

Talking to Tulpas: Sentient Imaginary Friends, the Social Mind, and Implications for Culture, Cognition, and Mental Health Research.

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Unpublished summary of preliminary findings .

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Scientific authors, pleased cite the forthcoming published version.

May be cited in the press as an “ongoing study”.

Overview.

After 6 months of participant observation online, 166 Tulpamancers from 17 countries were recruited, interviewed and tested in a semi-structured survey by Dr Samuel Veissière, an anthropologist working at McGill University's Division of Transcultural Psychiatry. Veissière is now putting together a team of cognitive scientists (from such disciplines as psychiatry, philosophy, neuroscience and psychology) for an ongoing ethnographic, cognitive, behavioural, and neurological study of Tulpamancy. Findings from Phases 1 and 2 of the preliminary research are summarized below.

Rationale.

Tulpamancy is a new cultural phenomenon that has yet to be studied scientifically and discussed in a peer-reviewed forum. Psychological anthropologist Tanya Lurhman (2013) mentioned the community in a New York Times Op Ed, and offered preliminary comments about links with the Cognitive Science of Religion (CSR), in which synesthetic religious experiences are understood as evolutionary 'by-products', or maladaptive properties of mind (Boyer, 2000; Barrett & Boyer). In contrast with the evolutionary literature, however, Luhrmann's (2012) work with evangelical Christian has suggested that conjuring synesthetically-experienced 'supernatural' agents through meditative prayer can carry strong therapeutic implications. She has showed, further, that the practice requires a *proclivity for* and *training in* absorption, in addition to a broader socio-cultural context that is permissive of and conducive to such experiences (Luhrmann, 2012; Lurhman et al, 2010). Building on the therapeutic hypothesis, she has written extensively on the

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positive implications (emotional, cognitive, social) of absorption and mindful “prayer”, and the possibility of alleviating psychotic symptoms through similar practices. Her arguments on ‘living with voices’ (2012; 2013) have called for a return to the ‘accepting voices’ approach to schizophrenia treatment proposed by Romme (1993) and the alternative Hearing Voices Network. In her NYT Op Ed, Luhrmann reported the overwhelmingly positive emotional and social experience of Tulpamancers after picking up the practice, and speculated on possible links with the treatment of psychosis.

2) *Empirical gaps in the cultural neuroscience of trance states.*

In addition to exploring the potential of mindfulness and the education of attention (Ingold, 1997) for mental health research and practice, studying tulpamancy will help fill a gap in the literature on non-normative mental states. (Seligman & Kirmayer, 2008). Dissociation, false memories, trance, and possession states have traditionally been examined in both anthropology and psychiatry, but with different approaches and assumptions. Anthropology has produced a wide body of literature on the high transcultural incidence of trance, but has tended to focus on discursive and ritualized dimensions of the experience without theorizing its neurocognitive mechanisms (*ibid*) (see Lambek, Crapanzano, Burdick, Taussig, etc.) . Psychological and psychiatric studies, in turn, have acknowledged that trance occurs in the contexts of a) religious ritual, b) drug consumption, c) trauma and post-trauma, d) pathology, and e) normal cognition (daydreaming, flow, absorption, etc.). Non-pathological, non-traumatically-induced ‘normal’ trance enabled through social narratives, metaphors and practice, however, has remained under-examined in the medical literature (Seligman & Kirmayer, 2008).

Tulpamancy, as we will argue, harnesses normal mental properties for absorption and synesthesia within a social context that is a) emergent, b) non-religious, and c) not characterized by trauma. Evidence gathered from public tulpamancy information suggests that the majority of TpMs subscribe to non-metaphysical, monist (folk)neuro-scientific ontological commitments and explain their tulpas as psychological phenomena. While many report significant improvement on a series of symptoms ranging from depression and anxiety to obsessive behavior, there is not enough evidence so far to suggest that the phenomenon’s etiology can be linked to individual distress for most practitioners.

It remains clear to the researchers that tulpamancy provides a fascinating context for the scientific observation of a) emergent epidemics of ideas leading non-pathological synesthetic ‘enskillment’ (Ingold), b) potentially therapeutic, non-religious mindfulness, and c) under-theorized properties of mind and sociality.

Our aim is to fill the gap in this literature by examining tulpamancy from the perspective of cultural neuroscience. This will enable us to shed light on under-examined socio-neuro-cognitive processes by proceeding “from narrative to metaphor through mechanism and back” (Seligman & Kirmayer, 2008).

What is tulpamancy?

Tulpamancy, or tulpaforcing, is a recent social phenomenon that grew from increasingly popular forums and discussion platforms on the Internet. The term Tulpa has its roots in Tibetan Buddhist practice where it referred to intelligent, or sentient beings imagined into existence through mental concentration. Based on these practices and a diverse range of visualization and meditation techniques, modern tulpamancers ‘force’ – that is to say imagine, design, and bring to mental existence – intelligent companions (or Tulpas) who are said to experience and display full subjectivity, selfhood, and individual personality traits. Tulpas most often assume human form, but many are imagined within a continuum of humanoid variations with gender-fluid, gender-neutral, or pan-ethnic traits. Fandom culture drawn from fantasy-oriented genres also frequently prompts the forcing of non-human Tulpas such as elves, ponies, or ponies.

How does Tulpamancy work?

The best explanations come from the Cognitive Science of Religion (CSR), where perceiving/imagining non-physical agents (like spirits, gods, or ‘voices’) is understood as a normal, but possibly maladaptive cognitive function called ‘agent hyper-detection’. This is why we see faces in the clouds, imagine boogymen under our beds, or talk to imaginary friends – or why supernatural agents ‘exist’ in all cultures. Our intuitive psychology, or Theory of Mind – our ability to put ourselves in the perspective of somebody else – also prompts us to anthropomorphize the world around us, and infer agency and human-like mental processes to entities that don’t have minds. This explains why tulpamancy is both ‘normal’, and possible.

In anthropology, trance, possession, and dissociative states have been documented in most cultures in the context of religious ritual. The medical and neuro-scientific literature, in turn, has shown how similar mental states can occur as coping mechanisms in the context of trauma.

More clues on the neuro-cognitive mechanisms underpinning dissociative states are found in psychology and psychiatry. In this perspective, Tulpamancy can be explained as a hypnotically-induced dissociative experience that harnesses a mental phenomenon called *absorption* – or the ability to focus intensely on one’s mental imagery. Absorption is theorized as a personality trait that correlates highly with hypnotisability.

Tulpamancy is fascinating on several counts, because it can direct our investigation of non-normative states of consciousness beyond the framework of experiences induced by religious ritual (anthropology), trauma (psychiatry), or drugs. This takes us to the

question of natural proclivity for non-normative mental states, and the emerging socio-cultural contexts that make them possible.

How ‘real’ are Tulpas to their hosts?

CSR has also shown that belief in super-natural agents is always counter-intuitive – or in other words, presents a contradiction with our everyday perception and understanding of the world around us. ‘Successful’ religious cosmologies are accepted, recalled and passed on when they are *minimally counter-intuitive* (as is the case with a god or spirit: a minimally counter-intuitive variation on the concept of ‘person’ [understood as having a mind] without a body. See Pascal Boyer, *Religion Explained*). While Tulpas are primarily understood as psychological (and not super-natural) phenomena by their hosts, their non-natural ‘presence’ is still difficult to conjure and ‘believe in’. We have seen that non-natural agents may be inevitable features of human perception. Because their existence is unverifiable collectively, however, they are always ‘difficult’ to fully integrate into every-day perceptual experiences. As such, they are even more difficult to experience with our senses. In spiritual contexts, some believers *do* hear their god’s voice, but recent research (Tanya Luhrman – *When God Talks Back*) has shown that it takes specific talent and lots of learning and training in meditative practice to reach synesthetic experiences (where the experience *feels* real through our sense modalities).

We have seen that in order to be successfully experienced, Tulpamancy requires hypnotic ‘rewiring’ of conscious, logical, and counter-intuitive narratives into fully intuitive mechanisms. The active imagination (or indeed *creation*) of infra-natural agents, as such, is very hard to achieve.

Of 73 Tulpamancers tested on this question, only 37% reported that their Tulpas felt “as real as a physical person”, while 50.6 % described their mental companions as “somewhat real - distinct from physical persons, but distinct from [their] own thoughts”.

The median length of Tulpamancy experience for these respondents was one year. Tulpamancers with 2+ years of experience reported higher degrees of synesthetic experience, including 4.6% claiming “extremely real” phenomena, where Tulpas were “indistinguishable from any other agent or person” and heard “outside” their hosts’ heads.

Are Tulpas only experienced as “voices?”

No. Tulpamancers also report (in order of frequency), tactile, sexual (*controversial in the community – often deemed taboo), visual, and olfactory experiences. “Raw thought”, “intuitive thinking”, “speaking with no words” and “communicating with images, feelings and music” are also reported along with other non-verbal, non mind-voiced

forms of interaction. In addition to imagined agents, tulpamancers' mental constructs include spaces for tulpa-host interaction usually termed “mindscape” or “wonderland”.

How do tulpamancers understand the phenomenon?

The community is primarily divided between the psychological and metaphysical schools of thought. In the psychological community, neuroscience (and/or folk neuroscience) is the explanation of choice. Tulpas are understood as mental constructs that have achieved sentience. The metaphysical explanation holds that Tulpas are agents of supernatural origins and nature that exist outside the hosts' minds, and who come to communicate with them. Of 118 respondents queried on the question, 76.5% identified with the psychological explanation, 8.5% with the metaphysical, and 14% with a variety of “other” explanations, such as a mixture of psychological and metaphysical.

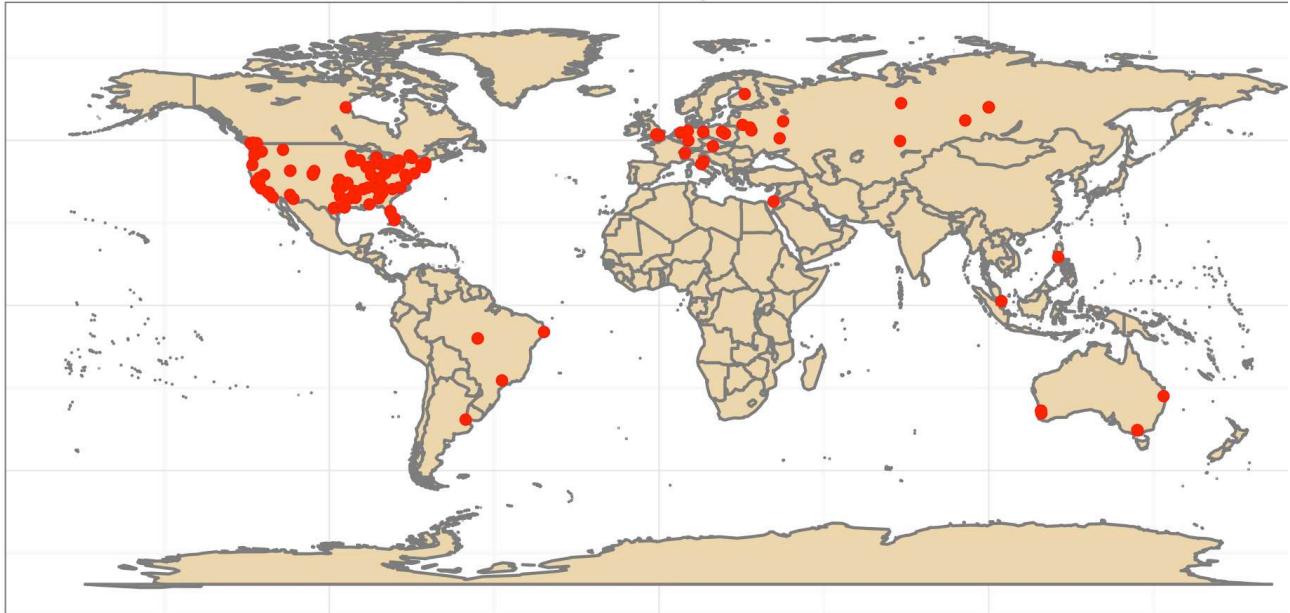
Who and where are Tulpamancers?

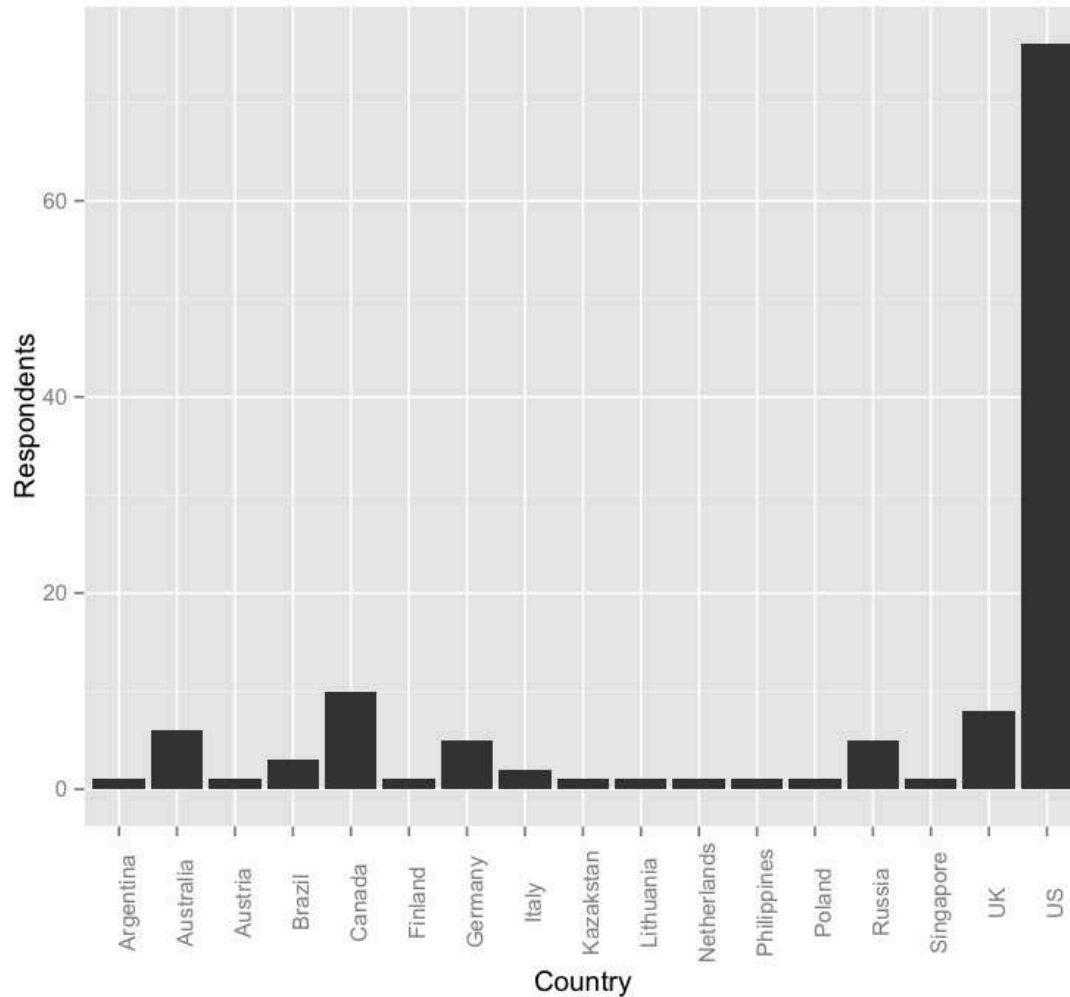
The age range of interviewed Tulpamancers was 14 to 34 years, with most falling in the 19 to 23 range. The male to female ratio is approximately 75/25 (male/female), though up to 10% identify as gender-fluid, and explore further ‘creative’ gender and ethnic variations through their humanoid Tulpas.

Tulpamancers are predominantly white, middle to upper-middle class urban youth. Of 141 respondents, only 2 described themselves as “African American”, with two more reporting being “half black”. 4 respondents described themselves as Asian, 4 more as “half Asian”, and one a “one quarter Asian”. All others describe themselves as “white”, or by a variety of euro-American ethnic labels (Irish, German, Russian, etc.). One identified a “Siberian”. Most are undergraduate university students, but up to a third are fully employed. The IT field is the most commonly reported sector of employment.

The majority of Tulpamancers are located in urban areas in the US, Canada, the UK, Australia, Western Europe and Russia. The breakdown is as follows:

Tulpamancers by Geolocation





How do tulpamancers interact?

Most tulpamancers interact online and do not meet in person. Reddit is the most popular forum for discussion, guides, FAQs and debates, followed by tulpa.info, 4chan, IRC, and Tumblr.

The only known group of tulpamancers to meet in person are in Moscow and Omsk, where weekly gatherings are held with skype-conferencing capacities for other Russian-speaking tulpamancers located outside these locations. English and Russian seem to be the two dominant languages for the diffusion of Tulpa culture.

How many tulpamancers are there?

The reddit forum has 6000+ members, but less than 200 active posters. The Russian social networking site Vkontakte also boasts 6000+ members, with a smaller ratio of active posters. Actual numbers are difficult to estimate. There may be tulpamancers who no longer use online platform, and many more who practice Tulpa-like phenomena without knowledge of, or allegiance to the community.

What gave rise to Tulpamancy?

This is a complex question (see full paper for discussion). On the one hand, human consciousness is the dual product of biological and sociocultural evolution (Tomasello). Intentionality, perspective-taking, sentience, and selfhood, and indeed “Mind” itself are only possible through collective mediation and the sharing of symbols, ritual, and practice. As such, human minds, in ‘typical’ and ‘pathological’ functions, always tend toward intersubjectivity and connections with other people. This capacity may be reinforced and re-spurred in modern social contexts characterized by fragmentation and individualism, particularly in certain demographic niches where it is becoming more difficult to form meaningful social bonds.

The Internet provides a useful matrix for the viral spread of neo-social activities like Tulpamancy. It is also the social medium of choice for lonelier, young, euroamerican upper middleclass individuals.

What are the psychological “profiles” and effects of Tulpamancy?

The most common profile is one of a highly cerebral, imaginative, highly articulate upper-middle class, formally educated person with many consistently pursued interests, talents and hobbies, but limited channels of physical social interaction.

Average Tulpamancers (AvTm) are confident about their talents, but are quite modest and socially shy. They possess – or have cultivated – a high propensity for concentration, absorption, hypnotisability, and non-psychotic synaesthesia. Their limited social life and social anxieties, however, are *not* correlated with impaired levels of empathy and interest in other people. AvTm score average or above-average on empathy and Theory of Mind tests, indicating that their ability to relate to other humans is either optimal or enhanced.

The profile of tulpamancers is consistent with common traits found in the young, euroamerican upper middleclass demographic niche. *Loneliness* is overwhelmingly reported as a common factor for creating Tulpas, who are described as “most loyal” and “perfect” kinds of companions. Of 73 tulpamancers tested, the majority scored higher than average on the shyness scale, and lower than average on the sociability scale for comparable population sets. Many respondents reported some degrees of social anxiety.

Their ‘happiness’ levels were assessed through a variety of qualitative interview tools, and correlated with the Positive and Negative Affect Schedule Scale, on which all scored very highly. This suggests that the experience of tulpamancy has an overwhelmingly beneficial impact on their general happiness.

Consistently high scores on the Tellegen Absorption Scale (to measure capacity for hypnotisability, synaesthesia and trance states) seem to reflect practice as much as proclivity. In other words, respondents reported improvements on their ability to concentrate, visualize, and experience sensory ‘hallucinations’ since taking up Tulpamancy.

Among the most interesting findings is the negative correlation between low sociability and high empathy. Further ethnographic findings from forum discussions and interview data also indicate a moderate-to-high prevalence of tulpamancers who identify with, or have been diagnosed with Asperger’s syndrome. No significant findings of impairment were found for either of the two respondents who took the Theory of Mind test, suggesting a series of hypotheses: 1) an initial misdiagnosis for these respondents; 2) false-positive results from highly functional Aspergers’ individuals accustomed to taking ToM tests and translating them to formal logic; 3) a flawed understanding (in mainstream neuroscience) of how so-called Autistic Spectrum Disorders affect intuitive psychology, or 3) the possibility that mindful tulpa-like practice may improve Theory of Mind and empathy.

While preliminary results strongly suggest that tulpamancy enhances hypnotisability and overall happiness state, more research is needed on the relationship with Theory of Mind, empathy and the possibility of intuitive [non-logical] improvement through practice.

What is the relationship between Tulpamancy and psychosis?

None as far as we can tell. Psychosis is a medical label imposed on states of consciousness that are considered abnormal for primarily social reasons. The label is useful when ‘patients’ experience debilitating cognitive disorganization, negative relationships with their mental constructs, and high levels of social impairment. This is not the case with Tulpamancers, who report high levels of happiness, including significant improvement on self-reported “symptoms” (understood as whatever aspect of their life and personality they are unhappy about) such as anxiety, obsessive behaviour, phobias, loneliness, depression and self-harm.

The example of non-psychotic, personally beneficial altered states of consciousness found in Tulpamancy may in fact carry fascinating implications for mental health research and practice. Transcultural studies have shown that many “schizophrenics” in non-western cultures experience much less fear, paranoia and violence than their euroamerican counterparts, suggesting that the debilitating paranoid delusions associated with the disease may be a particular kind of western culture-bound syndrome – and most particularly among social groups who experience discrimination. Further experimental work on encouraging patients to accept and work with their “voices” has also shown

promising results. Tulpaforcing practice, as such, could be studied experimentally for potentially therapeutic ends.

Does Tulpamancy have negative effects?

The only physical and psychological “symptoms” that may be increased by tulpa-forcing are headaches and involuntary forms of cognition such as ear-worms (when a tune is “stuck in one’s head”). Some tulpamancers acknowledge risks of further social withdrawal as a consequence of having creating an optimal mental universe that cannot be matched in “real life”. Most actively discuss the need to temper mental and physical existence. The near-consensus on the taboo concerning sexual relations with Tulpas seems to be one such ‘measure’ to prevent excessive withdrawal. Overall, however, preliminary evidence suggests that tulpamancy’s positive effects on confidence and self-esteem may improve practitioners’ social life.

A young man diagnosed with schizophrenia claims Tulpaforcing has helped him make his voices friendlier. He reports being well adjusted socially after years of severe distress. Can you comment?

First, we have to be cautious about jumping to conclusions from limited data, and this young man’s claims would have to be verified through behavioural observation and testing (the most important question being pragmatic: how well adjusted is he socially and personally, and how successfully does he function in school, family, and professional circles?). If they are true, however, the implications are unprecedented. To understand why this claim is groundbreaking, we have to appreciate how the questions of religion, ‘delusions’, and Tulpamancy are linked, and how western culture provides a unique framework that is at once repressive of, and conducive to ‘delusions’ and altered states of consciousness. It is important to stress that Tulpa-like phenomena provide the best cognitive explanation so far for how religious beliefs work, and why they are found in all cultures. On the one hand, they are an ‘inevitable’ property of mind (this is why we see faces in the clouds, etc.), but on the other, they require specific talent and lots of practice to be successfully channeled and taken to full sensory and therapeutic experiences. The ability to conjure Tulpa-like agents is also a feature of the deeply *social* nature of the mind. We are a socio-cultural species, and our worlds of meaning can only exist through the making and sharing of symbols. In order to do that, we must *relate to each other* and *seek each other*. This feature of our brain tends to latch on to the world beyond strictly human boundaries, and makes us *relate to* (and conjure) entities that don’t actually have minds; it also makes us *seek human-like, mind-like* interactions, particularly when opportunities to form real social bonds are limited. How a society defines and enforces what is ‘real’, how to know it, and how to interact with each other will produce different Tulpa-like experiences. Western culture, for example, places a high – some would say repressive – emphasis on rational and logical modes of thinking, but also on individualism and bounded models of the Self. One explanation for the high – and particularly traumatic – incidence of mental illnesses in the West is that they are caused

by frustrated social longings that take the form of ‘involuntary’, mostly scary Tulpa-like experiences. Think of this explanation as “the social mind strikes back” hypothesis. Genetic predisposition may play in role in individual proclivity, or ‘talent’ for tulpaforcing and delusions, but we also know that these dispositions are not activated in such violent ways in all cultures. Schizophrenia is by far the scariest and most incapacitating example of “involuntary Tulpas”, and, for reasons we don’t fully understand, particularly more so in the West where paranoia and grossly disorganized thought seem to be at the centre of the experience. Note once more that paranoia is fundamentally concerned with *other people*.

In the Tulpamancer community, many insist that psychoses and Tulpas have their roots in different cognitive domains. This is an understandable effort to stress that Tulpamancers are not psychotic or dysfunctional, but we should also consider how both phenomena are very much alike – in particular, we should remember that they are rooted in the universal mental propensity for culture, and specific social structures that mediate or repress this propensity.

Tulpas are simply more organized, focused, and friendly mindful constructs brought about by meditation that happen to be beneficial to their hosts. One hypothesis proposed by Dr Ian Gold, a philosopher of neuroscience at McGill University, is that Tulpas may increase oxytocin levels, a hormone associated with happiness and the social region of the brain. If these assumptions are correct, Tulpaforcing techniques could have radical implications for the treatment of schizophrenia and other malignant psychoses.

Encouraging patients to get to know their voices, accept them, and work with them has proven to be a successful, but sadly marginal approach in the psychiatry. Despite overwhelming evidence that the long-term outcomes of medicalization and anti-psychotic drugs are very poor for patients in the West, psychopharmacology remains the treatment of choice. In the age of big pharma business and the marketing of madness, there is little interest in the ‘content’ of delusions. We are advocating a radically different approach, and tulpamancy may hold the first empirically demonstrable clues that working with, and even learning to love one’s ‘delusions’ can provide a solution to the problem of “mental illness”. The implications are immense, not least because “tulpa-therapy” is free and does not require the institutionalization and social isolation of patients. Its implications for the debate on religion are also important. History has shown us that religious culture has positive implications for group bonding and emotional happiness, but that the mutually exclusive dynamic of its multiple factions has caused no end of war and grief.

Tulpamancy harnesses the same kind of mindful work found in meditation and prayer, but its cosmology remains open, precisely because tulpas are accepted as mental constructs, but not as transcendental truths. As we insist, the practice can also teach us a lot about the social nature of mind and the question of collective happiness.

Please expand on what you mean by “agent extrapolation” and “Theory of Mind”.

Let's define an 'agent' as a living thing with intentions and goals. Our minds make us detect and imagine agents even when they aren't there, and more importantly, make us assume that agents have private mental states and specific goals, that they understand our own mental states, and are as such able to trick us –in other words we incorrectly assume that all agents have human minds. The first cognitive feature we must understand is *agent detection*. For example, we hear rattling sounds coming from a bush, and we instantly infer the presence of a wild animal about to attack us. This triggers a fight or flight response. For the purpose of survival, we have detected and predicted the presence of a dangerous agent. This mental device also prompts us to *hyper-detect* agents (agent hyper-detection), or to predict too much from too little information, as is the case when noises in the bushes were caused by the wind, but scared us nonetheless. When we assume *way too much*, we extrapolate: we estimate values and properties of agents much beyond the range of what is observable and verifiable.

Theory of Mind (ToM), in the context of over-detecting (or extrapolating), explains why we anthropomorphize, or attribute human mental states to agents that aren't human, or aren't there to begin with (“this puppy is sad”; “god is angry at me”, “this house is haunted and can read my fears”; “my Tulpa doesn't like heavy metal”). ToM is a fundamental feature of human consciousness that gives us the ability to relate to others – that is, to put ourselves in their shoes with the implied assumption that they too have minds as well as private thoughts and goals that may differ from our own (“my Tulpa doesn't like heavy metal, but I don't”). This implied assumption (“others have mind like my own”) requires us to infer, deduct, detect, or extrapolate others' thoughts in order to communicate with them (“Jane says she is happy, but I can tell she is actually sad” ; “my teacher doesn't know that I cheated on the test”, “my mother is coming home tomorrow expecting to find my brother, but she doesn't know he has left already”). This is why we call it a *theory* of mind: because we need to make instant, implicit theories about what others know at any given moment based on information we know they know and more we know they don't know. This is why ToM is also called mindreading. Understanding *false beliefs* – that people's private thoughts may be different, wrong, misdirected, or purposefully misleading, e.g., “X thinks that A is true, but in fact, A is false”, “or I know that X wants me to think that A is false, but I know that A is true and X doesn't know I know so I have one over him” – is an essential feature of ToM, which is said to be impaired in autistic individuals, and non-existent in other mammals and primates (side note: whether or not chimpanzees have a ToM is still being debated, but the most common answer to the question is no – see Call & Tomasello, 2008 for a review of the debate). Testing people's abilities to understand and predict false beliefs is the most reliable method for assessing ToM and ToM impairment.

To sum up, imagining boogeymen, spirits, gods, or tulpas requires an *over-activation* of our agent-detection device and ToM. What is most mind-bending about the phenomenon is that we can easily fear being tricked by animals, spirits or tulpas because our 'theory' that their thoughts may be different, false, misleading, or inaccessible requires the assumption that they are actually just like our own thoughts, that can also be different, false, misleading, or inaccessible to other people (“A is true because A is not true”). That ToM is founded on such a logical paradox may also explain why it glitches so far being what is actually there.

Please explain what you mean by the social mind.

First, we need to return to some of the arguments proposed by the cognitive science of religion and the psychiatric literature on delusion.

We have seen that there is nothing abnormal about interacting with imaginary agents, about entering trance, dissociative, or possession states, or reporting sensory interaction with things, beings and spaces that aren't immediately present in the directly observable register of social experience. These claims, behaviours and beliefs are found in all cultures throughout recorded history. In the modern era, however, they have been increasingly confined to spaces of 'religious' ritual, while outside these norm-governed settings, they are increasingly subject to the lens of psychopathology. The scientific literature on super-natural beliefs provides a good starting point to discuss the neurocognitive processes involved in the creation of sentient, non-physical agents.

The by-product argument

A series of recent empirical findings in the cognitive anthropology of religion have brought forth a growing consensus to explain the prevalence of such experiences. First, according to theorists in the so-called 'by-product' camp (Guthrie, Barrett, Boyer), belief in supernatural agents is not so much a common transcultural phenomenon, but an inevitable property of mind. That we see faces in the clouds (Guthrie), imagine boogeymen under our beds, or create imaginary friends (Boyer) is a reflection of that propensity to imagine, fear, love or otherwise interact with agents that aren't physically there. Psychologist Justin Barrett situates this universal human tendency in a so-called 'agent detection', or 'agent hyperdetection' cognitive module. From the standpoint of evolutionary psychology, which examines cognitive functions as having arisen from a series of epistemological and survival problems encountered by our hunter-gatherer ancestors, this ability is understood as an evolved solution to a predator-prey problem – that is, as stemming from the need to anticipate the presence and goal-directed behaviour of dangerous agents. Creating and believing in metaphysical agents, in this light, would be an accidental 'by-product' of the agent-detection cognitive module.

We take a more sceptical approach to the modularity of mind hypothesis. We note that the notion of a 'by-product', 'accident', or 'spandrel' presupposes an intentional design somehow gone awry. Rather, we think of minds as a complex, but ultimately arbitrary organisms that are inextricable from equally complex physiologies and environments, and that are as such fraught with as many flaws as they are supported by optimal functions. Agent hyperdetection can be seen as one such flaw – and particularly so in naturalistic ontological regimes that demand collectively verifiable empirical proofs for all phenomena.

The Theory of Mind approach

The question of lack of collective verifiability for metaphysical phenomena remains open, and was further explored in a second series of arguments proposed in the culture

and cognition camp. Why, we should ask, has the ‘existence’ of supernatural agents persisted in all cultures if they seem to stem from such ‘obvious’ category mistakes? Ethnoscience work (the study of lay taxonomies of natural phenomena in non-western cultures) (Atran and Medin) has shown that, pending minor variations, humans across cultures tend to categorize information through highly similar ontological templates. Concepts for person, animal, plant, natural object and tool (or human-made object), despite their internal diversity, exist in all cultures.

In their compressive review of religious and magical beliefs across cultures, Boyer and Barrett identified a narrower list of ontological templates for the supernatural. The key to understanding why such beliefs are successfully accepted, recalled, and passed on, they argued, lies in their *minimally counter-intuitive* organization, particularly in the marginal variations imposed on the concept of *person[mind]*. A ghost, spirit, or god, for example, is simply a person without a physical body. Boyer and Barrett have shown that such propositions are neither radical nor majorly counter-intuitive, because they tend to be understood, feared, loved, or worshipped for their fundamentally *mental* characteristics – in other words, the implicit assumption behind such concepts is that metaphysical agents *have minds*, and that as such, *they think just like us*. If, say, a magic volcano or sacred tree are said to be able to remember things or read one’s thoughts, they are implicitly assumed to understand and interpret these thoughts through a set of experiences and modalities that are distinctly human. In other words, they are implicitly assumed to partake in human consciousness, or to be human. This basic anthropomorphism and tendency to project our consciousness, perspectives, intentionality, and agency onto non-human entities is a common thread in all supernatural beliefs. In this model, ‘accidental’ agent-extrapolation can be understood through the more domain-general property of human consciousness often called intuitive psychology, perspective-taking (Tomasello) mind-reading, or Theory of Mind (ToM). ToM, in the case of spirits, ghosts, animism, or tulpamancy simply extends to non-human things – or ‘glitches’ outside strictly human boundaries. We theorize ToM as a basic feature of consciousness that tends toward anthropomorphism as much as it enables human communication and the collective mediation of meaning and intentionality. ‘Shared consciousness’, from this perspective, is a redundancy, because human consciousness is a necessarily collective project. We take this fundamentally *social* feature of mind and consciousness as a starting point for the investigation of extra-human mental constructs. Following others working on anthropology approaches to ToM (Lurhmann, Lucy et al, 2010), we are interested in cultural settings – like Tulpamancy – that exploit the intrinsic *porousness* of minds, a process which we understand as working against the grain of the *bounded* models of minds and selves that characterize the modern experience.

The Social Mind approach

More light is shed on the porousness of social minds in the cultural psychiatry literature. In a recent discussion on the role of culture in shaping ‘delusions’, brothers Ian and Joel Gold (with training in philosophy and psychiatry, respectively) examined the range of ‘delusional’ beliefs found across cultures, and found that despite a rich variety of culturally-mediated content, they tended to be organized within a small thematic subset.

The ‘ontological templates’ for delusional beliefs (to borrow a term from Boyer) across cultures, according to the Golds, is mostly restricted to 12 common themes: [delusions of] persecution, jealousy, erotomania, ‘religion’, grandiosity, control, somatic delusions (like hypochondriasis), delusions of thought (thought insertion, withdrawal, etc.), nihilistic delusions, guilt, reference, and misidentification (Gold & Gold, 2014, p115-117). By the Golds’ account, this small range of delusions can ultimately be narrowed down to a single unifying theme: other people. Whether expressed through love, fear, control, or longing, human delusions seem to be fundamentally concerned with the social, which also explains why the content and texture of these ‘false’ beliefs is invariably ‘filled’ with linguistic and symbolic sets of references that are consistent with the patients’ culture. In Wittgenstein’s old adage, ‘there is no such thing as a private language’. In this study, we take this to mean that there is no such thing as a private delusion – or for that matter no such thing as a fully private mind.

In reviewing the high incidences of psychoses in urban centres and among minorities who experience discrimination, scholars in the critical psychiatry camp have posited that the fragmentation, isolation and new forms of loneliness found in modern societies may be conducive to psychosis among those who feel most marginalized.

We seek to examine what we call the *social triple-bind*² that may lie at the heart of this schizophrenogenic dynamic which, in much more hopeful, non-pathological settings, might have given rise to the success of tulpamancy.

The triple-bind hypothesis

Let us return to the problem of counter-intuition and category mistakes. If human consciousness at its most intuitive is an intrinsically collective, *social* phenomenon, it follows that social processes that place solitary – or outright isolating – demands on subjects create another counter-intuitive dynamic. In this model, subjects are guided by a natural urge to be social that cannot be met under anomic social conditions. How the porousness of social minds may at once become ‘activated’ and repressed subsequently requires further theorizing. In the standard medical literature (cite), psychoses and schizophrenia are associated with impaired ToM. Here, we suggest that the term ‘impairment’ is misplaced. Rather, we propose that post-anomic psychoses may be mediated by *too much*, rather than *too little* ToM, or from an *over-activation* and misattribution of ToM porousness rather than a rupture. Hearing, feeling and fearing imagined agents everywhere and in unusual configurations, we argue, requires different mental work from *failing to relate* to actual agents (as seems to be the case with ToM impairment in autism spectrum disorders). There remains, before post-anomic agent extrapolation may be labelled ‘religious’, ‘delusional’, or ‘psychotic’, the first question of counter-intuition. To what extent is it ‘naturally’ counter-intuitive to integrate metaphysical agents in everyday human existence? How do dominant naturalistic biases

² the double-bind hypothesis for the origins of schizophrenia was first proposed in the 1950s by anthropologist Gregory Bateson. In cybernetic theory, double-binds can be understood as negative feedback loops, or communication errors. Bateson and colleagues theorized that psychosis emerges from exposure to conflicting parenting approaches and messages that can otherwise not be consciously identified and named. In the triple-bind hypothesis, we take this model to further levels of contradictions at the societal level.

in modern cultures contribute to further counter-intuition? It remains plausible, however (and to sum up), that high incidences of agent extrapolation in modern cultures can be theorized through this triple dynamic: 1) a mentally intuitive, but 2) socially counter-intuitive [in modern societies] need to be social that fails to be met; and 3) further paradoxes found in the hard mental and cultural work of attempting fully integrate non-existing agents into every life.

The hard-work-of-belief approach.

In his later work, Pascal Boyer readily acknowledges that, inevitable and prevalent though they may be, supernatural beliefs are also difficult to fully accept and experience. In his recent review of the ‘perspectivist’ hype in anthropology³, he warns against the assumption that such beliefs about multiple worlds would be widely accepted among member of animist cultures. Cosmological narratives, he argues, are necessarily counter-intuitive, are always contested within cultures; they are difficult to accept and master, and require long and specific initiations and training which, further, are met with a variety of ‘success’ and ‘failures’. This line of thought was notably picked up by Tanya Lurhmann in her critically-acclaimed study of modern Pentecostal Christians. Lurhmann showed that, far from being gullible literalists, Pentecostals also struggled with the hard work of belief. Her research was instrumental in demonstrating that while some Pentecostals come to fully hear and feel their God, it also takes specific talent, specific training, and arduous meditative work to fully achieve such experiences. For those who achieve successful religious experiences, she argues, the therapeutic implications are immense. Lurhmann’s was the first study of its kind that took the benefits and sensory reality of religious practices seriously while highlighting the difficult, but potentially transformative cognitive work at play in such experiences.

An emerging conclusion of Lurhmann’s study is that, when successfully conjured, the god of Pentecostal Christians could be explained as a tulpa-like experience.

Tulpamancy, as we hope to demonstrate, provides a fascinating social context in which agent extrapolation is taken to its full sensory and therapeutic conclusions within a non-religious, non-psychotic set of cultural representations and practices.

³ Perpectivism is a theory on ‘animist’ ontologies (mostly found in Amerindian, Melanesian, and Siberian cultures) in which humans are said to share psychic unity with animals against the background of ‘multi-natural’ worlds of matter (see Viveiros de Castro, Descola, Holbraad, etc.)