
Rethinking Social Cognition: Power, Strategy, and the Myth of Mindreading

Egil Diau
National Taiwan University
Taiwan, Taipei
egil158@gmail.com

Abstract

Empathy is often viewed as the cornerstone of social intelligence, with Theory of Mind (ToM)—the capacity to infer others’ mental states—framed as its core mechanism. Yet ToM remains conceptually vague, mechanistically underspecified, and empirically fragile. Across both humans and other social animals, mental state inference is inconsistent, context-dependent, and error-prone, suggesting that “mindreading” reflects memory-based social inference rather than a dedicated cognitive module. In contrast, status recognition and power-relevant strategies are behaviorally robust, contextually stable, and consistently observed across social species. We propose reframing social cognition—not as a faculty for mental state inference, but as a structured system for tracking status and navigating power dynamics. This view is supported by controlled behavioral experiments, ecologically valid social tasks, and neuroscience findings. It offers a more mechanistic, cross-species, and psychologically grounded account of social intelligence, providing a stronger foundation for empirical research, real-world application, and computational modeling.

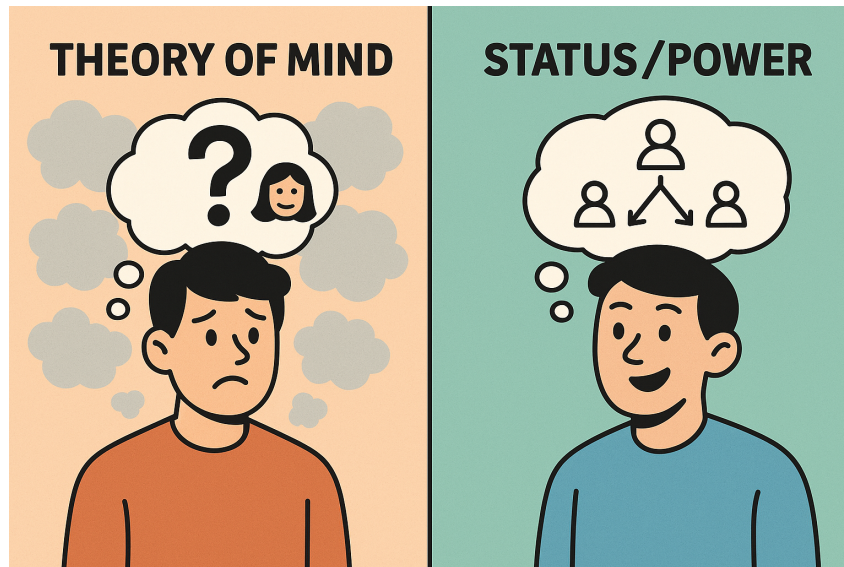


Figure 1: Across human and other social species, mental state inference is noisy, unstable, and often indeterminate—while power-related behaviors and status recognition are consistently observable, robust, and socially consequential.

1 Introduction

The dominant view in psychology and the humanities treats empathy as the cornerstone of social intelligence. This framing has given rise to the widespread belief in Theory of Mind (ToM) Premack and Woodruff [1978], Wimmer and Perner [1983], Baron-Cohen et al. [1985], Wellman et al. [2001]—a putative capacity to infer the mental states of others—as the primary driver of human social behavior. Supporting constructs such as mirror neurons and belief-inference mechanisms are commonly invoked to explain this ability, and are now deeply embedded in developmental psychology and theories of intersubjectivity.

However, empathy rarely governs real-world interaction. In high-stakes contexts—such as negotiations, interviews, sales, or relationships—individuals do not act based on shared emotional states. Instead, they assess power dynamics, form advantageous alliances, and adjust their behavior to navigate and negotiate mutual interests. These behaviors—alliances, avoidance, and strategic adjustment—are not guided by empathy but by implicit assessments of power, position, and potential outcomes. They consistently determine who gains influence and who is excluded.

Within traditional accounts of social cognition, Theory of Mind (ToM)—the presumed ability to infer others’ beliefs and intentions—is both the most iconic and the least robust. Despite decades of research, its conceptual basis remains vague and its mechanisms undefined. “Mindreading” is invoked metaphorically, lacking consistent cognitive grounding. Empirically, belief inference is inconsistent, context-sensitive, and error-prone across both humans and non-human animals—suggesting that ToM reflects a general-purpose system of memory-based social inference rather than a distinct cognitive module.

In contrast, one class of social behavior is reliably observed across species: status recognition and power-sensitive interaction. From dominance displays in primates to prestige cues in humans, individuals monitor their own and others’ positions within the social structure and adjust their behavior accordingly. These mechanisms are observable, rapid, and contextually robust—providing a clearer and more consistent foundation for understanding social cognition.

We propose reframing social intelligence—not as a capacity for inferring hidden mental states, but as a structured system for tracking status and navigating power. On this view, social cognition is best understood as strategic navigation of social structure, not as recursive belief attribution. This alternative framework offers a more stable and mechanistic account of how social cognition functions in real-world settings.

Our contribution. This paper reframes social cognition—not as mindreading, but as the strategic navigation of status and power. Our key contributions are:

- Reframe Theory of Mind as a form of memory-based social inference, grounded in three mechanisms: (1) contextual inference, (2) interactional memory, and (3) patterned associations;
- Establish status recognition as a core component of social cognition—emerging early in development, generalizing across contexts, and guiding how individuals allocate attention, interpret behavior, and adjust social responses;
- Identify four functional domains through which power structures shape social reasoning: inferring others’ goals, managing coalitional alliances, navigating one’s own status, and using incentives to influence others’ behavior;
- Advance a unified, cross-species framework in which social cognition is grounded not in empathy or innate mindreading, but in the strategic understanding of status and the use of power to navigate social environments.

2 Related Work

2.1 Human Social Inference and Theory of Mind

A dominant assumption in social psychology and cognitive science is that human social intelligence hinges on the ability to infer others’ mental states. From everyday conversations to moral judgment,

people appear to effortlessly attribute beliefs, desires, and emotions to those around them. This intuitive framework—commonly referred to as Theory of Mind (ToM)—suggests that social interaction depends on recognizing that others have minds, and that these minds guide their actions. The appeal of this idea has made ToM a central construct across developmental psychology, philosophy of mind, and neuroscience.

The earliest formal investigations of ToM focused on whether this capacity was uniquely human. Premack and Woodruff's landmark study in 1978 posed the question: Does the chimpanzee have a theory of mind? Premack and Woodruff [1978]. This question launched a decades-long search for evidence of ToM across species and developmental stages. Researchers devised a range of experimental paradigms—such as gaze-following Scaife and Bruner [1975], Butterworth and Jarrett [1991], visual perspective-taking Flavell et al. [1981], Masangkay et al. [1974], and false-belief tasks Wimmer and Perner [1983], Baron-Cohen [1997]—to test whether subjects could infer unobservable mental states.

Despite decades of research, empirical assessments of ToM remain plagued by fundamental limitations. Many paradigms rely on artificial, highly constrained settings that fail to capture the complexity and uncertainty of real-world social interaction. Others conflate behavioral prediction with mental-state attribution, blurring the line between observed success and underlying mechanism. As a result, it remains unclear whether ToM reflects a core cognitive capacity or merely a descriptive label applied to a diverse set of heuristic strategies. This ambiguity continues to challenge both the theoretical coherence and empirical validity of ToM as a unified construct.

2.2 Animal Social Inference and Comparative Evidence

Comparative research on Theory of Mind (ToM) began with a strikingly direct question: Does the chimpanzee have a theory of mind? Premack and Woodruff [1978]. Since then, nonhuman primates—especially chimpanzees—have become the primary focus of experimental efforts to test whether social animals can attribute mental states. Researchers have used a variety of tasks, including gaze-following, visual perspective-taking, and goal-directed behavior paradigms, to probe whether these species can infer what others see, want, or know.

Yet after decades of experimentation, the evidence remains inconclusive. Performance across species is highly variable, often task-dependent, and vulnerable to alternative explanations. Even in chimpanzees—our closest relatives with clearly strategic social lives—results on ToM tasks remain debated and fragmented Call and Tomasello [2008], Krupenye et al. [2016]. While some studies suggest sensitivity to visual access or goal direction, others fail to replicate key effects or reveal inconsistent patterns across individuals and contexts.

This instability has led many to question whether ToM is the right framework for understanding animal social cognition. Rather than indicating a lack of intelligence, the inconsistent results may reflect a mismatch between experimental assumptions and the actual structure of social inference in animals. Chimpanzees, for example, exhibit striking political behaviors, alliance shifts, and dominance strategies—clear signs of complex social reasoning Waal [2007]. The challenge lies in capturing these dynamics with tasks that reflect the real pressures and incentives of group life.

2.3 Power, Status, and Social Rank Dynamics

Across social species, social behavior is structured by rank. Dominance, status, and alliance dynamics are consistently observed across mammals—from wolves and hyenas to dolphins and primates—and play a central role in access, coordination, and survival. In contrast, evidence for Theory of Mind in animals remains sparse, inconsistent, and heavily debated. Even in chimpanzees—where political behavior is strikingly strategic Waal [2007]—ToM findings are weak, task-dependent, and contested. This asymmetry raises the possibility that the foundations of social cognition may lie not in attributing mental states, but in something else.

In humans, the asymmetry is equally stark. Behaviors related to power—such as status competition Anderson and Kilduff [2009b], alliance formation Tajfel et al. [1971], strategic exclusion of Oklahoma. Institute of Group Relations and Sherif [1961], and differential treatment based on perceived rank Magee and Galinsky [2008]—are reliably recognized and consistently shape interaction. People infer social status by observing how others respond: who is deferred to, who receives attention,

who commands coordination Berger et al. [1972]. These collective reactions visibly structure social rank, making power relationships clear and predictable. By comparison, inferences about beliefs and intentions remain noisy, unstable, and prone to error. This asymmetry suggests that human social cognition is fundamentally grounded in tracking power dynamics through group behavior.

2.4 Strategic Social Interaction and Negotiation

Strategic interaction is fundamental to real-world social behaviour, yet has largely been overlooked in traditional psychology. Classical paradigms of social cognition typically centre on isolated, dyadic tasks—such as emotion recognition or false-belief attribution—neglecting the inherently multi-agent, strategic nature of human interactions. In contrast, behavioural economics, negotiation research, and game theory have long emphasized that social behaviour unfolds in strategic contexts, where individuals must anticipate others’ responses, assess incentives, and dynamically navigate shifting coalitions and power relations.

Behavioural game theory has consistently demonstrated that human decisions are sensitive to reputation, fairness norms, and perceived strategic risks. Seminal studies using the Ultimatum GameGüth et al. [1982], Trust GameBerg et al. [1995], and repeated Prisoner’s DilemmaAxelrod and Hamilton [1981] show that individuals do not merely maximize utility. Instead, they actively infer social contingencies, retaliate against perceived unfairness, and adapt strategies based on the inferred intentions and interaction histories of others.

Similarly, negotiation research has revealed how individuals strategically manage alliances, signal intentions, and adjust tactics to optimize outcomes. Empirical work highlights the critical roles of framing, anchoring effects, and information asymmetries in shaping negotiation successThompson [1990], Bazerman et al. [2000]. These scenarios represent ecologically valid tests of social inference, offering far greater complexity and realism than standard theory-of-mind assessments.

Collectively, these literatures indicate that social cognition is fundamentally concerned not with isolated mental-state attributions, but with navigating incentives, predicting others’ responses, and coordinating behaviour under conditions of uncertainty.

ToM-like social inference

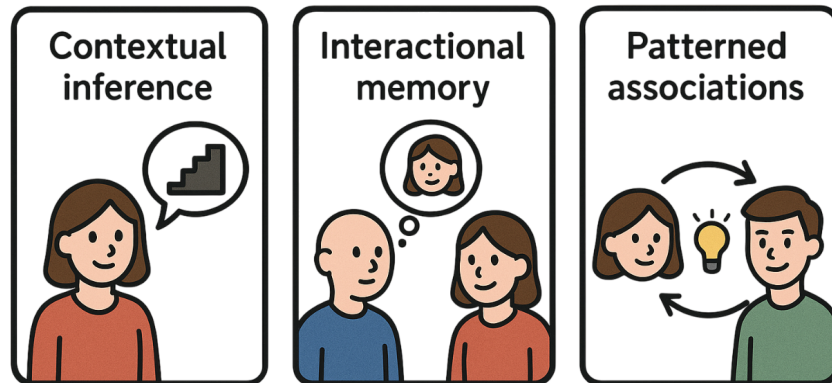


Figure 2: ToM-like social inference can be reconstructed from three memory-based mechanisms: contextual inference, interactional memory, and patterned associations—not a dedicated mindreading module.

3 The Mechanistic and Conceptual Flaws in Theory of Mind

3.1 Conceptual Ambiguity: A Construct Without Clear Boundaries

The concept of Theory of Mind (ToM) Premack and Woodruff [1978], Wimmer and Perner [1983], Baron-Cohen et al. [1985], Wellman et al. [2001] originates not from a clear mechanistic insight, but from an intuitive ideal: that humans are uniquely capable of “understanding others” or “feeling

what others feel.” This ideal—rooted in cultural narratives of empathy and interpersonal insight—was retrofitted into a cognitive framework that posits a dedicated capacity for inferring mental states. In its most extreme interpretation, this led to popular claims of an evolved “mindreading module,” and fueled enthusiasm around neural constructs like the mirror neuron system Di Pellegrino et al. [1992]. Yet these mechanistic proposals have remained speculative at best, and many of the initial empirical claims (e.g., mirror neuron-driven simulation) have failed to replicate reliably.

ToM has since expanded into an increasingly heterogeneous label, encompassing everything from gaze following and false belief tasks to simulation, verbal reasoning, and emotional inference. These behaviors differ not only in complexity and developmental profile, but also in underlying mechanisms. The common practice of treating successful social prediction as evidence for ToM—regardless of whether it is based on memory, association, imitation, or learned roles—has rendered the construct circular. Without functional decomposition or mechanistic specificity, ToM risks becoming an unfalsifiable post-hoc attribution rather than a testable theory of social cognition.

3.2 Mechanistic Confusion: Memory, Pattern, and the Illusion of a Social Module

Despite its widespread use, the concept of Theory of Mind suffers from deep conceptual and mechanistic ambiguities. It is often portrayed as a domain-specific, quasi-magical capacity for “understanding others’ minds,” yet rarely defined with precision. What is commonly labeled as ToM—from false belief tasks to everyday social prediction—lacks a clear boundary and is often treated as if it reflects a specialized mental faculty, rather than a loose bundle of heterogeneous processes.

In reality, what appears to be “mindreading” often reflects more grounded and generalizable mechanisms 2:

- **Contextual inference:** People use cues from the immediate interaction—like tone, timing, emotion, and attention—to activate relevant social memories and judge what others are feeling or trying to do.
- **Interactional memory:** People recall similar kinds of social situations they’ve experienced before and use that memory to anticipate what’s likely to happen next.
- **Patterned associations:** People rely on familiar social scripts and settings—like routines, role dynamics, or institutional formats—and use those patterns, stored through repeated experience, to interpret what is happening and what usually follows.

From this view, social reasoning is not the output of a specialized “mindreading module,” but the product of accumulated experience, memory, and ecological pattern recognition. This interpretation is supported by a wide range of psychological findings. Studies have shown that episodic and associative memory systems are strongly implicated in social tasks: people remember not just facts, but who said what, in what tone, under what circumstances—and use that information to adjust their expectations and responses toward others in future interactions Hastie and Kumar [1979], Flavell and Miller [1998], Todorov et al. [2007].

In this framing, what is traditionally described as “Theory of Mind” may be better understood as a form of structured pattern completion—drawing on interactional memory, contextual cues, and repeatedly learned social roles and scripts to generate real-time inferences.

3.3 Methodological Blind Spots: What Are We Really Testing?

Despite decades of research, many tasks labeled as “ToM measures” suffer from ambiguous interpretations. Success in false belief tasks Wimmer and Perner [1983], Baron-Cohen et al. [1985], Wellman et al. [2001], for example, may reflect task familiarity, verbal scaffolding, or learned scripts rather than an ability to infer unobservable mental states. Gaze-following Scaife and Bruner [1975], Baron-Cohen [1997], Meltzoff and Brooks [2008] is often treated as early evidence of mindreading, yet it can be explained by simple attentional alignment or conditioned responses—and crucially, it does not require representing another agent’s beliefs or goals. In many cases, behavioral performance is treated as evidence of ToM without identifying the underlying mechanism—leading to circular logic and over-interpretation.

This tendency reflects a deeper issue: the theoretical commitment to ToM has directed attention away from key mechanisms like memory, interaction history, and pattern association. By assuming a “mindreading” capacity, researchers often overlook the more grounded processes that actually support social reasoning.

3.4 The Social Blind Spot: Goal, Power, and Asymmetry

Most theories of mind focus on understanding others’ beliefs and intentions, but real-world social interaction is rarely so neutral. Social life is fundamentally goal-directed: people act to acquire opportunities, build alliances, and compete for influence. And in nearly all such situations, power is not distributed equally. In fact, power is almost never equal—and often cannot be.

This structural asymmetry is not a background variable—it defines the logic of interaction. Who can speak freely, who must defer, who gets to make demands or walk away—these are not matters of belief inference, but of position. “Understanding others” may help, but only insofar as it informs action within an uneven landscape of leverage, constraint, and expectation.

ToM-based models largely overlook this. They assume symmetric agents mutually inferring one another’s minds, as if power played no role in social cognition. But in reality—and in many nonhuman species—effective social behavior depends not on reading minds in the abstract, but on recognizing one’s position and acting accordingly Waal [2007].

4 Status Over Beliefs: Rethinking the Order of Social Inference

4.1 Power as the Basis of Coordination in Social Animals

Theory of Mind—the ability to attribute beliefs, desires, and intentions to others—is often considered a uniquely human capacity. This view is largely shaped by the difficulty of demonstrating belief attribution in nonhuman animals, where experimental evidence remains limited and inconclusive. As a result, ToM has come to be seen not only as a mark of human uniqueness, but as the presumed foundation of social cognition. Yet across a wide range of social species, we observe stable, strategic coordination without compelling signs of mental state inference. Social intelligence, in these cases, appears to rely on other foundations.

In particular, *recognizing status* and *navigating power dynamics* involve social patterns that are directly observable at the behavioral level—such as who defers to whom, who initiates actions, and who receives collective attention. These dynamics are stable, recurrent, and cognitively accessible, providing a reliable basis for social coordination—without requiring access to others’ internal beliefs or intentions.

Across a wide range of social species, hierarchical structures are not anomalies—they are functional necessities. From chimpanzees and wolves to lions and hyenas, steep dominance hierarchies govern access to food, mating, and group movement. High-ranking individuals coordinate actions, mediate conflicts, and regulate interactions through strength or alliance. Even in species with more tolerant dynamics—such as orcas or bonobos—status still shapes behavior. Post-reproductive orca matriarchs lead migrations based on ecological memory, while high-ranking bonobo females influence social decisions and control sexual access.

Rank differences serve as an organizing principle that supports coordination, reduces ambiguity, and stabilizes collective behavior. Without such structures, groups risk leadership breakdown, movement disorder, and conflict over limited resources. Hierarchies—whether steep or shallow—clarify roles, reduce friction, and anchor social expectations.

4.2 Power Over Belief in Chimpanzee Social Inference

Chimpanzees—our closest living relatives—have long occupied a central role in research on Theory of Mind Premack and Woodruff [1978], Call and Tomasello [2008]. Their genetic proximity, social complexity, and behavioral flexibility make them ideal candidates for investigating the origins of mental state attribution. Indeed, no nonhuman species has been tested more extensively for evidence of belief, intention, or perspective inference Hare et al. [2000, 2001], Krupenye et al. [2016], Call et al. [2004].

Yet decades of experimentation have yielded equivocal results. Despite extensive methodological innovation, the evidence for belief attribution in chimpanzees remains fragmentary and often disputed. This persistent ambiguity invites a reframing of the question itself. What if mindreading is not the primary substrate of social intelligence—even in species as cognitively advanced as chimpanzees?

In contrast to the elusive signs of Theory of Mind, chimpanzees display remarkable clarity in a different domain: *power* Waal [2007]. Rank and dominance shape virtually all dimensions of chimpanzee social life. Their behaviors reflect not abstract belief attribution, but strategic engagement with hierarchy: coalition-building, affiliative grooming, and rank-contingent deference.

These behaviors are not peripheral—they are the functional architecture of chimpanzee social cognition. Navigating power dynamics enables individuals to secure allies, gain mating access, and reduce conflict over limited resources. In this ecological and social context, cognitive priority is given not to hidden mental states, but to observable social structure. Chimpanzee intelligence begins not with belief, but with rank dynamics.

4.3 The Limits of Mindreading in Human Social Inference

Despite widespread belief in the human capacity for Theory of Mind, most people routinely struggle to understand one another Epley et al. [2004]. Social life is marked by uncertainty, misinterpretation, and doubt: “What did they mean by that?”, “Why would they do this?”, “Are they being sincere?” These are not fringe cases—they are the norm of human interaction.

At the root of this difficulty lies a basic constraint: mental states are not directly observable. People say one thing and do another. They conceal, deflect, or mask intentions Ekman and Friesen [1969]. Moreover, individuals frequently lack access to their own beliefs and motivations Nisbett and Wilson [1977]. This self-opacity undermines the notion that social inference is a matter of accurately attributing internal states to others. In ambiguous situations, people tend to over-interpret or hallucinate intentions, attributing goals or hidden motives where none exist Epley et al. [2004]. Such tendencies further compromise the reliability of mental state inference.

The human mind is not a transparent system—it is fragmented, unstable, and often inaccessible even to the individual. Social inference, rather than operating through a general-purpose mindreading faculty, relies on sparse and context-bound cues: memory of past behavior, observed inconsistencies, emotional tone, or situational framing. These inferences are not full reconstructions of others’ internal states, but partial, heuristic approximations shaped by what is visible or recallable Gigerenzer and Goldstein [1996]. As a result, human social inference is inherently limited, easily biased, and vulnerable to misjudgment.

4.4 Power Over Intention in Human Social Interaction

Human social interaction is fundamentally asymmetrical. Most encounters—whether at work, in families, or online—involve some degree of power imbalance. Navigating these asymmetries is not optional; it is a core cognitive skill for maintaining cooperation, avoiding conflict, and securing advantage.

From corporate hierarchies to social media platforms, modern life is saturated with status competition Hyman [1942]. We celebrate celebrities, follow influencers, and defer to executives—not merely out of habit, but because humans are acutely attuned to social rank. People infer status by tracking whose opinions shape group decisions, whose preferences are prioritized, and who becomes the reference point in conversation Keltner et al. [2003].

This sensitivity reflects a deeper reality: most social environments are political. Power is negotiated, enforced, and performed through everyday behavior. Who speaks first, who interrupts, who gets credit—these are not random. They reveal an ongoing game of influence and positioning. Far from being a transparent exchange of intentions, human interaction is structured by strategic alignment—who commands attention, whose views carry weight, and how others adjust in response.

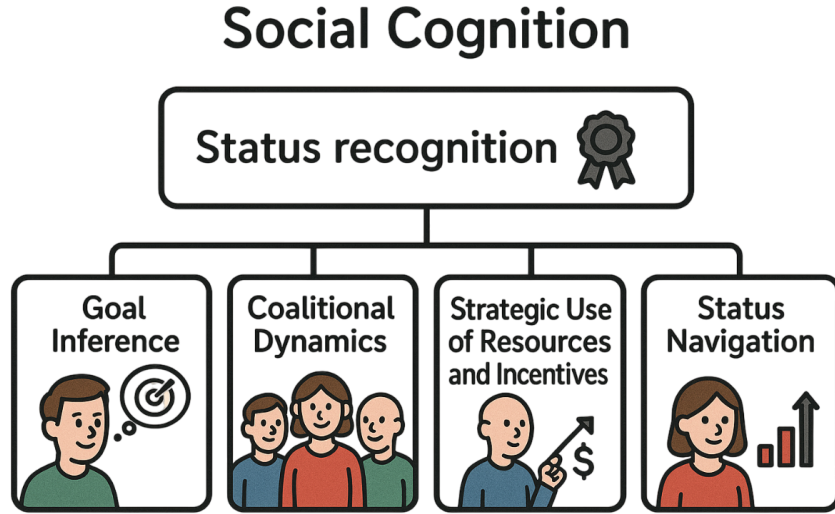


Figure 3: **A functional framework for social cognition centered on status recognition.** We propose that social cognition is fundamentally grounded in *status recognition* and the ability to *navigate power asymmetries*, rather than in mindreading or empathy. This core capacity supports four key behavioral competencies: goal inference, coalitional dynamics, strategic use of resources and incentives, and status navigation. Together, these action-oriented skills equip individuals to navigate social interactions in the real world, where power asymmetries are the norm rather than the exception.

5 Social Cognition as Strategic Power Navigation

Most models of social cognition rely on *Theory of Mind*—the assumption that humans possess a dedicated capacity to infer the beliefs and intentions of others. Yet as we have shown, ToM is conceptually vague, mechanistically underspecified, and empirically fragile. It fails to explain many core features of real-world social behavior: the prevalence of power asymmetry, the role of public cues, and the strategic nature of interaction.

We therefore propose a shift: social cognition should not be modeled as belief attribution, but as strategic action under asymmetric conditions. What individuals must navigate is not other people’s minds—but the observable landscape of status, incentive, and potential response.

Our framework rests on a biologically and behaviorally grounded insight: **status perception is the core input of social cognition**. Rather than reasoning about others’ private thoughts, individuals attend to who holds power, who commands attention, and who influences outcomes. This perception serves as the entry point for all further social reasoning.

On this foundation, we identify four functional capacities that structure real-world social behavior:

- **Goal inference** — inferring others’ objectives from available social information and interaction history, enabling agents to influence outcomes.
- **Coalitional dynamics** — selecting allies, distancing from rivals, and navigating shifting group structures to maintain or shift balance of power.
- **Incentive structuring** — modulating others’ behaviour through access, reward, and reputational leverage.
- **Status navigation** — advancing one’s social position via visibility, alliance, and strategic association.

These capacities operate without the need for belief attribution or mental-state simulation. Instead, they emerge from observable cues, interactional memory, and structured social roles. In the following sections, we elaborate each of these components and their empirical support.

6 Strategic Use of Power Without Mindreading

6.1 Status Perception as the Basis of Social Understanding

Definition 1 (Status). *Status is the relative social rank of individuals within a group.*

To navigate power dynamics, individuals must first recognize them. What is often labeled as “status” is, at its core, the perception of power asymmetry—a structured difference in control, deference, and access. This recognition is not optional; it is the foundation for strategic social behavior.

Humans exhibit a striking sensitivity to status cues. From brief encounters, individuals can rapidly infer who holds power, who commands deference, and who influences group decisions. These judgments are fast, often unconscious, based on minimal signals like posture, tone, gaze, or spatial positioning Hall et al. [2005], Foulsham et al. [2010].

This capacity emerges early in development. Infants prefer leaders, winners, or those deferred to by others. Even toddlers adjust behavior based on perceived dominance ?Anderson and Kilduff [2009a]. Neuroscience corroborates this: brain regions like the amygdala, vmPFC, and STS are selectively active during hierarchy evaluation. Together, this suggests that status sensitivity is not just learned—it is wired into the social brain Zink et al. [2008], Koski et al. [2015], Mattan et al. [2017].

Importantly, status in everyday life is not always subtle or inferred. It is often visibly enacted through group dynamics: who leads conversations, whose opinions get echoed, and who becomes the reference point. These signals are not private impressions but publicly observable patterns. Yet such dynamics are difficult to replicate in lab settings. Psychological research therefore tends to isolate visible cues—like posture, gaze, or vocal tone—not because they are theoretically central, but because they are easier to manipulate and quantify. These remain only proxies.

Moreover, status does not emerge from neutral ground. It is frequently pre-structured by role, reputation, or institutional position Durkee et al. [2020]. What interaction reveals is not just who has status, but how that status is enacted, reinforced, or challenged in context. Even without explicit labels or titles, hierarchy becomes visible through turn-taking, conversational control, and behavioral asymmetries. And in many contexts, status doesn’t need to be inferred at all—it is declared, imposed, or structurally embedded.

In parallel, prior work in machine learning has demonstrated that social status can be detected from interaction behavior, using features such as speaking time, turn-taking asymmetry, or interruption frequency Sanchez-Cortes et al. [2011, 2013], Pentland [2010]. With current deep learning architectures, this task has become even more tractable—status cues are often behaviorally salient enough to be learned end-to-end without requiring explicit annotation or complex inference. These results confirm that status, far from being an elusive construct, can be grounded in observable patterns of group interaction.

6.2 Four Core Strategies to Navigate Power Dynamics

Recognizing status is only the first step in navigating social life. True social intelligence lies not in passively perceiving hierarchies, but in actively responding to them—leveraging one’s position, anticipating others’ actions, and strategically influencing outcomes. Across real-world interaction, success depends less on inferring what others believe, and more on predicting what they want, identifying potential allies, adjusting to power asymmetries, and using incentives to shape behavior.

6.2.1 Goal Inference

In real life, we rarely know what others are thinking—and most of the time, we don’t need to. What truly shapes social outcomes is not belief inference, but goal inference. Knowing what someone wants allows us to anticipate their actions, coordinate effectively, and respond strategically. Social behavior is driven by goals, not hidden beliefs—and understanding those goals gives us a practical advantage.

People do not infer goals by attributing mental states. Instead, they draw on memory and context. They recall how this person—or people like them—have acted before. They attend to how the current interaction unfolds, what is at stake, and how others are positioning themselves. Even

indirect knowledge—such as someone’s history, group role, or organizational agenda—can be used to reconstruct likely objectives.

Evidence has shown that goal inference is a core component of human social understanding, from everyday interaction to high-stakes strategic practice. Even young children can identify shared goals by observing patterns of joint attention and coordinated action Tomasello et al. [2005], while adults infer hidden objectives by detecting behavioral inconsistencies that signal potential deception ?. In practical domains such as negotiation, effective interaction depends not on interpreting beliefs, but on uncovering goals. *Getting to Yes* emphasizes the importance of identifying underlying interests rather than reacting to surface demands Fisher et al. [2011], and *Negotiating Rationally* highlights the value of anticipating counterpart objectives for better decision-making Bazerman and Neale [1993].

6.2.2 Coalitional Dynamics

In real social environments, power is uneven and specialization is inevitable. No individual can navigate every situation alone. People differ in access, expertise, and influence—making collaboration not just beneficial, but necessary. Strategic alliances allow individuals to amplify their reach, share risk, and gain leverage in complex environments. A well-formed coalition can shift the balance of power, buffer against exclusion, and unlock access to resources that would otherwise be inaccessible.

Evidence shows that humans are highly attuned to coalitional structure. People quickly identify group boundaries, track shifting alliances, and revise expectations based on shared interests Tajfel et al. [1971]. This sensitivity is not just perceptual—it enables strategic action. In high-stakes environments, coalition-building becomes a primary tool for navigating asymmetrical power: effective actors form alliances to gain leverage, block rivals, and influence outcomes Lax and Sebenius [1987], Bazerman et al. [2000].

6.2.3 Incentive structuring

In many social contexts, understanding others’ beliefs is neither necessary nor sufficient. What matters is the ability to influence behavior—by shaping the structure of incentives. Individuals regularly use tangible and intangible resources to alter how others act: they reward loyalty, punish betrayal, control visibility, and manage reputational cues. These strategies require no mindreading. They work by creating conditions under which certain actions become more desirable, costly, or unavoidable.

Evidence shows that humans routinely use resources—both material and social—to shape the behavior of others. In controlled experiments, individuals engage in altruistic punishment, incurring personal costs to enforce cooperation and deter norm violations without needing to infer others’ beliefs Fehr and Gächter [2002]. In real-world social interaction—especially in negotiation—these strategies become even more salient. Actors use access, rewards, and visibility to engineer behavior: offering incentives to align interests, withholding resources to exert pressure, or manipulating reputational signals to shift others’ choices Lax and Sebenius [1987], Raiffa [1985].

6.2.4 Status Navigation

As discussed earlier, status plays a central role in structuring social behavior. Here we shift focus from perceiving status to navigating it—using one’s position, and the surrounding hierarchy, to guide strategic action. This includes knowing when to assert or defer, when to align with power, and how to present oneself in ways that attract deference or trust.

Status navigation is not merely reactive. Individuals actively shape how they are perceived—by projecting confidence, managing visibility, and associating with influential others. These behaviors are not based on reading minds or decoding social cues, but on constructing a legible public image that invites deference and influence. Strategic self-presentation, not belief attribution, is the mechanism through which status is gained, maintained, or lost.

Evidence shows that individuals actively shape their social standing. People gain status not just through dominance, but by projecting competence and aligning with group goals Anderson and Kilduff [2009b]. High-status individuals exhibit greater assertiveness and social initiative, while lower-status individuals inhibit behavior in ways that reinforce hierarchy Keltner et al. [2003]. In real-world interaction, impression management plays a key role: individuals strategically modulate

their visibility and self-presentation to attract deference and signal value Leary and Kowalski [1990]. These behaviors rely less on belief attribution than on navigating social rank through observable action.

7 Theoretical Implications

7.1 Social Skills Emerge Under Power Asymmetry

Social skills are not uniformly required across all contexts. In real-world interactions, differences in power, status, or access are not anomalies—they are the norm. These asymmetries are not merely background features; they define the very conditions under which social behavior unfolds.

Crucially, it is those with less power who must exhibit the highest levels of social acuity. They are required to read intentions, anticipate shifts, manage impressions, and avoid missteps—often with minimal margin for error. In asymmetrical interactions, the cost of getting it wrong falls disproportionately on the powerless.

By contrast, individuals in positions of power face far fewer demands. Their structural position insulates them from the costs of failure while granting access to resources, alliances, and institutional leverage that allow them to shape interactions proactively. Social navigation is no longer a challenge—it becomes a landscape already tilted in their favor.

Social skill, then, is not a universally deployed capacity, but a high-stakes adaptation to structural inequality. This perspective reframes social cognition not as a symmetric interaction between equals, but as a strategic adaptation to asymmetrical social structures. It challenges prevailing accounts that treat empathy or mindreading as the primary mode of social understanding, and instead places status recognition and power navigation at the center of intelligent social behavior.

7.2 Power and Empathy: A False Dichotomy

Power is often misunderstood—as brute force, dominance, or coercion—and dismissed as something primitive or immoral. But real social power is strategic. It’s about knowing others’ goals, building alliances, avoiding threats, and playing the long game. Even among chimpanzees, those who rely only on aggression are often overthrown. The ones who stay on top are usually the best at managing relationships Waal [2007].

This kind of power navigation doesn’t exclude empathy—it can include it. Understanding others’ emotions, predicting their reactions, even showing care or deference, can all serve strategic ends. Emotional sensitivity is not the opposite of power; it can be one of its tools. What matters is not whether an agent “feels with others,” but whether that feeling helps navigate risk, maintain alliances, or defuse conflict. From this view, empathy is not a foundational module of social cognition, but a flexible component embedded in a broader system of strategic social inference.

7.3 The Degree of Social Inference and Its Robustness

Humans are generally able to perceive others’ emotional states—particularly when those states are intense, immediate, and externally expressed through facial expressions, vocal tone, or posture. However, this low-level perceptual alignment differs fundamentally from higher-order mental state inference. Attributing beliefs, intentions, or internal motivations requires reasoning about internal targets that are often ambiguous, unstable, and not directly accessible—making even coarse-grained estimates prone to error.

In naturalistic social settings, individuals frequently behave inconsistently, express beliefs they do not genuinely endorse, or act without explicit awareness of their own mental states. Such variability is not incidental but widespread, posing a fundamental challenge to any model that assumes stable and introspectively accessible mental content. Indeed, many individuals struggle to clearly articulate what they themselves believe—let alone infer the beliefs of others with reliability. As a result, high-level social inference often operates under conditions of uncertainty, variability, and limited reliability.

7.4 Social Inference as Experience-Dependent, Not Fully Innate

If social inference is grounded in memory-based mechanisms, then social competence should emerge through the accumulation and structuring of prior interactions, rather than as a fully formed capacity. Individuals interpret others' goals and intentions not by invoking a dedicated "mindreading module," but by drawing on patterns learned through past social encounters.

Over time, repeated success, elevated status, and reinforcement from peers may further stabilize these processes, generating feedback loops that enhance strategic fluency. This view reframes social cognition not as a fixed mental faculty, but as a dynamic, experience-dependent process shaped by interaction and memory.

7.5 Social Understanding Is Shaped by Group Structure, Not Just Individuals

Human interaction is often studied as dyadic—an isolated exchange between two individuals. Yet in reality, every such interaction is embedded within a broader social matrix. Status, alliances, gossip, and shared history do not merely provide cues—they actively shape interpretation, behavior, and strategy.

Social inference, then, is not merely about reading minds, but about navigating a structured landscape of power and group dynamics. Frameworks that overlook these collective constraints—such as classic Theory of Mind—fail to capture how social behavior is coordinated, regulated, and amplified beyond the dyad.

7.6 Bullying and Cliques as Misregulated Power

Behaviors like exclusion, cliques, and bullying are often dismissed as social abnormalities—malfunctions in empathy, emotional maturity, or individual temperament. But this framing is misleading. These behaviors are not signs of social failure; they are expressions of power at work.

Bullying is not just cruelty, and cliques are not just immaturity. They are strategies for controlling access, asserting dominance, and managing alliances. These patterns don't arise from a lack of social understanding—they emerge when individuals use power without accountability. When status is exploited to isolate others or manipulate group structure, what looks like dysfunction is often power operating without constraint.

And those who become targets are not merely "socially impaired"—they are often simply different in some visible way, unaligned with dominant group norms, and left without protection or coalitional backing.

8 Future Work

This paper reframes social cognition as a form of strategic navigation within asymmetric power structures, rather than as dyadic mindreading. Building on this view, future research should move beyond simplified, belief-centric models and toward a richer account of how individuals act under conditions of status, incentive, and strategic uncertainty. Key directions include modeling how people recognize social rank, predict others' goals, identify potential allies, and adaptively respond to power imbalances. These behaviors are not arbitrary—they are grounded in observable structures of deference, control, and group coordination. Progress in this direction will require experimental settings that capture real-world complexity: multiparty interaction, role-based asymmetry, and dynamic incentive landscapes.

9 Conclusion

Social cognition is often defined as the ability to infer other minds. Yet behaviors attributed to Theory of Mind are frequently error-prone, context-sensitive, and inconsistent across situations, raising doubts about the existence of a dedicated mindreading module. Instead, these inferences likely reflect memory-based social inference.

In contrast, status recognition and strategic action in asymmetrical contexts are consistently observed across species. These behaviors don't rely on imagining others' thoughts—they emerge from

navigating group hierarchies: recognizing others' goals, forming alliances, using incentives and resources to shift outcomes, and advancing one's own position.

Reframing social cognition in this way shifts the emphasis: from interpreting invisible minds to navigating visible structures. Social intelligence is recast not as a mutual exchange of internal states, but as a practical competence for operating under unequal conditions. This perspective provides a more grounded, generalizable foundation for scientific inquiry, real-world application, and computational modeling.

Declaration of LLM Usage

The authors used OpenAI's ChatGPT to assist in refining phrasing and improving clarity. All theoretical arguments and interpretations are original and authored by the researchers.

References

- C. Anderson and G. J. Kilduff. Why do dominant personalities attain influence in face-to-face groups? the competence-signaling effects of trait dominance. *Journal of personality and social psychology*, 96(2):491, 2009a.
- C. Anderson and G. J. Kilduff. The pursuit of status in social groups. *Current Directions in Psychological Science*, 18(5):295–298, 2009b.
- R. Axelrod and W. D. Hamilton. The evolution of cooperation. *science*, 211(4489):1390–1396, 1981.
- S. Baron-Cohen. *Mindblindness: An essay on autism and theory of mind*. MIT press, 1997.
- S. Baron-Cohen, A. M. Leslie, and U. Frith. Does the autistic child have a “theory of mind”? *Cognition*, 21(1):37–46, 1985.
- M. H. Bazerman and M. A. Neale. *Negotiating rationally*. Simon and Schuster, 1993.
- M. H. Bazerman, J. R. Curhan, D. A. Moore, and K. L. Valley. Negotiation. *Annual review of psychology*, 51(1):279–314, 2000.
- J. Berg, J. Dickhaut, and K. McCabe. Trust, reciprocity, and social history. *Games and economic behavior*, 10(1):122–142, 1995.
- J. Berger, B. P. Cohen, and M. Zelditch Jr. Status characteristics and social interaction. *American sociological review*, pages 241–255, 1972.
- G. Butterworth and N. Jarrett. What minds have in common is space: Spatial mechanisms serving joint visual attention in infancy. *British journal of developmental psychology*, 9(1):55–72, 1991.
- J. Call and M. Tomasello. Does the chimpanzee have a theory of mind? 30 years later. *Trends in cognitive sciences*, 12(5):187–192, 2008.
- J. Call, B. Hare, M. Carpenter, and M. Tomasello. ‘unwilling’ versus ‘unable’: chimpanzees’ understanding of human intentional action. *Developmental science*, 7(4):488–498, 2004.
- G. Di Pellegrino, L. Fadiga, L. Fogassi, V. Gallese, and G. Rizzolatti. Understanding motor events: a neurophysiological study. *Experimental brain research*, 91(1):176–180, 1992.
- P. K. Durkee, A. W. Lukaszewski, and D. M. Buss. Psychological foundations of human status allocation. *Proceedings of the National Academy of Sciences*, 117(35):21235–21241, 2020.
- P. Ekman and W. V. Friesen. Nonverbal leakage and clues to deception. *Psychiatry*, 32(1):88–106, 1969.
- N. Epley, B. Keysar, L. Van Boven, and T. Gilovich. Perspective taking as egocentric anchoring and adjustment. *Journal of personality and social psychology*, 87(3):327, 2004.
- E. Fehr and S. Gächter. Altruistic punishment in humans. *Nature*, 415(6868):137–140, 2002.

- R. Fisher, W. L. Ury, and B. Patton. *Getting to yes: Negotiating agreement without giving in*. Penguin, 2011.
- J. H. Flavell and P. H. Miller. Social cognition. 1998.
- J. H. Flavell, B. A. Everett, K. Croft, and E. R. Flavell. Young children's knowledge about visual perception: Further evidence for the level 1–level 2 distinction. *Developmental psychology*, 17(1): 99, 1981.
- T. Foulsham, J. T. Cheng, J. L. Tracy, J. Henrich, and A. Kingstone. Gaze allocation in a dynamic situation: Effects of social status and speaking. *Cognition*, 117(3):319–331, 2010.
- G. Gigerenzer and D. G. Goldstein. Reasoning the fast and frugal way: models of bounded rationality. *Psychological review*, 103(4):650, 1996.
- W. Güth, R. Schmittberger, and B. Schwarze. An experimental analysis of ultimatum bargaining. *Journal of economic behavior & organization*, 3(4):367–388, 1982.
- J. A. Hall, E. J. Coats, and L. S. LeBeau. Nonverbal behavior and the vertical dimension of social relations: a meta-analysis. *Psychological bulletin*, 131(6):898, 2005.
- B. Hare, J. Call, B. Agnetta, and M. Tomasello. Chimpanzees know what conspecifics do and do not see. *Animal Behaviour*, 59(4):771–785, 2000.
- B. Hare, J. Call, and M. Tomasello. Do chimpanzees know what conspecifics know? *Animal behaviour*, 61(1):139–151, 2001.
- R. Hastie and P. A. Kumar. Person memory: Personality traits as organizing principles in memory for behaviors. *Journal of Personality and Social Psychology*, 37(1):25, 1979.
- H. H. Hyman. The psychology of status. *Archives of Psychology (Columbia University)*, 1942.
- D. Keltner, D. H. Gruenfeld, and C. Anderson. Power, approach, and inhibition. *Psychological review*, 110(2):265, 2003.
- J. E. Koski, H. Xie, and I. R. Olson. Understanding social hierarchies: The neural and psychological foundations of status perception. *Social neuroscience*, 10(5):527–550, 2015.
- C. Krupenye, F. Kano, S. Hirata, J. Call, and M. Tomasello. Great apes anticipate that other individuals will act according to false beliefs. *Science*, 354(6308):110–114, 2016.
- D. A. Lax and J. K. Sebenius. *Manager as negotiator*. Simon and Schuster, 1987.
- M. R. Leary and R. M. Kowalski. Impression management: A literature review and two-component model. *Psychological bulletin*, 107(1):34, 1990.
- J. C. Magee and A. D. Galinsky. 8 social hierarchy: The self-reinforcing nature of power and status. *Academy of Management annals*, 2(1):351–398, 2008.
- Z. S. Masangkay, K. A. McCluskey, C. W. McIntyre, J. Sims-Knight, B. E. Vaughn, and J. H. Flavell. The early development of inferences about the visual percepts of others. *Child development*, pages 357–366, 1974.
- B. D. Mattan, J. T. Kubota, and J. Cloutier. How social status shapes person perception and evaluation: A social neuroscience perspective. *Perspectives on Psychological Science*, 12(3):468–507, 2017.
- A. N. Meltzoff and R. Brooks. Self-experience as a mechanism for learning about others: a training study in social cognition. *Developmental psychology*, 44(5):1257, 2008.
- R. E. Nisbett and T. D. Wilson. Telling more than we can know: Verbal reports on mental processes. *Psychological review*, 84(3):231, 1977.
- U. of Oklahoma. Institute of Group Relations and M. Sherif. *Intergroup conflict and cooperation: The Robbers Cave experiment*, volume 10. University Book Exchange Norman, OK, 1961.
- A. Pentland. *Honest signals: how they shape our world*. MIT press, 2010.

- D. Premack and G. Woodruff. Does the chimpanzee have a theory of mind? *Behavioral and brain sciences*, 1(4):515–526, 1978.
- H. Raiffa. *The art and science of negotiation*. Harvard University Press, 1985.
- D. Sanchez-Cortes, O. Aran, M. S. Mast, and D. Gatica-Perez. A nonverbal behavior approach to identify emergent leaders in small groups. *IEEE transactions on multimedia*, 14(3):816–832, 2011.
- D. Sanchez-Cortes, O. Aran, D. B. Jayagopi, M. Schmid Mast, and D. Gatica-Perez. Emergent leaders through looking and speaking: from audio-visual data to multimodal recognition. *Journal on Multimodal User Interfaces*, 7(1):39–53, 2013.
- M. Scaife and J. S. Bruner. The capacity for joint visual attention in the infant. *Nature*, 253(5489):265–266, 1975.
- H. Tajfel, M. G. Billig, R. P. Bundy, and C. Flament. Social categorization and intergroup behaviour. *European journal of social psychology*, 1(2):149–178, 1971.
- L. Thompson. Negotiation behavior and outcomes: Empirical evidence and theoretical issues. *Psychological bulletin*, 108(3):515, 1990.
- A. Todorov, M. I. Gobbini, K. K. Evans, and J. V. Haxby. Spontaneous retrieval of affective person knowledge in face perception. *Neuropsychologia*, 45(1):163–173, 2007.
- M. Tomasello, M. Carpenter, J. Call, T. Behne, and H. Moll. Understanding and sharing intentions: The origins of cultural cognition. *Behavioral and brain sciences*, 28(5):675–691, 2005.
- F. B. Waal. *Chimpanzee politics: Power and sex among apes*. JHU Press, 2007.
- H. M. Wellman, D. Cross, and J. Watson. Meta-analysis of theory-of-mind development: The truth about false belief. *Child development*, 72(3):655–684, 2001.
- H. Wimmer and J. Perner. Beliefs about beliefs: Representation and constraining function of wrong beliefs in young children’s understanding of deception. *Cognition*, 13(1):103–128, 1983.
- C. F. Zink, Y. Tong, Q. Chen, D. S. Bassett, J. L. Stein, and A. Meyer-Lindenberg. Know your place: neural processing of social hierarchy in humans. *Neuron*, 58(2):273–283, 2008.