

PERSPECTIVELESS CERTAINTY IN SOCIO-CULTURAL-POLITICAL BELIEFS

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Despite being ubiquitous, conflict is not inevitable. In any given dispute, other outcomes are possible. Why then does conflict grip us repeatedly despite the horrors that war veterans, movies, television, and history books promise? Undoubtedly, many factors related to the time and place of a conflict are ultimately responsible for its occurrence. Here we explore one factor that may contribute to the amazing energy that people exert in pursuing their interests, and in denying those of others.

Our premise is that perceptions of certainty are central to selfishness and conflict, and to their resolution. We first distinguish two ways that people can perceive certainty: perspectiveless certainty (C), and perspectival certainty (C_p). We then describe two domains where perceptions of certainty apply: the basic perceptual domain (BP), and the socio-cultural-political domain (SCP). After introducing these distinctions in certainty and domain, we explore two possible relations between them: covariance and independence. We suggest that people tend to adopt C independent of domain, with one outcome being selfishness and conflict in the SCP domain. We then explore two possible reasons for independence: (1) the grounding of higher cognition in the brain's perceptual systems, and (2) the social process of in-group bonding. Finally, we explore ways to induce greater C_p in the SCP domain.

1. Perspectiveless Certainty and Perspectival Certainty

By *certainty* we mean strength of belief, or what is often called *truth*. As described shortly, we avoid the use of *truth*, given its ontological and epistemological implications. Instead, we focus on the psychological construct of *certainty* and explore two forms it can take: perspectiveless certainty (C) and perspectival certainty (C_p). We use C and C_p to convey the idea that perspectiveless certainty does not entail a perspective (C alone), and that perspectival certainty does (C with a *p*).

Perspectiveless Certainty (C). Perspectiveless certainty is the idea that a belief is “true” or “the way things are” from no perspective. Consider the belief that “the world is flat.” Adopting C means viewing this belief as not dependent on perspective. Even if no person existed to perceive the Earth's surface, we view this statement as “true.” Even when people exist who perceive the Earth as flat, certainty about this belief does not depend on their perspective. We are using *certainty* here as a description of people's psychological

states—not as a philosophical or scientific claim about truth. People can view a scientifically false belief such as “the Earth is flat” with C, believing it to be true, independent of perspective.

In the preceding discussion, the word “true” is in quotation marks because historically it has been used to mean C: Things that are “true” are “true” independent of perspective. Often, claims about truth amount to claiming, with absolute authority, perspectiveless certainty about a state-of-affairs, even in the face of legitimate antithetical claims.

This notion of C has traveled under different names for millennia, including *objectivity*, *realism*, and *rationality*. Until the twentieth century, a primary goal of philosophy has been to address the nature of “objective truth.” Since the foundational contributions of sixteenth to eighteenth century rationalist and empiricist epistemologists, many philosophers have remained concerned with C. How do we arrive at C? How we can demonstrate that we have arrived at it?

The sciences have also reflected similar assumptions about C. In frameworks such as logical positivism, scientific discoveries are viewed as capturing C about the natural world. Perspective has often found its way into scientific thinking, as in Albert Einstein’s theory of relativity and the Heisenberg uncertainty principle. Modern scientists are highly aware that any observation is theory dependent, and that many possible theories explain any finding.

Perspectival Certainty (C_P). Perspectival certainty is the idea that the certainty of a belief reflects the perspective of the person holding it. Even when beliefs are held with high certainty, the importance of perspective is appreciated. Today, when we believe that “the Earth is round,” we may still appreciate that this belief reflects our current perspective, perhaps because people have previously thought otherwise. We could view “The Earth is round” with C. Alternatively, people can realize that this belief reflects their personal, historical, and cultural perspective. As a result, people can appreciate that others having a different perspective could hold a different belief with equally high certainty.

Western philosophy since the nineteenth century has increasingly acknowledged the dependence of certainty on perspective. Many philosophers, notably Frederick Nietzsche,¹ John Dewey,² Maurice Merleau-Ponty,³ and Martin Heidegger⁴ have raised fundamental questions about C and the aspiration to it. Feminist theorists have extended this work.⁵ For these thinkers, certainty about anything is always a function of perspective, where perspective includes personal history, cultural context, bodily experience, time, location, and many other factors. According to these views, establishing knowledge free of perspective is an impossible task, given that knowledge always reflects the perspective used to produce it. Further, these views argue that attempting to develop perspectiveless knowledge reflects a philosophical perspective that assumes this is possible.

2. Two Domains Where Beliefs about Certainty Apply

We could explore perceptions of certainty in a wide variety of domains. Here we focus on two that appear relevant to exploring how certainty contributes to selfishness and conflict: the basic perceptual domain and the socio-cultural-political domain.

The BP domain (BP). People have powerful perceptual systems that provide them with information about their environments and internal states. Sensory systems for vision, audition, touch, taste, and smell tell us about the external world, whereas introspective systems for emotion, motivation, and cognition tell us about the internal world. In neither case do these systems provide complete accounts. Sensory systems are only sensitive to designated ranges of stimulation, and introspective systems are notoriously limited in their access to our internal workings.

As much scientific research has shown, these systems produce basic forms of perceptual experience. The visual system produces experiences of shape, color, and motion. The auditory system produces experiences of pitch, volume, and timbre. Although the experience of fundamental perceptual properties reflects experience to some extent,⁶ these experiences are largely universal across cultures, reflecting a common human biology. Any person having normal vision, who looks at a round red object, would see and believe that something of that color and shape exists in the world. Training and education are not necessary for the development of BP systems and the low-level beliefs that they produce. As long as these systems receive normal input during development, they largely develop independently of individual experience and culture.

Our discussion of the BP domain focuses on *early* perceptual processing. We do *not* include late perception, which is subject to conceptual influences. Our later discussions of certainty depend on the relative absence vs. presence of conceptual processes. To disentangle conceptual influences from sensory processing can be difficult, if not impossible, given that higher cognitive systems reach far into early perception.⁷ In general, though, early perceptual systems appear less influenced by individual-specific and culture-specific learning factors than are late perceptual systems.

The SCP domain. In contrast, we assume that the SCP domain is influenced heavily by individual-specific learning factors. Each person's developmental, social, and cultural history fundamentally shapes his or her social knowledge about stereotypes, relationships, and ambitions. These same factors also have tremendous impact on a person's cultural knowledge about conventions, rituals, explanatory systems, and myths, and also on their political knowledge about rights, responsibilities, laws, individuals, governments, and countries.

Whereas our beliefs in the BP domain primarily reflect biological constraints, our beliefs in the SCP domain primarily reflect experience (although biological factors also contribute). Knowledge acquired from experience determines how we operate in the SCP domain. People's knowledge about the SCP domain varies widely. Depending on a person's history, different knowl-

edge develops, causing differences in how people perceive, comprehend, and act in the SCP domain. Notably, this is the opposite of the BP domain, which exhibits a much more universal pattern.

3. Possible Relations between Certainty and Domain

We next explore two possible relations between certainty and domain: covariance vs. independence.

Covariance. As Figure 1 illustrates, covariance occurs when people experience C about the BP domain, but experience C_p about the SCP domain. In the BP domain, people intuitively adopt C . If they see an object visually, they believe with high certainty that an object is actually there. Further, they believe that anyone else who looked would also believe it is there, and that it would be there even if no one perceived it.

	C	C_p
BP	x	
SCP		x

Figure 1. One form of covariance between certainty and domain.

We do *not* assume that everyone *categorizes* perceived entities the same way, given that categorization depends on conceptual systems. Instead, we only assume that C in the BP domain applies to *early perceptual experience*. When people perceive something, they believe that something is present, and that its presence exists independent of perspective.

We *not* suggesting that early perception is actually perspectiveless. Early perception is heavily perspective-dependent. For example, the different sensory systems of different species produce different perceptual experiences. Similarly, context has profound effects on perception. Our claim is that people *act* as if early perception is perspectiveless. When early perceptual systems detect something, people believe it to be present with a high degree of C .

This intuitive naïveté may serve people well. Given that, most human beings share the same BP systems, if one person senses something in a setting, other people are likely to sense it as well. On sensing something, it may be socially useful to conclude with certainty that the sensed entity exists independent of perspective. By making this inference, a perceiver is likely to make further correct inferences about what other people in the same setting experience.

As Figure 1 further illustrates, the covariance hypothesis proposes that people adopt a different view toward certainty in the SCP domain. Here they recognize that their beliefs reflect their perspective. They further recognize that other people's perspectives may cause them to see the SCP domain differently, but to be no less certain about their beliefs.

The covariance hypothesis assumes that people perceive certainty as increasingly perspective-dependent as the domain becomes increasingly less tangible. For the tangible world of perceptual experience, people view the certainty

they experience as relatively perspective-free. For the less tangible world of SCP relations, people view their certainty as increasingly dependent on perspective.

	C	C _P
BP	x	
SCP	x	

Figure 2. One form of independence between certainty and domain.

Independence. Figure 2 illustrates the form of independence between certainty and domain of focal interest here. In this form, people experience C not just about the BP domain but also about the SCP domain. Instead of realizing that their certainty about a SCP belief reflects their perspective, people believe that their certainty is perspective free—this is “the way it is.” As a result, people’s SCP reality takes on the same perspective-free certainty as their BP reality. Examples include the beliefs that only one god can confer salvation and that a true marriage can only be heterosexual.

	C	C _P
BP	x	
SCP		x

Figure 3. A second form of independence between certainty and domain.

We see this perspective-free stance toward the SCP domain everywhere: in politics, churches, mosques, synagogues, schools, gangs, academic circles, and families. We believe that this stance contributes considerably to selfishness and conflict. Not seeing the perspective-dependence of our SCP views prevents us from appreciating the validity of different views. Conflict ensues when people attempt to impose what they mistakenly see as perspective-free views on other people.

Notably, this problem does not generally arise in the BP domain. Again, it generally appears useful that people perceive the environment similarly and view it as perspective free. Notably, selfishness and conflict do not arise here.

Figure 3 illustrates a second possible form of independence, one that strikes us as even more sophisticated than covariance. Here, people recognize that beliefs across all domains depend on perspective. This view may largely result when people scrutinize their experience and beliefs carefully. Becoming aware of how one’s body and brain influence perception may be a critical.

4. Possible Reasons for Adopting C in the SCP Domain

Here we focus first on a cognitive mechanism that may produce C in the SCP domain, and then on a social mechanism.

Grounding of the conceptual system in perceptual systems. Increasing empirical research indicates that knowledge heavily utilizes perceptual systems for representational purposes. When representing knowledge about an entity, event, or mental state, people appear to use *simulations* of their perceptual

experience with these entities. For example, when people represent knowledge about *apples*, they imagine apples look, feel, and taste. Notably, the same perceptual systems that operate in the BP domain represent these simulations. Some even make arguments for the importance of simulation in abstract concepts.⁸

Knowledge involves much more than simulations of prior experience.⁹ It also relies heavily on the use of the same mechanisms that operate in the BP domain. In general, higher cognition appears to rely on the brain's modality-specific systems. We can find considerable amounts of evidence for this conclusion in cognitive and social psychology, and in cognitive neuroscience.¹⁰

This conclusion leads to our first speculation about why people adopt C in the SCP domain. We suggest that people intuitively generalize C about experience in the BP domain to the SCP domain via the common perceptual systems that construct representations in both domains. We make the following argument:

Premise 1. C is associated with BP experience.

Premise 2. BP mechanisms are used to represent SCP beliefs

Conclusion. C becomes associated with SCP beliefs.

Because BP systems implicitly and automatically engender C, they also engender C during the representation of SCP beliefs. SCP beliefs are less abstract and more concrete than we might have imagined. As a result, though, we fail to see how perspective-dependant they are.

An intriguing finding reviewed by Marcia K. Johnson supports this proposal.¹¹ She found that the amount of perceptual and contextual detail accompanying a memory tends to correlate positively with the certainty that the event actually occurred. BP information in a memory increases its certainty, consistent with our proposal.

In-group bonding. A second factor may also produce C in the SCP domain: the social mechanism of in-group bonding. Much research on social psychology has shown that belonging to a social group induces powerful cognitive forces in individuals.¹² For example, members in the same group see other members more positively than they see the members of "out" groups. Similarly, in-group members tend to treat each other better than they treat out-group members.

We propose that groups induce C about shared SCP beliefs. A group's members do not agree on everything. Yet often they share many fundamental SCP beliefs, such as beliefs in deities, authority relations, and marriage practices. Most importantly, adopting C about a group's SCP beliefs strengthens both the group and its individuals.

Groups become powerful and effective when their members adopt C about shared SCP beliefs. When members believe that the group's beliefs have C, they are less likely to question them. Further, strong conviction in these beliefs may often give individuals a sense of power that is highly motivating and that causes them to act, and even sacrifice, for the sake of the group. If individu-

als adopted C_p toward these beliefs, they might be more likely to diverge from them, and be less likely to act on them on behalf of the group.

Conversely, individuals also benefit from adopting C towards SCP beliefs. Doing so signals an individual's commitment to the group. In return, the group may become committed to the individual, doing its best to ensure the individual's safety, needs, and ambitions. Because "going it alone" in the world can be dangerous, affiliating with a group can be beneficial to survival and success. Adopting C towards SCP may be one key step towards establishing this bond. The cost, though, is loss of the ability to appreciate the certainty that individuals in other groups feel towards their SCP beliefs. In turn, this may make it easier to initiate aggression and produce conflict.

Group formation may be a fundamental organizing principle in many animal species because of the evolutionary advantages it confers on survival, resource gathering, and reproduction. Powerful biological factors may be at play in the group processes that induce C in SCP.

5. Possible Ways to Induce C_p

To the extent that the mechanisms producing C are under genetic control, most individuals possess them, and they operate relatively automatically and implicitly. But reining them in and operating on the basis of C_p appears possible, given its presence in some individuals and groups. Here we explore several possible ways of inducing greater C_p .

Correlational analyses of C vs CP . What is it about some individuals that make them adopt either C or C_p towards SCP? Do some biological, developmental, and personality factors play a role? What about education, life style, and occupation? Similar studies could be performed of groups that exhibit either C or C_p toward SCP, including religions, cultures, and institutions. Do some historical factors, belief systems, practices, and organizational structures predispose a group towards C vs. C_p ?

Developing interventions. Once we have some sense of the factors that produce CP in SCP, developing interventions that recreate those factors in individuals and groups who exhibit C might be possible. Conversely, once we have some sense of the factors that produce C about SCP, developing interventions that weaken those factors might also be possible.

Cognitive interventions could aim at helping individuals recognize that their SCP beliefs inherently reflect C_p . Similarly, social interventions, especially in areas of conflict, could aim to engender increasing awareness that C contributes to conflict and that adopting C_p could reduce it. Obviously, everyone knows this, and putting it to work effectively is difficult. To develop new, more powerful forms of this intervention appears essential.

One good example is The Ulster Project. This organization invites Roman Catholic and Protestant youths from Northern Ireland on international trips to unfamiliar settings. There, they get to know each other personally, away from the backdrop of their familiar social struggle, and they discuss their

perspectives. Seeing how C_p can apply to SCP beliefs appears to be a crucial component of successful conflict resolution.

In conclusion, we believe that the only appropriate certainty in the SCP domain is one that minimizes selfishness and conflict. The aspiration to C in the SCP domain is a contributor to these problems. Such aspirations yield inappropriate declarations of “how things are” in domains where tremendous diversity does and should exist. We contend that human beings have an ethical responsibility to adopt C_p in the SCP domain out of respect for life. Out of this respect will grow the world in which we would all like to live.

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Notes

1. Friedrich Nietzsche, *On the Genealogy of Morals*, trans. Walter Kaufmann (New York: Vintage Books, 1989); *Beyond Good and Evil*, trans. Walter Kaufmann (New York: Vintage Books, 1989).
2. John Dewey, *The Later Works, 1925–1953*: vol. 1, 1925, ed. Jo Ann Boydston (Carbondale, Ill.: Southern Illinois University, 1981).
3. Maurice Merleau-Ponty, *Phenomenology of Perception*, trans. Colin Smith (New York: Routledge Classics, 1962).
4. Martin Heidegger, *Being and Time*, trans. John Macquarrie and Edward Robinson (Oxford: Oxford University Press, 1967).
5. Lorraine Code, *What Can She Know? Feminist Theory and the Construction of Knowledge* (Ithaca, N.Y.: Cornell University Press, 1991); Sandra G. Harding, *Whose Science? Whose Knowledge?: Thinking from Women's Lives* (Ithaca, N.Y.: Cornell University Press, 1991); Evelyn Fox Keller, *Reflections on Gender and Science* (New Haven, Conn.: Yale University Press, 1985); Helen E. Longino, *Science as Social Knowledge: Values and Objectivity in Scientific Inquiry* (Princeton, N.J.: Princeton University Press, 1990); and A. Wylie, “Rethinking Objectivity: Nozick’s Neglected Third Option,” *International Studies in the Philosophy of Science*, 14 (2000), pp. 5–10.
6. Jeffrey L. Elman, *Rethinking Innateness: A Connectionist Perspective on Development* (Cambridge, Mass.: MIT Press, 1996).
7. R. E. Crist, W. Li, and C. D. Gilbert, “Learning to See: Experience and Attention in Primary Visual Cortex,” *Nature Neuroscience*, 4 (2001), pp. 519–525; and A. G. Samuel, “Lexical Activation Produces Potent Phonemic Percepts,” *Cognitive Psychology*, 32 (1997), pp. 97–127.
8. Lawrence W. Barsalou and K. Wiemer-Hastings, “Situating Abstract Concepts,” *Grounding Cognition: The Role of Perception and Action in Memory, Language, and Thought*, eds. Diane Pecher and Rolf Zwaan (New York: Cambridge University Press, 2005), pp. 129–163; and George Lakoff and Mark Johnson, *Metaphors We Live By* (Chicago, Ill.: University of Chicago Press, 1980).

9. Lawrence W. Barsalou, "Perceptual Symbol Systems," *Behavioral and Brain Sciences*, 22 (1999), pp. 577–600; and "Abstraction in Perceptual Symbol Systems," *Philosophical Transactions of the Royal Society of London: Biological Sciences*, 358 (2003), pp. 1177–1187.

10. Lawrence W. Barsalou, "Situated Simulation in the Human Conceptual System," *Language and Cognitive Processes*, 18 (2003), pp. 513–562; Lawrence W. Barsalou, P. M. Niedenthal, A. K. Barbey, and J. A. Ruppert, "Social Embodiment," *The Psychology of Learning and Motivation*, vol.43, ed. B. H. Ross (San Diego, Calif.: Academic Press, 2003); and A. Martin, "Functional Neuroimaging of Semantic Memory," *Handbook of Functional Neuroimaging of Cognition*, eds. R. Cabeza and A. Kingstone (Cambridge, Mass.: MIT Press, 2001), pp. 153-186.

11. M. K. Johnson, "Individual and Cultural Reality Monitoring," *The Annals of the American Academy of Political and Social Science*, 560 (1998), pp. 179–193.

12. Michael A. Hogg and R. Scott Tindale, *Blackwell Handbook of Social Psychology: Group Processes* (Boston, Mass.: Blackwell, 2002).