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Cognition and Society: Prolegomenon to a Dialog

Thom Scott-Phillips,[a] Daniel Nettle[b]

[a]*Department of Cognitive Science, Central European University*
[b]*Population Health Sciences Institute, Newcastle University*

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Societies are clearly made up of individuals and individual minds—but how? How do many interacting minds generate and constrain the group-level phenomena that are collectively called "society"? Or is it better to think of generation and constraint from the other direction, that the kind of minds people have depends on the societies they belong to? These questions are basic to the original and putative goals of cognitive science as a scholarly enterprise, touching on many familiar and persistent dualities: reductionism and holism; micro and macro; nature and society. Yet, the study of mind is currently pursued rather independently from the study of society. For the most part, the cognitive sciences study individual and interactive phenomena, such as communication, decision making, political attitudes, and moral reasoning. They also default toward the universal (Levinson, 2012). The social sciences, meanwhile, study collective phenomena, such as languages, economies, democracies, technologies, institutions, and laws; and they are chary of assuming generalizability across history or contexts. The differences between the cognitive and social sciences in methodological procedures and theoretical vocabularies are often profound, and this may be partly justified by their different levels of enquiry. However, these differences make it hard to discern the important implications each body of knowledge must have for the other. Too often, we seem to be on one side or another of a large divide.

How to build more substantive bridges is a puzzle. Academic rewards work mostly in the direction of narrow specialization. The deep expertise acquired in this way is essential and rightly valued very highly, but it also generates silos. Some scholars pioneer broad frameworks by starting from their own domain of expert knowledge and building outwards. This can be highly productive, but it also runs the risk of being cavalier, or even imperialistic, in that it may not link deeply with what is already known and discussed on the other side.

In our view, if integration and consilience are the main goal, then the first, most pressing question should not be (for instance), "How can moral cognition explain legal systems?," but

Correspondence should be sent to Daniel Nettle, Population Health Sciences Institute, Newcastle University, Newcastle NE2 4HH, UK. E-mail: daniel.nettle@ncl.ac.uk

rather, where does what we already know about moral cognition interface with what legal scholars already know about legal systems? Likewise, the question should not be, "What happens in the brain when people visit an art gallery?," but rather, how does what we know about the neuroscience of aesthetics and interpretation interface with what art theorists have debated and established within that domain? Addressing such questions is, we believe, critical both for the future advancement of cognitive science in its own right, and to demonstrate the broader relevance of a cognitive perspective for the human sciences, and for society at large.

Here are three specific examples of domains in which the cognitive–societal divide is of paramount importance, with the first case being the one with the deepest history. This is of course not an exhaustive list. Our goal with these examples is not to describe how particular fields might or should proceed, but rather to highlight the diversity of issues that under the shared umbrella of "cognition and society." It is plausible to us that lessons learned in one or another domain will generalize to others.

1. Communication and languages

Sometimes called the "problem of linkage" (Kirby, 1999, p. 19), the question of how language use (an individual phenomenon) links with language structure (a collective phenomenon) is an established and fundamental problem in language science. This fact alone marks out the language sciences as further ahead than other domains with respect to the cognitive–social divide. However, while several ongoing research programs speak to the issue (e.g., Adgar, 2019; Gibson et al., 2019), broad consensus is not yet achieved. Different theoretical schools of thought have clear and different—sometimes radically different—candidate answers.

2. Law

Bodies of law transcend and outlast the desires, intentions, or interests of any particular individual. That, indeed, is their point. Nonetheless, they must be somehow connected to individual senses of right and wrong, acceptable and unacceptable—but how exactly? To what extent do existing legal systems satisfy Oliver Wendall Holmes' demand that "The first requirement of a sound body of law is that it should correspond with the actual feelings and demands of the community" (cited in Giffin & Lombrozo 2016)? Large literatures exist on moral judgment and punitive sentiment, but these are only patchily connected to legal scholarship. Issues of the appropriate direction of causal arrow loom large here: Do people know what is right and wrong because the law tells them, or do they invent the laws that correspond to their sense of right and wrong?

3. Inequalities

Ecological, technological, and demographic factors systematically generate inequalities in society, often dramatically so. These inequalities are accepted and sometimes institutionalized, at times with the apparent consent of those who are disadvantaged by them. Loose

claims that humans are "naturally egalitarian" or "naturally selfish" do not hold up. Rather, people accept some kinds of inequalities as moral and appropriate, and others as wrongs that need to be collectively righted. Cognitive appraisals matter: inequalities are perceived as more acceptable if they are related to variation in effort; if the people involved are perceived as fundamentally different; and in the absence of common shared threats (Nettle & Saxe 2020; Starmans, Sheskin, & Bloom, 2017). These regularities might explain, though also might reflect, historical changes in inequality, as well as the rhetorical strategies employed by those who seek to increase or reduce it.

How to best address these diverse issues, and hence create healthy connective tissue across the cognitive–societal divide, will vary on a case-by-case basis. One approach will be through careful empirical work, with clear methodological and thematic roots on both sides (Astuti, Solomon, & Carey, 2004 is a fine example). Beyond this, we would like to advocate for a particular kind of conversation, or dialogue, between cognitive and social scientists, targeted at the mutual identification of open issues. Our question is not, "Who is right?" The questions are rather, "How do the research agendas, findings and insights on one side connect with those on the other?," "Are these findings aligned, or are there tensions to be identified and addressed?," and "Do these tensions suggest fruitful new areas of enquiry, or important open questions, for either or both sides?"

Developing good answers to these questions is likely to have many potential payoffs. First, answering these questions will directly advance understanding in its own right. Second, it will increase returns on existing, specialized knowledge. Third, it is likely to catalyze new, synthetic research programs helping to link cognition and society in a substantive way. More broadly, we are not calling for a revolution, but revitalization of dialogue as an important tool of scientific progress. Cognitive science itself has shown that human reason is most productive when used in interaction (Mercier & Sperber, 2017; Scott-Phillips, 2022). We are advocating for the application of this insight to the identification of key questions for future research programs, in a domain that should be fundamental for cognitive science but is in fact relatively neglected.

The time is now. Demands for deeper ideas and integration across (sub)disciplines are historically common in the human sciences, but have grown stronger and more urgent in light of the ongoing "replication crisis" in psychology and related fields. Many contributions to present debate about the future of the human sciences have emphasized the need for better foundations and transdisciplinary synthesis, alongside essential methodological reform (e.g., Eronen & Bringmann, 2021; Flis, 2022; Scheel, 2022). Good faith dialogues across the cognitive–social divide will help to meet this demand directly.

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References

Adgar, D. (2019). *Language unlimited*. Oxford University Press.

Astuti, R., Solomon, G. E., & Carey, S. (2004). Constraints on conceptual development: A case study of the acquisition of folk biological and folk sociological knowledge in Madagascar. *Monographs of the Society for Research in Child Development*, *69*(3), 1–135.

Eronen, M. I., & Bringmann, L. F. (2021). The theory crisis in psychology: How to move forward. *Perspectives on Psychological Science*, *16*(4), 779–788.

Flis, I. (2022). The function of literature in psychological science. *Review of General Psychology*, *26*, 146–56.

Gibson, E., Futrell, R., Piantadosi, S. P., Dautriche, I., Mahowald, K., Bergen, L., & Levy, R. (2019). How efficiency shapes human language. *Trends in Cognitive Sciences*, *23*(5), 389–407.

Giffin, C., & Lombrozo, T. (2016). Wrong or merely prohibited: Special treatment of strict liability in intuitive moral judgment. *Law & Human Behavior*, *40*(6), 707–720.

Kirby, S. (1999). *Function, selection & innateness: The emergence of language universals*. Oxford University Press.

Levinson, S. C. (2012). The original sin of cognitive science. *Topics in Cognitive Science*, *4*(3), 396–403.

Mercier, H., & Sperber, D. (2017). *The enigma of reason*. HUP.

Nettle, D., & Saxe, R. (2020). Preferences for redistribution are sensitive to perceived luck, social homogeneity, war and scarcity. *Cognition*, *198*, 104234.

Scheel, A. M. (2022). Why most psychological research findings are not even wrong. *Infant & Child Development*, *31*, e2295.

Scott-Phillips, T. (2022). Human nature & the open society. In C. Royer & L. Matei (Eds.), *Open society unresolved: The contemporary relevance of a contested idea*. CEU Press.

Starmans, C., Sheskin, M., & Bloom, P. (2017). Why people prefer unequal societies. *Nature Human Behaviour*, *1*(4), 0082.