, pp. 1124–1143, 2012

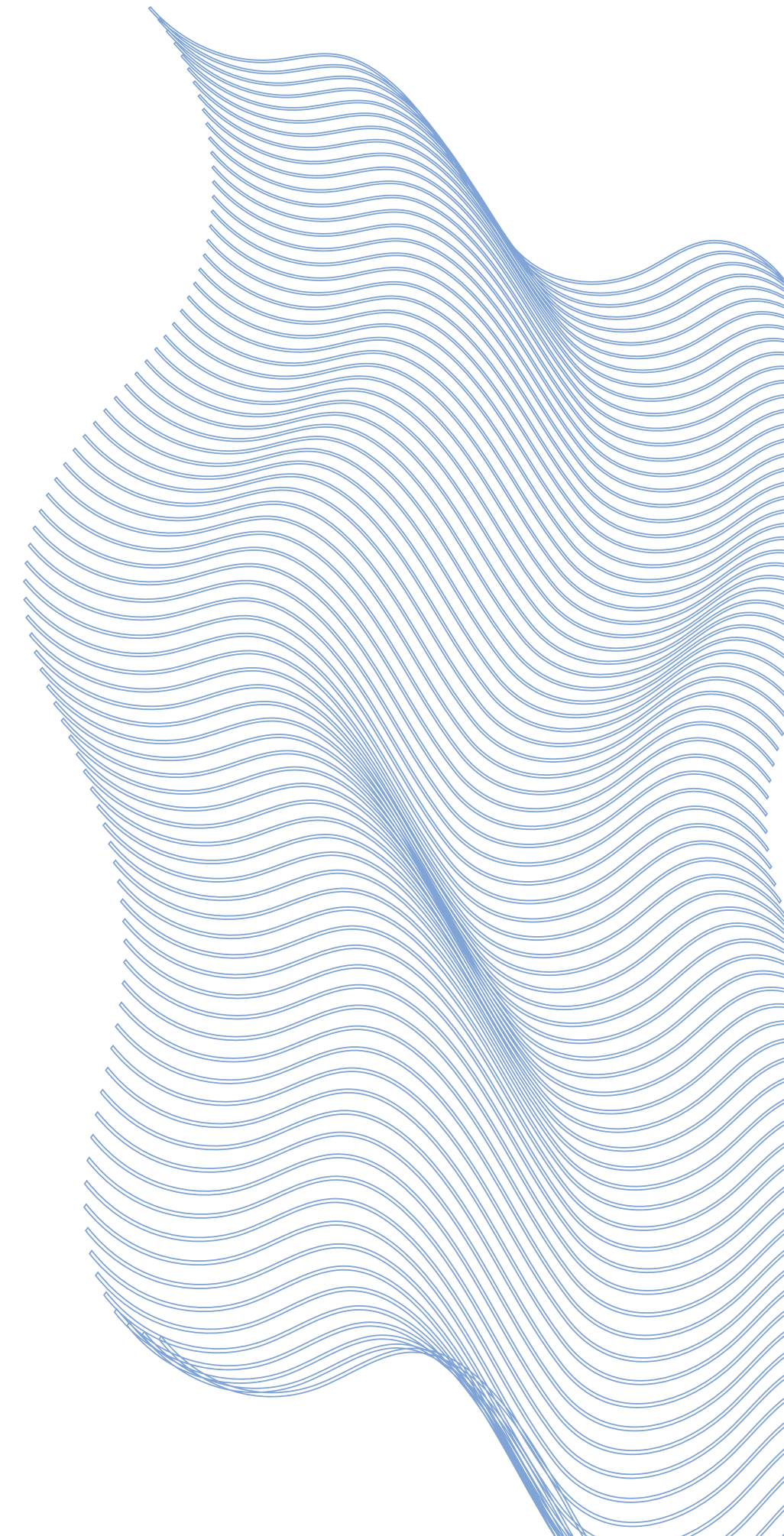
doi:10.1111/j.1460-9568.2012.07990.x

From prediction error to incentive salience: mesolimbic computation of reward motivation

Kent C. Berridge
Department of Psychology, University of Michigan, Ann Arbor, MI 48109-1043, USA

THE 'CRAVING BRAIN' .2

- The long-term effects of drugs on the brain's reward systems are one reason why addiction is considered to be a chronic, relapsing disorder (or neurobiological disease) by the orthodox medical conception of addiction
- On this view, addictive cravings are abnormally strong and dysfunctionally caused desires for the high produced by drug ingestion that come to dominate the decision-making system.



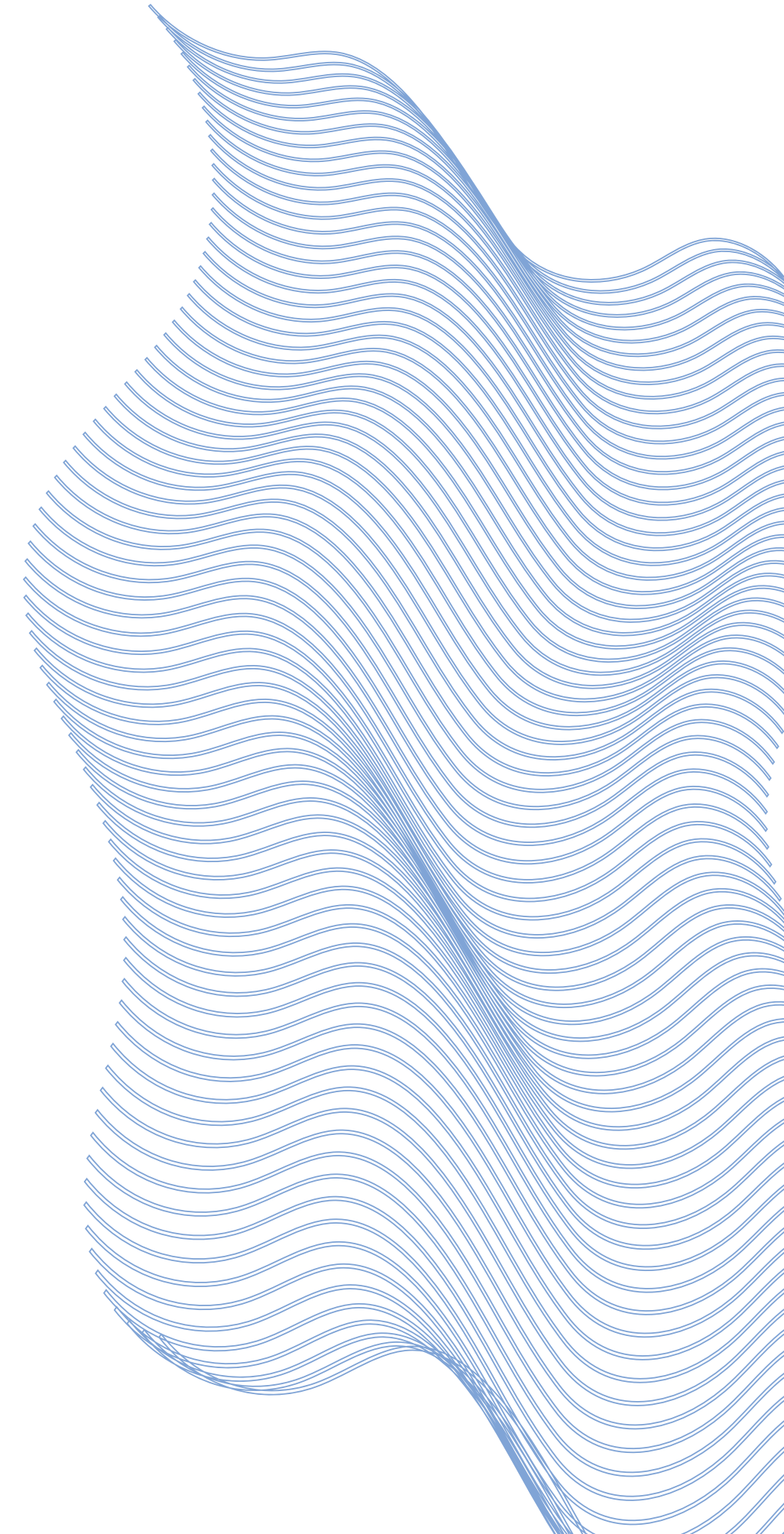
NEUROSCIENCE TELLS ONLY PART OF THE STORY .1

- Consider: addiction is not automatic, and not always chronic
- Biological factors alone do not provide a complete answer to these questions...
 - Why don't addictive cravings impact all people who use drugs equally?
 - Why over time do cravings seem to weaken or desist for many addicted people?



NEUROSCIENCE TELLS ONLY PART OF THE STORY .2

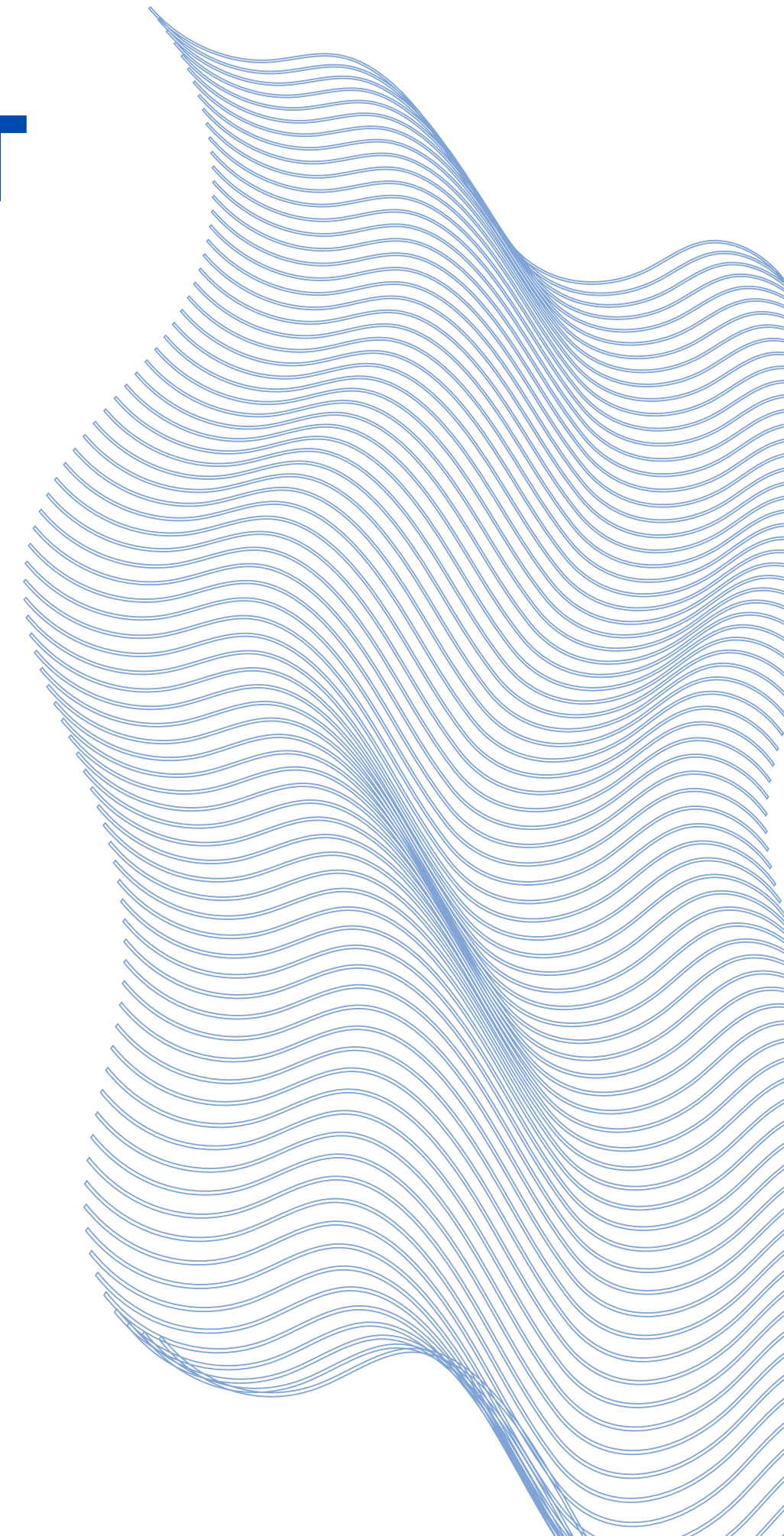
- To understand addictive craving through a more holistic and integrative lens, **we need to think about what cravings are for**, what purpose they serve in a person's life.
- A possible clue: the social, economic and psychological factors that addiction strongly correlates with



IF CRAVING IS A DESIRE, WHAT IS IT A DESIRE FOR? .2

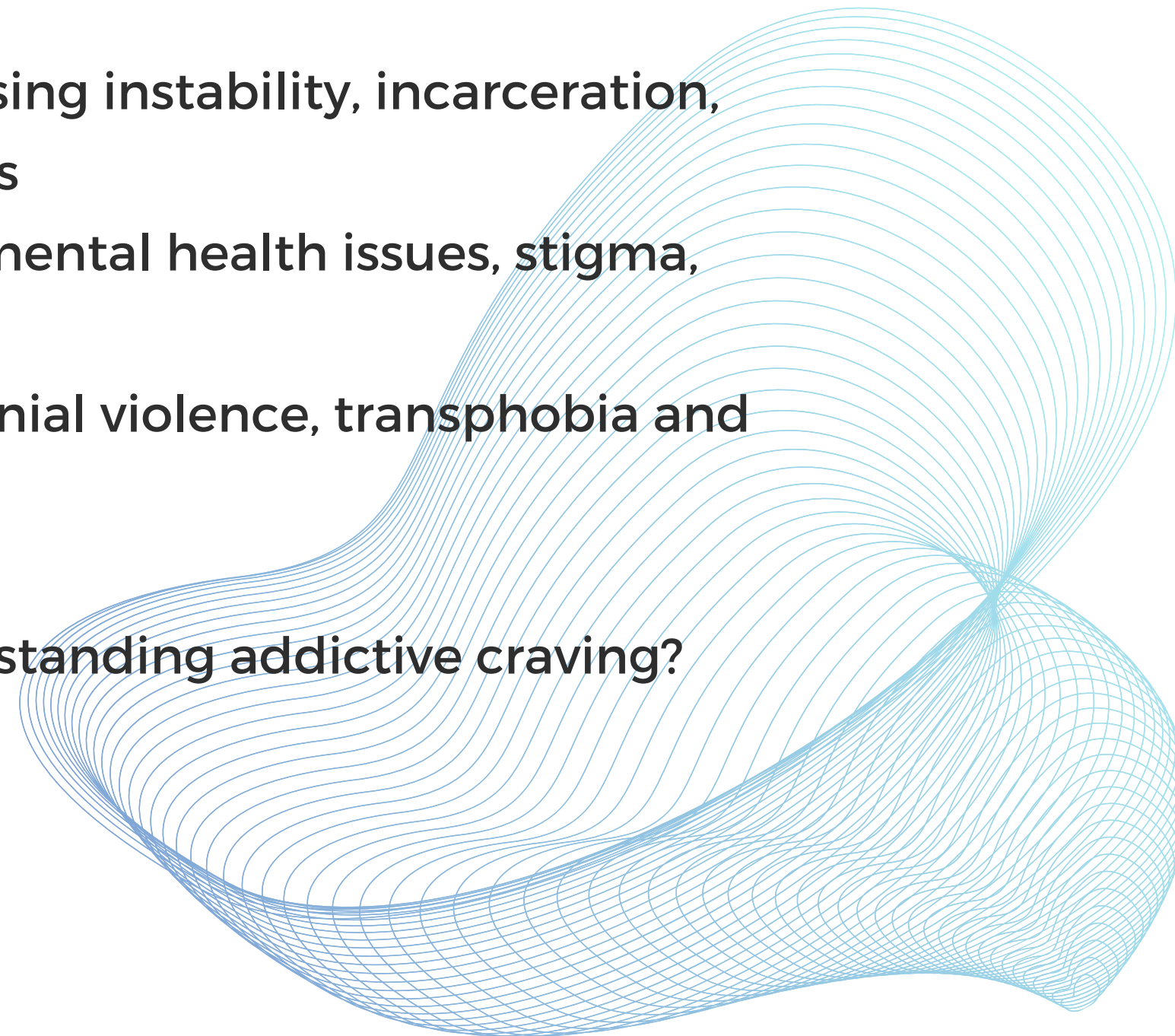
When we look at the social and psychological factors that correlate with addiction, a different framing of craving is made salient...

- Moments of craving in addiction, at least in some cases, are desires that seek out vital emotional experiences.
- These experiences are particularly valuable and simultaneously elusive under certain life conditions.
- This framing suggests a different kind of answer to the question of why cravings can be so hard to resist.



THE SOCIAL NATURE OF CRAVING

- Factors that are common correlates of addiction ...
 - Structural factors: include poverty, unemployment, housing instability, incarceration, lack of access to physical and mental healthcare services
 - Social factors: include adverse childhood experiences, mental health issues, stigma, prejudice, discrimination, social exclusion.
 - Many factors are both social and structural: such as colonial violence, transphobia and homophobia.
- **Question:** How might these factors contribute to our understanding addictive craving?

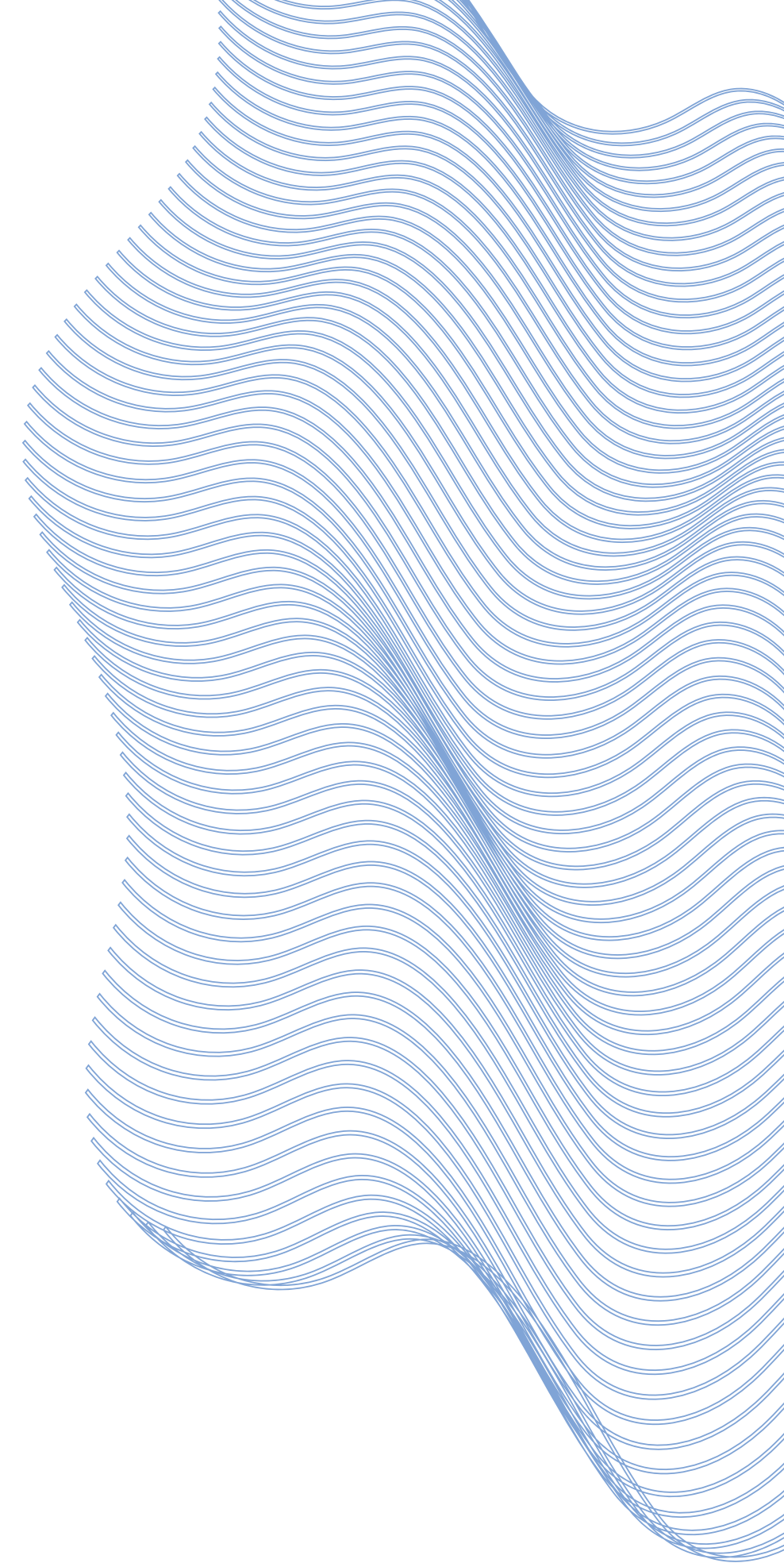


1. SOCIAL AND STRUCTURAL FACTORS INTERACT WITH PSYCHOLOGICAL NEEDS

Social and structural conditions...

- play a role in determining which of a person's psychological needs are being met.
- can propel addiction by producing or exacerbating unpleasant to unbearable emotional states that drugs can be used to alter

Challenging emotions and stress are well known craving triggers



CRAVINGS AS COPING MECHANISMS, NOT SIMPLE URGES

- Substance use has personal significance: to numb out, to feel alive, to feel accepted or socially connected, to be freed from mental or physical pain (including withdrawal symptoms), to not feel anxious, to feel included, and so on.
- These emotional experiences themselves can become the objects of the desires driving addiction -- drugs are a vehicle to satisfy them, at least temporarily.

CRAVINGS AS COPING MECHANISMS, NOT SIMPLE URGES

What if

- **A craving for a cigarette can be a desire for control and order in a stressful environment.**
- **An alcohol craving can aim at feeling comforted and safe.**
- **A craving for ketamine can be a desire to feel relaxed and relieved from worries.**
- **In severe addiction, a craving might aim at a feeling of complete self-annihilation, to be freed, no matter the cost, from the painful conditions of daily life.**

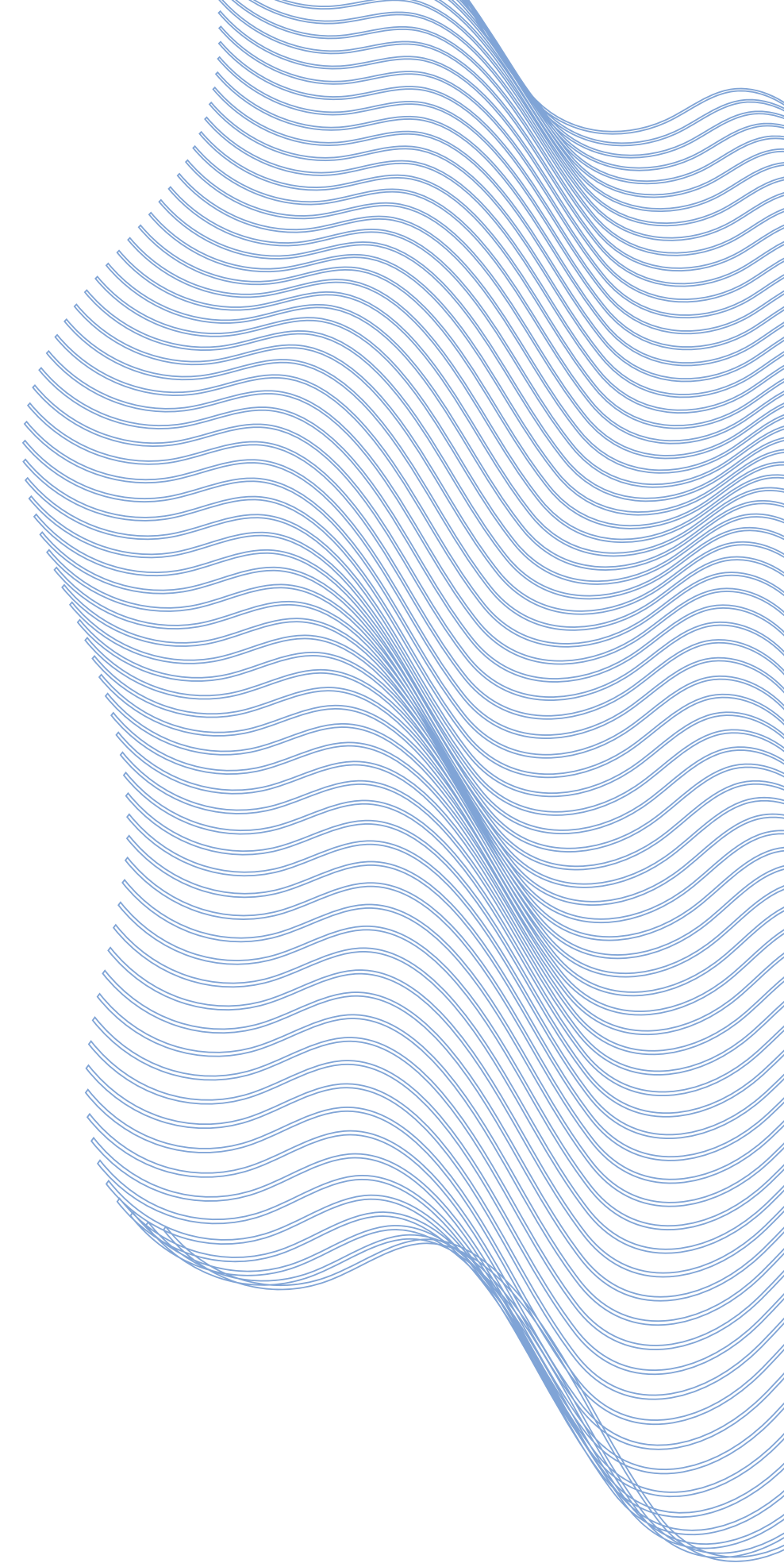


2. SOCIAL AND STRUCTURAL FACTORS LIMIT OPPORTUNITIES FOR ADDRESSING PSYCHOLOGICAL NEEDS

- Drug use allows valuable control of psychological states when other means of addressing distressing conditions are hard to access or not accessible.
- Drugs are an (often non-ideal but available) option for many people who experience disproportionate distress and are in various ways marginalized from social and institutional resources and supports.
- Consider: correlation of mental illness symptoms
- Short term emotional gains, and long term costs

CRAVINGS IN CONTEXT

- The motivational power of cravings isn't only determined by how drugs affect the dopaminergic system, but also by the social and structural conditions that inform the objects of these desires in an individual's life.
- From this perspective, **cravings are responsive to the external environment**: a change in those external conditions can reduce craving episodes or make them easier to resist by deflating the significant emotional role that drugs are playing instrumentally.



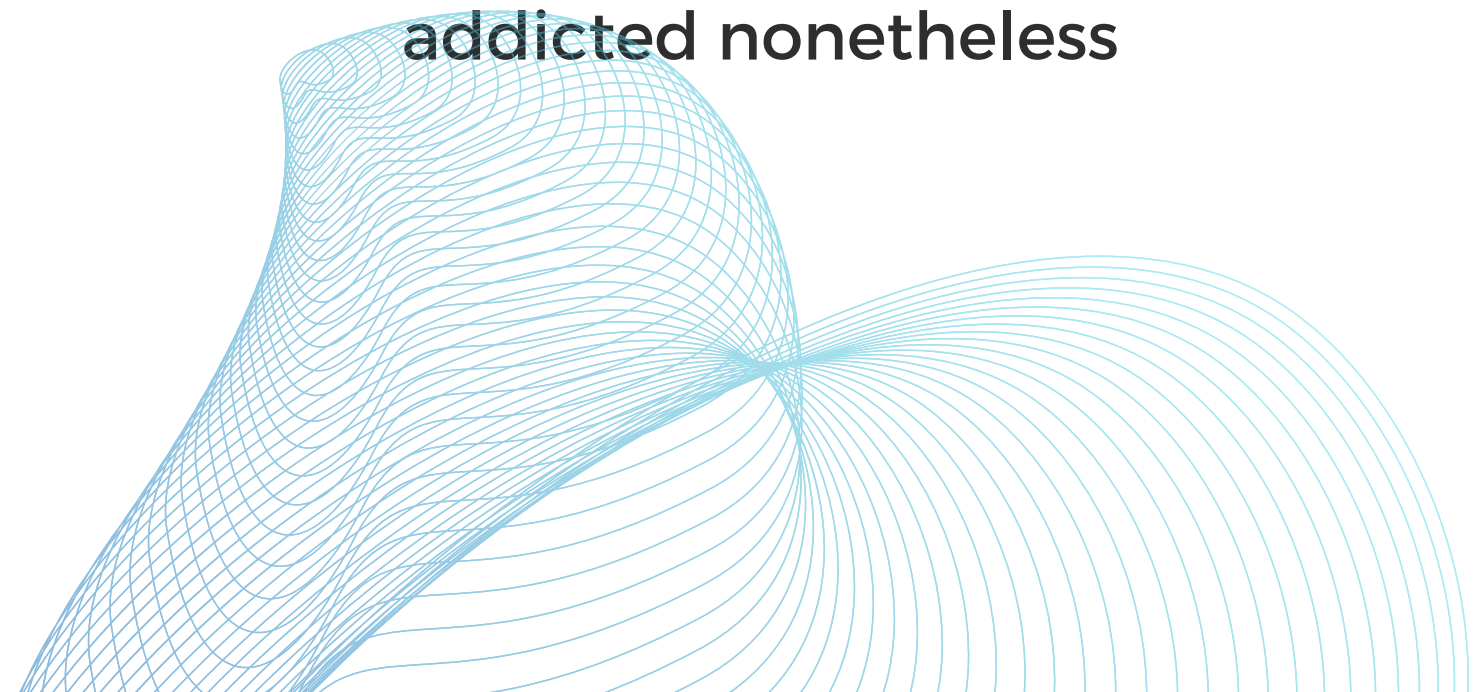
WHAT ABOUT GENETICS?

Genetics → often thought to be a major factor in addiction.

- Many people with a genetic predisposition to addiction never become addicted
- Environmental factors play an important role in controlling the expression of genes
- Genetics aren't always at issue; many people without a family history of addiction do end up addicted nonetheless

→ Even where heritability is at play, this leaves open how genetics influence the unequal distribution of addictive cravings.

- A social framing of craving is not incompatible with evidence that genetics are a risk factor for addiction.



THREE TAKEAWAYS

What follows from viewing addictive craving through a social and structural lens?

1 How we study craving

2 The wisdom of cravings

3 How we think about treatment

HOW WE STUDY CRAVING

- The popular dopamine-based framing of craving on its own seems unequipped to answer questions about why the desires driving addiction in key moments manifest unequally across individuals, and why they are so hard to resist

THE WISDOM OF CRAVINGS

- Cravings are not only simple, visceral urges or control forces aimed at drugs or the immediate effects of intoxication – cravings are richer, more cultural, cognitive, and phenomenologically complex than that.
- Cravings, in addiction and beyond, are sensitive to emotional and psychological needs and values, and this helps to explain why they are so motivating.

THE WISDOM OF CRAVINGS

Cravings in the context of addiction and beyond...

Next time you find yourself having a craving, reflect on how you experience it.

- Is it your brain anticipating a spike in dopamine, a flood of pleasure? This may be part of the story.
- But does it also mean something more to you, is it serving some greater purpose?
- And might how you answer that question change how you (can) respond to the craving?

HOW WE THINK ABOUT TREATMENT

- Framing the motivational power of cravings as primarily the result of how drugs affect the brain may limit our perspective on the most promising avenues for treatment to pharmacological interventions and therapies focused on individual strategies for coping with cravings.
- We should not disparage any approach to treatment or intervention that helps addicted people, but given insights from the social framing of craving, we need to be realistic about the possible limits of therapies focused on individual self-control if a person's environment remains largely unchanged.

HOW WE THINK ABOUT TREATMENT

- Shifting to a more holistic lens to understand craving may add value by highlighting treatment approaches that integrate other levels of the phenomenon.
- A more socially integrated framing of craving affirms that identifying and addressing adverse psychosocial conditions may be a key element in the fight against cravings, and promotes the perspective that addiction recovery isn't just a personal health journey, but a collective struggle for social transformation.

IN SUM

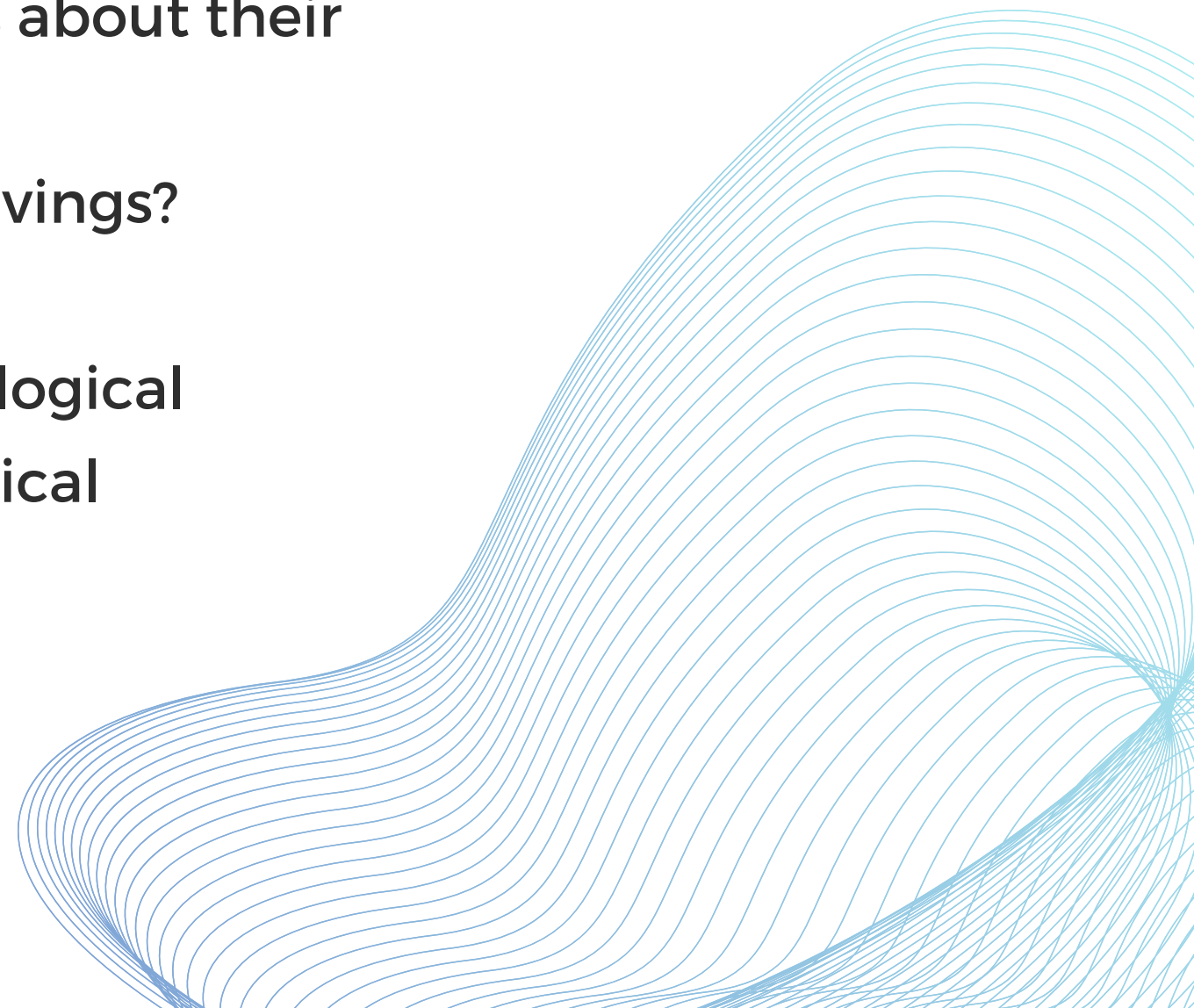
- Craving is importantly linked to substance use and relapse
- **Question:** in key moments in addiction when someone is unable to resist the intense craving to engage in their addiction, what is the nature of that desire, and why is it so hard to resist?
- We can answer this question by looking at craving through different lenses.
 - Neuro-level framings?
 - Psychosocial-level framings?
- It's likely that a lot of interventions that we need to address cravings are going to work at the level of the social world, so it's helpful to try to understand how that level is implicated in the phenomenon of craving as something we want to treat

QUESTIONS AND DISCUSSION

Some initial guiding questions...

How might the social framing of craving inform...

- how you listen to and interpret the testimony of your patients about their craving experiences? the kinds of questions you ask your patients about their cravings?
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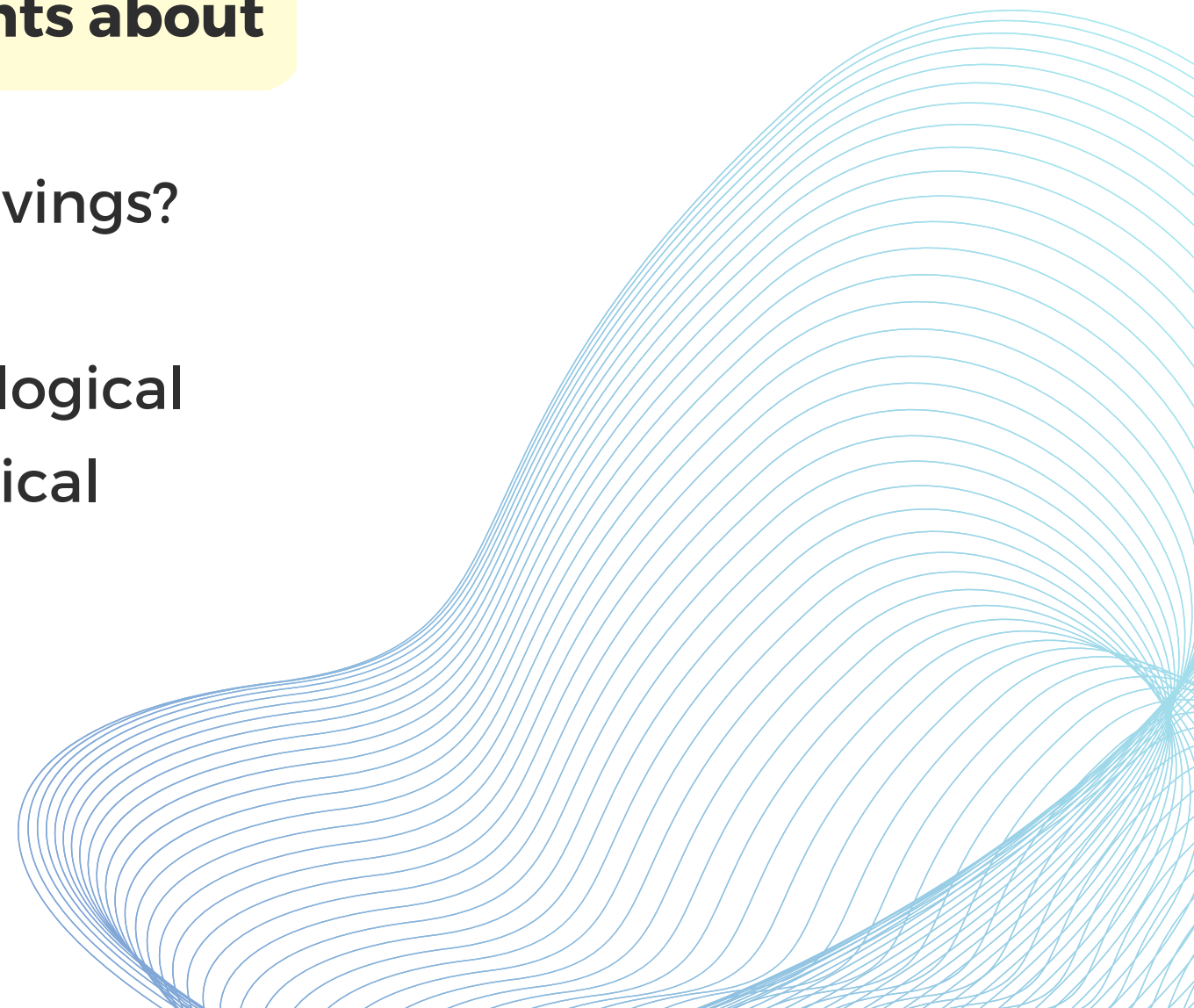


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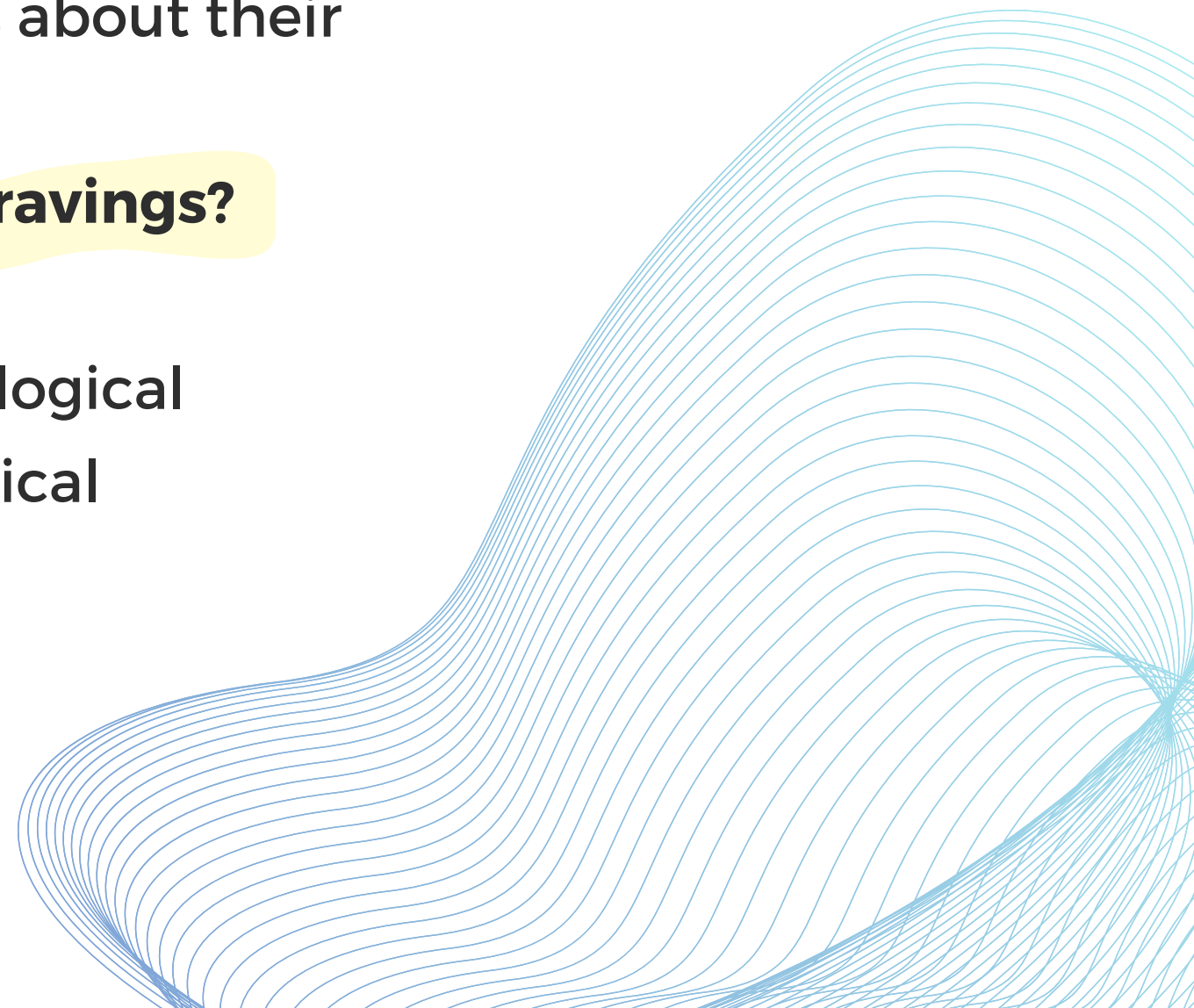


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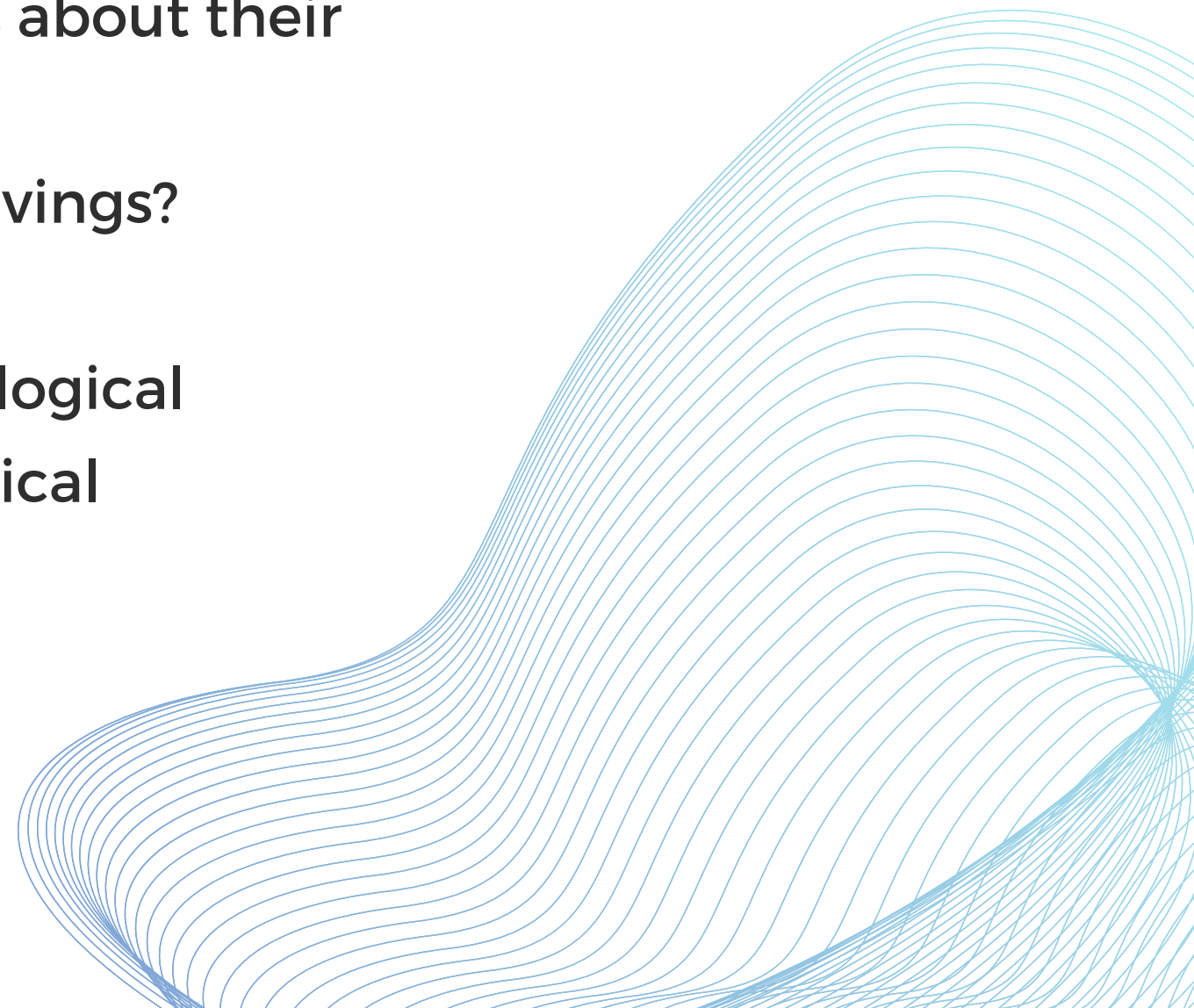


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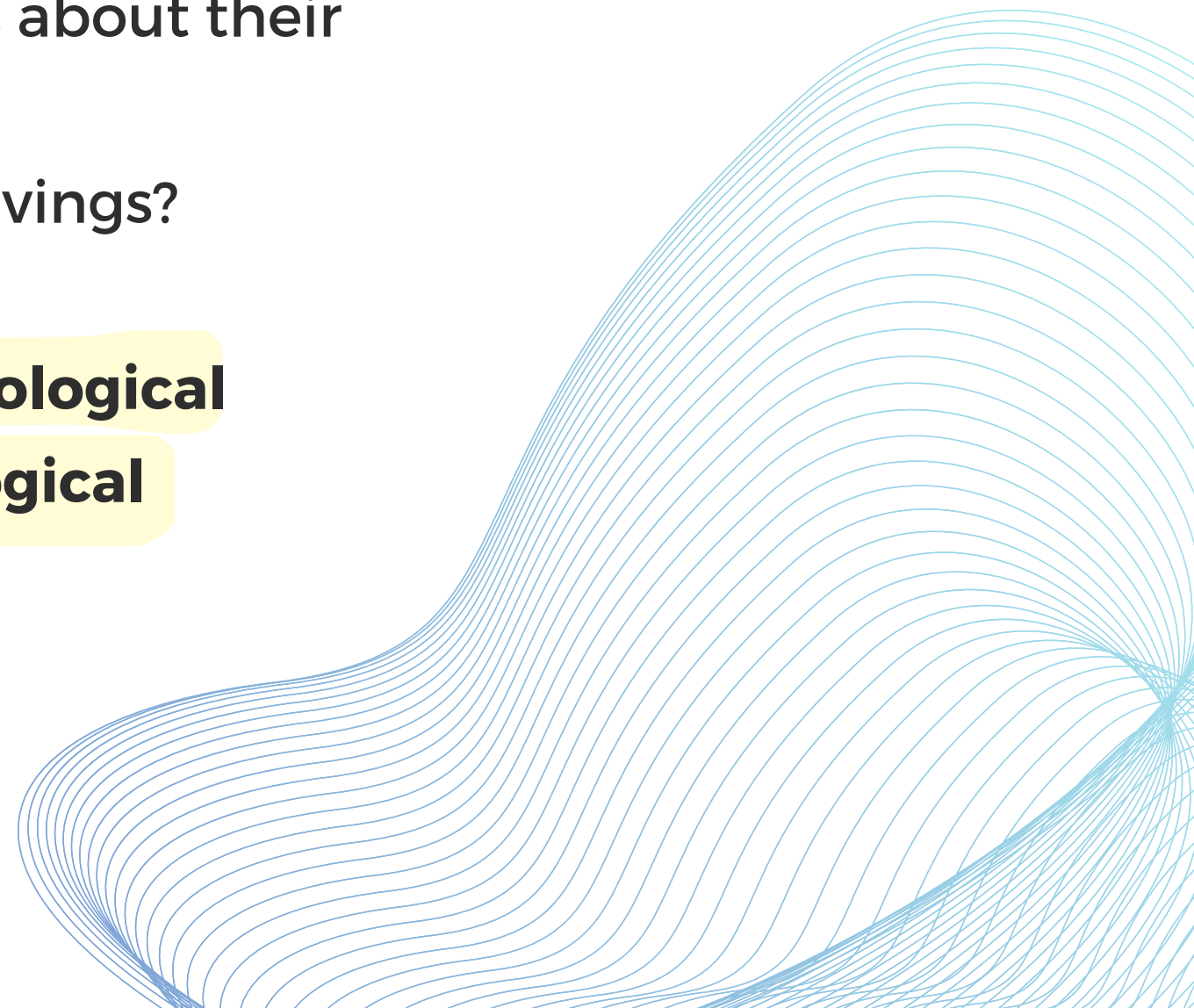


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OTHER QUESTIONS AND DISCUSSION?





MERCI BEAUCOUP!

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