

I Think, Therefore IR? Psychology, Biology and the Notion of Praxis

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Introduction

In his spirited defence of a thick constructivist approach to the study of international relations, Friedrich Kratochwil repeatedly invites us to adopt the perspective of the first-person plural. Without a conception of ‘we’, there is no language or discourse, no possibility for authority or justice, no collective sense of right and wrong. But how does the constructed ‘we’ relate to the psychological and biological agent, ‘I’, who is engaged in practice?¹

For Kratochwil, ‘we-intentionality’ cannot be reduced to the antecedent beliefs or feelings of individuals. For as long as members of a group accept the legitimacy of decisions made on their behalf, groups can have ‘beliefs’ that previously were not held by any of the members individually. Collective intentionality presupposes a conception of the ‘we’ to which the individual attaches some value or meaning (Kratochwil, 2018: 26).

At first glance the argument is compelling enough, yet it begs the question of the origins of the group in the first place. If, as Kratochwil (Kratochwil, 2018: 28) is quick to assert, the Hobbesian contract cannot emerge in a state of nature characterized by generalized distrust, are we to start our analysis of social organization from the assumption of generalized trust and the absence of any individuals motivated to abuse it for egoistic purposes?

¹ The following discussion blends two aspects of the first-person singular. A fuller discussion would address the relationship of the ‘I’ to the ‘me’, which George Herbert Mead understood to be the self after it has internalized the views of others (Mead and Morris, 1967).

A related objective is to draw our attention to the ways in which language not only describes but also constitutes the social world. Most social facts are reproduced via concepts that find their articulation in language and derive their meaning from malleable practice. The implications for social science epistemology are significant. '[E]specially in the social world, the question of what "is" ("this note is legal tender") runs from the mind to the world (mind dependence), instead of the other way around as conceptualized by positivist "theories"' (Kratochwil, 2018: 7). Yet it is worth reminding ourselves that the mind is a property of individuals, even as Kratochwil takes pains to point out, we can recognize collective intentionality without postulating something like a collective mind.² Thus, his assertion that a concern with a coherent account – which avoids the two extremes of reducing collective intentionality to the aggregate of individual intentionality or the assumption of a disembodied group mind – is an instance of misplaced concreteness seems beside the point as it does not answer the question of how 'we' intentionality is formed in the individual mind (Kratochwil, 2018: 26). The question, as Kratochwil (2018: 36) himself puts it, is how emotions and feelings are related to social practices, in particular language.

With no claims to providing a coherent answer to these conundrums, in what follows I want to explore the link between the first-person singular and plural – the 'I' and the 'we' – from the perspective of contemporary work in biology, cognitive psychology and neuroscience. In doing so, I suggest that Kratochwil's thick constructivism at once is too radical and too conservative. It is too radical because it neglects the fact that the feelings, sentiments and emotions that provide the motivations for much of the behaviour he seeks to explain are not 'floating freely' (to borrow a term from a proponent of a rather 'thin' constructivism) but are embodied in and experienced by biological agents. Someone has to 'feel' the rights and wrongs that give rise to the discourse on grievances central to meaning-making in society, and feeling is a function of biology. At the same time, widespread variation within and among cultures – in particular with respect to when and how biological agents experience feelings such as anger, guilt, shame or pride – allows us to dispense with crude claims of biological determinism. Biology and culture are mutually implicated. Each constrains and conditions the effects of the other.

Reminding ourselves that sentiments and feelings are embodied in biological agents directs our attention to the fact that human biology is the product of genetic adaptations to environmental and reproductive challenges faced by our forebears, some of which influence our behaviour. At first glance

² For an argument that communities of praxis are characterized by a form of collective cognition, see Adler (2019).

perhaps ironic, it is our emerging understanding of the genetic bases of social behaviour that leads me to suggest that Kratochwil's constructivism may be too conservative. Though some elements of culture likely are the product of long-term evolutionary adaptations to the physical environments within which humans have lived, other evolutionary adaptations likely were induced by culture. Less widely appreciated is the fact that variation in individual behaviour can be the result of biological changes induced by the individual's social environment. Understood either as a form of praxis or as the more general category to which praxis belongs, culture can change the biology of individual human beings in ways that produce non-trivial behavioural patterns. Moreover, evidence is mounting that these biologically produced behavioural effects can persist across generations.

Though a comprehensive treatment of the various strands of research is not possible here, in what follows I summarize some of the relevant findings in contemporary psychology, neuroscience and evolutionary biology and then turn to the ways in which the links between the 'I' and the 'we' suggest a much broader research agenda for the sort of 'thick' constructivism championed by Kratochwil.

The psychology of feelings, cognition and behaviour

Emotions, and their relationship to linguistic concepts, which are collective representations and thus the stuff of constructivism, are central to Kratochwil's conception of the 'we'. In contrast to environmental pressures or institutional constraints that may compel cohesion among individuals with similar interests from the outside, Kratochwil's 'language dependent feelings' act as a sort of social glue that bonds the group from within: 'feelings of remorse, shame, admiration, and dignity have to do with *who* and *what we are*' (Kratochwil, 2018: 36). But how do emotions relate to individual behaviour and how does group membership lead to individual feelings of remorse, shame, admiration and the like?

In both popular and scholarly discussions, emotional behaviour frequently is juxtaposed to rational decision-making.³ Conceiving feelings to be distinct from cognition, adherents to this position regard emotions as hindrances to rational responses in situations of choice. The belief was evident in the answer Donald Trump's ghost writer provided when asked about the former president's cognitive style: '[h]e feels things and he thinks that the things he feels are thoughts' (Davis et al, 2017). When it comes to leaders, we fear

³ The following discussions of cognition, evolution and genetics summarize more extensive arguments found in Davis and McDermott (2020).

the ‘hot head’, preferring individuals who can ‘keep cool’ under stress (see, e.g., [Buckley and Ramzy, 2017](#)).

The juxtaposition of emotional and rational – or indeed reasoned – decision-making no longer holds sway among psychologists and neuroscientists. Although certain intense emotions can confound productive decision-making (albeit often in quite systematic fashion), in most situations emotions are essential to sound, indeed rational, decision-making.⁴ Without emotions, the notion of ‘preference maximization’ makes no sense. For what is a preference if not an affective attachment to one option in the light of others?

Rational choice models of decision-making routinely discuss the ordering of preferences with reference to the ‘utility’ some outcome would provide. Yet in Bernoulli’s original articulation of the concept, utility was closely linked to the pleasure derived from a prospective outcome (see [Bernoulli, 1954](#)). Eschewing any reference to emotions, such models are at a loss to provide a plausible explanation for the origin of preferences. Some assert that preferences reflect the obvious and unmediated implications of the actors’ environment. Thus, for neo-realists, a preference for ‘security’ replaces the emotion of ‘fear’ as the ‘rational’ response to anarchy ([Waltz, 1979](#)). Meanwhile, neoliberal theorists either postulate some universal interest – such as ‘welfare’, usually reduced to wealth – with preferences referring merely to an ordering of options on the basis of a subjective assessment of associated expected net benefits, or they relegate actor preferences to a domain that is defined as beyond the scope of their theory (for good discussions of the issues, see [Legro \[1996\]](#) and [Moravcsik \[1997\]](#)).

Advances in psychology and neuroscience support the link between emotions and preferences. Moreover, the evidence is consistent with the proposition that emotions are prior to preferences and that preferences do not require prior cognitive assessments of utility. Rather, preferences are the product of our evolutionary and personal developmental history.⁵ Although observable variation of preferences within groups provides evidence that the environment’s effects are not strong enough to produce strict uniformity, they are nonetheless significant.

Preferences imply emotions, and emotions, it seems, do not require cognition. The converse, however, is not the case. When emotional faculties are seriously impaired, individuals are incapable of making decisions on the basis of the kind of cost–benefit calculations central to rational choice models. The original studies were clinical in nature and based on patients with damage to the brain’s ventromedial prefrontal cortex. These patients

⁴ For an extended discussion of the findings outlined here, see [McDermott \(2004\)](#).

⁵ See [Zajonc \(1980, 1984\)](#), [Kunst-Wilson and Zajonc \(1980\)](#) and [Zajonc and Markus \(1982\)](#). Zajonc’s arguments are not without their critics (see, e.g., [Lazarus \[1982, 1984\]](#)).

frequently were unable to access and integrate emotions, an impairment that inhibited their ability to negotiate the decisions required in daily life. Without emotions to guide their decisions, otherwise intelligent persons with no impairments of memory, alertness or language skills often engage in a form of infinite regress, calculating and re-calculating the advantages and disadvantages of various choices, unable to settle on any particular option. Moreover, if they do decide, a seeming inability to envision the future consequences of current choices leads these individuals to opt for short-term gratification at the expense of longer-term gain (see [Damasio, 1996](#); [Damasio et al, 1994](#); see also [Bechara et al, 1997, 2000](#)). The overwhelming wealth of evidence led Damasio and his colleagues to conclude that emotions are a precondition, rather than a hindrance, to effective reasoning ([Vogel, 1997](#)).

If emotions are central to understanding how we reason and choose, then understanding the social origins and effects of different types of emotions on preferences, decision-making and social behaviour is an area where constructivists and psychologically oriented scholars of international relations and foreign policy should collaborate. Both psychology and constructivism share an interest in understanding how emotions influence behaviour, in particular how they serve as a form of social glue among individual members of a group. Each perspective provides an important component to the enterprise.

Aided by cognate research in the field of neuroscience, psychologists have developed a fuller understanding of the structures and processes of the human brain. In addition to the interplay between emotions and cognition that characterizes human brains in general, we now have a better understanding of the way the individual human brain develops in response to its social environment, the latter constituting the central focus of constructivist research.

Evolutionary legacy

Our brains are the product of evolution and represent functional adaptations to the challenges faced by our forebears. And from an evolutionary standpoint, it makes sense that the brain would privilege emotions – such as fear or lust – over higher-order abstract reasoning. To put it simply, the survival of the individual and his or her genes depended on it. Advances in neural imaging have helped us better understand the spatial biology of the brain and how emotions relate to cognition. Neural fibres (efferents) from the peripheral senses flow more or less directly to the amygdala, the seat of the brain's emotional processing. The amygdala serves as a sort of 'gatekeeper', deciding which stimuli should be sent to the prefrontal cortex for further analysis. Rational analysis only takes place if the person feels emotionally and physically secure ([LeDoux, 1996](#); [Anderson and Phelps,](#)

2000; Nader et al, 2000; LeDoux, 2012). Again, this makes sense from an evolutionary perspective. Deliberation is not conducive to survival when the latter depends on fight-or-flight decisions. The primacy of affect over reason explains why the fear produced by unexpected noises often precedes the identification of the source of the noise (Damasio, 1996: 159).

Emotions also affect our memory in ways that structure subsequent perception and behaviour. Our memories of emotional reactions often are distinct from our memories of the details of the situation that originally produced them. Thus, we often know we didn't like something or someone, even if we can't remember why (Bargh, 1984). In the field of international affairs, we can expect strong emotions produced by an experience with a particular leader or country to be enduring and difficult to shake, even when the current situation no longer resembles the original encounter. Such mechanisms may also extend to our assessments of foreign policy strategies. If, for example, the failure of a particular strategy gave rise to strong emotions in the past, the mere thought of such an option may evoke an emotional response before anyone has had time to deliberate its suitability to a contemporary challenge. Damasio postulates that sensory information is physically embodied in the form of emotions. These 'somatic markers' influence subsequent decisions by providing a feeling for who or what is likely to produce pleasure or pain (Damasio, 1996).

Such findings relate to long-standing subjects of interest to students of international relations and foreign policy. Take, for example, the well-documented phenomenon of analogous reasoning by foreign policy decision-makers (May, 1973; Neustadt and May, 1986; Khong, 1992). Researchers have not only found that individuals gravitate towards analogies of events that were salient in their political youth, but also documented strong cohort effects. Thus, members of the Vietnam generation share a certain collective memory that is different from those who came of age during the Gulf War or post 9/11. The somatic marker hypothesis would suggest that strong memory of political events in early adulthood is produced not only because these were vivid and novel, but also because they aroused strong emotions. The impact of analogies is enhanced as the memory of these events revives the original emotional response.

From culture to cognition

Applying insights from cognitive psychology to the study of foreign policy decision-making, scholars such as Robert Jervis, Richard Ned Lebow and Janice Gross Stein have demonstrated how the perceptions of foreign policy decision-makers are influenced by pre-existing beliefs, images and theories. In an effort to reduce complexity, resolve ambiguity and avoid the psychological discomfort produced by the pervasive need to confront value

trade-offs, decision-makers subconsciously resort to a variety of cognitive shortcuts that bias inferences in systematic ways. They exhibit a strong predisposition to perceive what they already know or expect; they tend to ignore or discount information that contradicts prior beliefs; and they assimilate ambiguous information to pre-existing beliefs (see Jervis, 1976; Lebow, 1981; Jervis et al, 1989).

Understanding misperception as a discrepancy between individual perceptions and ‘reality’ and individual, if systematic, deviations from the normative precepts of rational choice models of information processing, early work on the psychology of foreign policy decision-making was not concerned with the cultural origins of the baselines against which individual deviations could be established.⁶ But as I have discussed at length elsewhere, the conceptual categories into which perceptions are assimilated vary widely across cultures and languages. Whether we are speaking of sounds or visual or tactile stimuli, individuals experience and interpret these in quite different ways depending on their socialization (see Davis, 2005: 10–60). Though most human beings are born with a very similar neural apparatus, non-trivial portions of the individual’s neural development are conditioned by culturally determined stimuli, with subsequent important effects on higher-order cognitive processes such as reasoning.

Take, for example, the development of our auditory apparatus. Numerous studies have demonstrated that newborn babies are able to distinguish among phonemes that are not found in the language of their parents and that their parents can no longer ‘hear’. Thus, babies born to English speaking parents in Canada could distinguish among phonetic contrasts in both English and Czech. If only exposed to English, however, they rapidly lost the ability to differentiate meaningful phonetic segments in Czech. While it appears that infants engage in prelinguistic categorization of sounds in ways that are relevant to the phonemic distinctions of adult speech, languages differ with regard to which phonemic categories they use and the location of the acoustic boundaries among these categories. As infants come to master their native language, the brain is modified in ways that allow it to distinguish between meaningful and irrelevant acoustic cues. Within eight to ten months of age, the infant brain is already losing the ability to distinguish among sounds not found in the languages to which it is exposed (see Miller and Eimas, 1983; Bahrck and Pickens, 1988; Mehler and Dupoux, 1994; Nelson, 1996).

Returning to one of the premises animating Kratochwil’s deliberations, answering the question of ‘what is’ in social life does require us to move from the mind to the world. But in important ways, the mind itself is a product of the social world. How might this relate to questions of practice at the

⁶ On the various interpretations of the term ‘misperception’, see Levy (2003).

centre of Kratochwil's tome? One obvious answer relates to the possibility for multiple descriptive and normative frames of the 'same' situation. While Kratochwil is certainly right to point out that practical arguments require us to move beyond mere cognition, in many cases cognition itself has already been constrained (or enabled) by culture. Cultural practice provides the very conceptual categories within which cognition itself takes place by directing our attention to some aspects of the situation at the expense of others. And as the example of infant language acquisition makes clear, these processes are subconscious and part of the deep structure of our cognitive apparatus.

Behavioural genetics

The cognitive paradigm drew our attention to the ways in which the environment interacts with the decision-maker's mind to bias choice. Aided by the availability of rapid and relatively inexpensive sequencing technologies, a new generation of political scientists have begun to examine how the individual's genetic make-up interacts with the environment – social and physical – to influence behaviour. Although it is unlikely that any single gene can explain complex social behaviour, it is also unlikely that the influence of heritable traits on behaviour is insignificant. More likely is the possibility that multiple genes acting in concert across numerous causal pathways come to influence behaviour in systematic ways. The burgeoning field of epigenetics adds dimension, nuance and further complexity to this examination by focusing on the ways in which environmental factors can influence gene expression, which in turn can affect downstream behaviour through processes such as hormone release.⁷

Though the fields of behavioural genetics and behavioural epigenetics are truly in their infancy, researchers have already produced findings with potential application to questions of social order, international relations and foreign policy decision-making. Take, for example, the open question of the origins of trust that is so central to Kratochwil's critique of the Hobbesian account of the social contract and liberal theories of international institutions.⁸ True, generalized trust seems conducive to cooperation. The provision of public goods has been shown to be more effective when levels of 'generalized' or 'social' trust are higher (Fehr and Gintis, 2007). When levels of generalized trust are higher, social and economic transactions are more

⁷ For examples of the various causal pathways, see Boomsma et al (1999), Meyer-Lindberg et al (2006) and Ebstein et al (2010).

⁸ For a somewhat similar critique of the standard liberal explanation for international institutions, see Rathbun (2012).

efficient and the costs of policing compliance and punishing transgressions are lower than in situations of generalized mistrust (Mansbridge, 1999).

Previous scholarship explained variations in people's basic inclination to trust others in terms of environmental factors, including the individual's education, socio-economic status and socialization (Nie et al, 1996; Alesina and La Ferrara, 2002; Uslaner, 2002). These findings have been challenged by genetic studies focusing on monozygotic and dizygotic twins. For example, Sturgis and his colleagues set out to estimate the relative influence of genetic and environmental factors on subject scores on a multi-item trust scale. In contrast to those studies emphasizing the effects of socialization, they found that environmental factors experienced in common by sibling pairs produced no discernible effects. Only those environmental factors unique to the individual had a measurable effect on that individual's level of social trust. But the majority of the observed variance was accounted for by additive genetic factors (Sturgis et al, 2010). Though nature and nurture condition the individual's propensity to trust others, across the populations used for these studies, the former accounts for more of the observed variance than the latter.⁹

Cultural epigenetics?

Genetic-based explanations provide a counterpoint to social science models that attribute behavioural variation to changes in one's environment or different positions individuals are said to occupy in some theoretically defined structure. Yet insofar as they are evolutionary in nature, genetic explanations are not completely reductionist. Much of our genetic make-up reflects adaptive responses to environmental challenges. Similarly, the new field of epigenetics proceeds from the premise that behaviour emerges from the interaction of our genes with the environment. The difference is that epigenetics focuses not only on the genes we have inherited, but on how environmental factors affect their operation and thereby condition downstream behaviour. A focus on genetics runs counter to the overwhelming tendency of social science to attribute behavioural variation to environmental factors alone. If social science has tended to privilege nurture over nature, the new field of behavioural epigenetics starts from the premise that behaviour emerges from factors at the interface between genes and environment. The focus is not only on what genes you have, but on how things 'around the gene' affect their operation and thereby downstream behaviour. Moreover, in some situations, genes and the environment can be thought of as mutually

⁹ For a sampling of research attributing dispositions to genetics, see Arvey et al (1989), Bouchard et al (2004) and Alford et al (2005).

constitutive, the social environment both cause and consequence of genetically influenced behaviours (McDermott and Hatemi, 2014).

Epigenetics is the study of the processes whereby genetic information is made available or unavailable for use in other biological processes. Disease, exposure to toxic chemicals or high levels of stress can have the effect of 'turning on' or 'turning off' specific genes. This in turn can affect other biochemical processes, with effects that eventually reach the level of behaviour. 'Histone acetylation' refers to processes whereby DNA segments become more accessible, gene expression is enhanced and the production of proteins associated with those genes is increased. 'Methylation', by contrast, inhibits access to DNA segments, decreases gene expression and subsequently reduces the production of associated proteins. These processes are ongoing and not unidirectional. For at least a subset of genes, environmental influences and experience can lead to methylation, demethylation and remethylation. The result is persistent functional change in the nervous system (see Powledge, 2011; Moore, 2017).

For example, laboratory studies of variations in the behaviour of mother rats towards their offspring discovered that denying newborn pups exposure to the frequent licking and grooming that is characteristic of mother rat behaviour produced highly methylated DNA segments within the cells of the brain's hippocampus. The consequent decrease in the production of a protein associated with stress regulation in turn produced adult rats that were significantly more fearful when exposed to stress compared with those rats that experienced maternal attention (Francis et al, 1999; Weaver et al, 2004; Weaver, 2007; Murgatroyd et al, 2009). Analogous effects have been documented in humans, with the hippocampal cells of adults who experienced abuse as children also exhibiting methylation in the region of the DNA association with the production of the protein (glucocorticoid receptor) important for the regulation of stress (McGowan et al, 2009; Palumbo et al, 2018). Moreover, studies of children who were institutionalized in Romanian orphanages and deprived of socio-emotional attention exhibited similar developmental deficits (Chugani et al, 2001; Eluvathingal et al, 2006).

But are the effects of such processes really of interest to social scientists, or indeed students of international relations? It seems hardly a stretch to hypothesize that parents exposed to ongoing civil or inter-state war will have relatively less time to devote to the social and emotional care of infants and children than parents in more peaceful settings. If such deprivations prove pervasive and durable, they probably enhance the prospect that significant populations within society will exhibit developmental pathologies with significant implications for subsequent levels of social cohesion. Although well-established social transmission belts, such as generalized tit-for-tat strategies or more thick processes of socialization, may provide a sufficient

basis for the perpetuation of anti-social behaviours, evidence is mounting that socially triggered epigenetic effects are heritable, a finding that suggests biological transmission of cultural attributes (or at least behavioural tendencies) across generations (Axelrod, 1984). For example, the daughters of Finnish women who were evacuated from their homes and separated from their families as children between 1941 and 1945 during Finland's war with the Soviet Union share the same high risk for mental illness as their mothers. By contrast, their cousins born to mothers not evacuated display an incidence of mental illness characteristic of the overall population (Santavirta et al, 2018). Similarly, women who were pregnant during the Dutch famine at the end of World War II gave birth to children who displayed much higher rates of diabetes, and this effect appears to exert itself across at least two generations (Painter et al, 2008).

Even when the direct effects of epigenetic processes on behaviour are limited in scope and domain, collective responses to the underlying pathologies might produce societal-level effects. For example, public health interventions designed to redress rising levels of diabetes – perhaps in the form of information campaigns designating certain foods as ‘good’ or ‘bad’ – if successful, could change long-standing cultural practices.

Social science is only beginning to contemplate the ways in which epigenetic mechanisms can help explain phenomena of interest. It remains an open question whether the explanations generated with reference to such processes will bring insights beyond those of existing social science models and theories. Careful attention to scope conditions is called for. For whereas the effects discussed previously appear to transmit across generations, early studies of epigenetic effects on social preferences suggest they may be of more limited durability (see, e.g., Hatemi, 2013). And, as mentioned earlier, scholars should resist the temptation to match a particular behaviour to a specific gene. Even when positive, the correlation between isolated genes and social traits most often accounts for only a small portion of observed behavioural variance (see Duncan and Keller, 2011).

Nonetheless, a focus on the ways in which socially constructed environmental conditions interact with biological processes at the level of individuals to produce genetic changes that subsequently influence aggregate social behaviour and thereby potentially culture allows us to dispense with simplistic nature versus nurture debates. The emerging fields of behavioural genetics and epigenetics point to the more promising framework of biological and social co-evolution.

Practising praxis

To repeat an often misapplied aphorism: there is a difference between theory and praxis. Being an expert in physics and aerodynamics is not much help

on the tennis court. When trying to learn a new sport, *practice*, not theory, makes perfect (or at least is a necessary if not sufficient condition thereof). Neuroscientific advances have enhanced our understanding of how dexterity develops and point to a complex interaction between repeated play and neurological processes involving various areas of the brain, many of which require sleep in order to operate effectively. Both the size and the structure of the human brain change in response to environmental demands as action sequences are imprinted in synaptic connections in ways that allow even complex moves to become automated or habitual (see, e.g., [Draganski et al, 2004](#); [Meister and Buffalo, 2017](#)).

While [Kratochwil \(2018: 425\)](#) is correct to note that praxis cannot be reduced to habit – for then innovation would not be possible – the relationship between habits and innovation is more symbiotic than his critique implies. Firstly, it appears that variability is essential to learning. To master a practice requires us to try it out in different ways. Secondly, innovation presupposes dexterity. One cannot improve upon that which one has not already mastered to some degree. Thirdly, by providing functional and reflex-like behaviours that help us to successfully navigate complex environments, habits actually free up cognitive resources, allowing for critical reflection over both the substance and form of praxis ([Meister and Buffalo, 2017](#)).

Psychobiology of praxis

There can be no ‘we’ without individuals, but contemporary research in psychology, biology and neuroscience provides strong evidence that the ‘I’ is constituted by the ‘we’ in non-trivial ways. ‘Co-constitution’ seems a more apt methodological position than either reductionism (methodological individualism) or holism. While biology surely constrains what human beings can do, it is not immutable. And cultural variety is not merely a conditioned response to physical and social environmental challenges. Praxis is more than a store of lessons, scripts or standards that provide the thinking individual with functional responses to the complexities of social life and the terms according to which discourses over social questions may occur. It also (re-)structures the biological organism and in doing so both enables and constrains behaviour, which includes thinking and choice.

Because the thick constructivism defended by Kratochwil is silent as to the psychobiology of human agents, it is apt both to exaggerate our ability to make and remake the social world and to overlook the biological effects produced by the individual’s social environment. This silence is ironic given Kratochwil’s indebtedness to Hume, who was concerned with the ‘anatomy of the mind’ ([Hume, 1896 \[1739\]: 326](#)) and distinguished between ‘impressions’, a category that for him included emotions, and ‘ideas’, which he considered to be the product of thinking and reasoning ([Hume,](#)

1896 [1739]: 1–4).¹⁰ But because both constructivism and psychology share the conviction that to understand international relations requires us to understand how individuals perceive and construct reality, the study of praxis can only benefit from a sustained dialogue between these two modes of inquiry. How might collaboration proceed? In what follows, I briefly sketch out a hypothesized relationship between culture and psychology and in doing so try to show how ‘we’ and ‘I’ relate along some of the dimensions discussed previously.

Human beings perceive their world, experiences and fantasies in terms of a limited set of concepts and schemas, as otherwise we would be overwhelmed by the sheer volume of stimuli and impressions. Among the various categories used by individuals to make sense of their world are those pertaining to social groups. The cognitive imperative to classify individuals, including the self, into groups then gives rise to a social identity. Because social categories not only describe group attributes but also prescribe appropriate group behaviour, social identities imply behavioural consequences. The mechanism leading from categorization to behaviour is identification. One can belong to a particular group on the basis of some defining features without self-identifying as a member of the group. Hence, identification with a group is a psychological phenomenon, and social identity is that part of an individual’s self-concept that derives from knowledge of membership in a social group. With identification comes affect, as the individual begins to attach emotional significance to group membership (Niedenthal and Brauer, 2012). When emotional attachments move beyond mere membership to include the symbols and values that are meaningful to the group as a whole, the first-person singular and plural merge and the ‘I’ becomes ‘we’. Evidence of this process will be apparent in the emotional responses of individuals when group symbols, values, members or the group as a whole are the focus of praise or condemnation (Leonard et al, 2010; van Zomeren et al, 2010). In the first instance the individual will experience the emotion of pride, in the second, anger or fear. Because social categories have reference to the self, social categorization induces social comparison. Favourable or unfavourable comparisons to other groups can induce affective responses analogous to those produced by perceived threats or support for group symbols and values.¹¹

If the human brain is predisposed to (self-)categorize, the world rarely provides ready-made and obvious categories. Of particular interest from the standpoint of a study of praxis is the fact that most objects or experiences are multidimensional and thus can be categorized in any number of ways. The

¹⁰ I am grateful to Nicholas Onuf for alerting me to this irony.

¹¹ For the full articulation of the mechanism summarized here, see Larson (2012).

question then shifts from the object or experience itself to the purposes of the attempt at categorization (Kratochwil, 2018: 378). What is the problem to be solved? Similarly, nature usually does not present us with a clearly defined list of dimensions according to which we can (or should) compare our group with others.¹² To gain leverage over these questions requires the insights and methods of constructivism.

The foregoing sketch implies that there is no inherent dichotomy between psychology's focus on the individual's subjective experience of the world and constructivism's emphasis on the intersubjective component of social reality. Instead, emphasizing the co-constitution of the 'I' and the 'we' directs our attention to the ways in which subjectivity and intersubjectivity relate to and reinforce each other.

Paul Kowert (2012) offers a more specific articulation of the general argument in his exploration of the deontic force of obligations. How an idea or belief comes to exert a deontic force on actors, Kowert argues, is a question of both intersubjective understandings and the way the brain works. If we are to move beyond a mere instrumental conception of compliance, where the effects of rules and norms are produced via actors' calculations of the benefits of compliance as compared with the likely costs of non-compliance (usually conceived in terms of externally imposed negative sanctions), we necessarily must move beyond discourses based on intersubjective understandings to individual psychology. To understand an individual's sense of obligation requires us to link processes of reasoned judgement to the evocation of emotions, a position Kowert (2012: 35) associates with Hume. Again, linguistically oriented constructivists and psychologists each contribute insights that foster a better understanding of the issue involved:

[N]ormativity depends on creating feelings of obligation. For emotions to generate obligation, they must be linked to beliefs, and these beliefs must be capable of being articulated in certain ways. The constructivist interest in shared beliefs and in language thus gets an important part of the story right. Obligation does indeed require belief. Yet not all beliefs are normative (any more than all choices are rational): The functioning of language on the one hand and emotion on the other endows certain beliefs with normative force. (Kowert, 2012: 37)

¹² There is, however, evidence that evolution has predisposed humans to prefer some 'types' over others, especially when considering reproductive mates. Although some judgements show cultural variation, the evidence suggests that other predispositions are pre-cultural. See, for example, Jones and Hill (1993), Thornhill and Gangestad (1993) and Rhoads et al (2001).

A sense of obligation, then, is the result of a non-idiosyncratic characterization of some situation involving objects and/or events to which the individual has attached some feelings. To say that we cannot reduce shared understandings of situations, objects or events to the pre-linguistic drives or instincts of individuals does not negate the proposition that it is individual emotional reactions to these that provide obligations their moral or deontic force. Shared understandings provide us the *content* of obligations, but for obligations to produce effects, they must be meaningful for individuals (Kowert, 2012: 50). It is precisely via the internalization of intersubjective understandings that subjective experiences produce emotional responses that subsequently influence individual choice. In this way, psychology puts the group – or the collective ‘we’ in Kratochwil’s formulation – into the individual ‘I’.¹³ It is this social identity that is then subject to manipulation through the various special rites and ceremonies created by communities for purposes of mobilizing memories and their associated emotions (Kratochwil, 2018: 33).

Conclusion

Friedrich Kratochwil’s *Praxis* is the culmination of a lifetime of scholarly critical reflection. In it, he returns to early topics and themes, such as the development of a Humean perspective on International Relations (IR) and the need for methods of analysis adequate to the task of analysing the origins, reproduction and effects of conventions as social rather than natural kinds (Kratochwil, 1981, 1984). Though many of the themes are familiar to the generations of scholars influenced by his early work, they no longer seem exotic or radical. A giant of the constructivist turn in IR scholarship, Kratochwil (Kratochwil, 1989, 1994, 2006) is directly responsible for the (near) mainstream status now accorded the many research programmes directed at understanding, inter alia, the role of intersubjective understandings; history and memory; legal and moral reasoning; as well as questions of identity, in international life. And owing to the ‘practice turn’, the claim that knowing is not merely a question of subsuming individual cases under general laws or principles – but also about *knowing how* to proceed with goal-directed activity in the light of unknowable and ever changing circumstances – while not universally accepted, continues to attract adherents (Kratochwil, 2018: 414–16).

But what does it mean to ‘keep going’ when the signposts of constructivist praxis and the attendant ‘rules of the road’ are not only extended to help us navigate new terrain but *de-* or *re-*based in ways that fundamentally subvert the original purposes of the conventions? The intersubjectivity of standards

¹³ For a concise review of the relevant research in psychology, see Smith and Mackie (2016).

may provide some defence against idiosyncratic justifications, but how are we to adapt when symbols and rituals are instrumentalized to conjure the ‘we’ in pursuit of tyranny (Kratochwil, 2018: 463)? When priests and pastors increasingly are exposed as imposters and even the most senior judges are suspected of being little more than artful penmen, selected on the basis of their willingness to serve the needs of the politician, appeals to the law or morals will not do, as these are precisely the objects of debasement.

Given the current state of national and international affairs, it seems no accident that Kratochwil ends his tome with some thoughts on the future of politics. Echoing Hannah Arendt, he wonders how to inspire new political projects that would allow free people to reconcile their individual and collective projects (Kratochwil, 2018: 472). It is a question many readers will share and are likely to repeat after having read this monumental reflection: how *do* ‘we’ recover collective intentionality in pursuit of a common understanding of the good life, and what can ‘I’ do?

References

- Adler, Emanuel (2019) *World Ordering: A Social Theory of Cognitive Evolution* (Cambridge: Cambridge University Press).
- Alesina, Alberto and Eliana La Ferrara (2002) ‘Who trusts others?’, *Journal of Public Economy* 85, 2, pp 207–34.
- Alford, John R., Carolyn L. Funk and John R. Hibbing (2005) ‘Are political orientations genetically transmitted?’, *American Political Science Review* 99, 2, pp 153–7.
- Anderson, Adam K. and Elizabeth A. Phelps (2000) ‘Perceiving emotion: there’s more than meets the eye’, *Biology* 10, 15, 551–4.
- Arvey, Richard D., Thomas J. Bouchard, Nancy L. Segal and Lauren M. Abraham (1989) ‘Job satisfaction: environmental and genetic components’, *Journal of Applied Psychology* 74, 2, pp 187–92.
- Axelrod, Robert (1984) *The Evolution of Cooperation* (New York: Basic Books).
- Bahrnick, Lorraine E. and Jeffrey N. Pickens (1988) ‘Classification of bimodal English and Spanish language passages by infants’, *Infant Behavior and Development* 11, 3, pp 277–96.
- Bargh, John A. (1984) ‘Automatic and conscious processing of social information’, in Robert S. Wyer and Thomas K. Srull (eds), *Handbook of Social Cognition* (3rd edn) (Hillsdale, NJ: Erlbaum), pp 1–43.
- Bechara, Antoine, Hanna Damasio, Daniel Tranel and Antonio R. Damasio (1997) ‘Deciding advantageously before knowing the advantageous strategy’, *Science* 275, 5304, pp 1293–5.
- Bechara, Antoine, Daniel Tranel and Hanna Damasio (2000) ‘Characterization of the decision-making deficit of patients with ventromedial prefrontal cortex lesions’, *Brain* 123, 11, pp 2189–202.

- Bernoulli, Daniel (1954) 'Exposition of a new theory on the measurement of risk', *Econometrica* 22, 1, pp 23–36.
- Boomsma, Dorret I., J.C. de Geus Eco, G. Carolina van Baal and Judith R. Koopmans (1999) 'A religious upbringing reduces the influence of genetic factors on disinhibition: evidence for interaction between genotype and environment on personality', *Twin Research* 2, 2, pp 115–25.
- Bouchard, Thomas J., Nancy L. Segal, Auke Tellegen, Matthew McGue, Margaret Keyes and Robert Krueger (2004) 'Evidence for the construct validity and heritability of the Wilson–Patterson Conservatism Scale: a reared-apart twins study of social attitudes', *Journal of Personality and Individual Differences* 34, 6, pp 959–69.
- Buckley, Chris and Austin Ramzy (2017) 'China's state media slams Trump's "emotional venting" on Twitter', *New York Times*, 2 August, p A5.
- Chugani, Harry T., Michael E. Behen, Otto Muzik, Csaba Juhász, Ferenc Nagy and Diane C. Chugani (2001) 'Local brain functional activity following early deprivation: a study of postinstitutionalized Romanian orphans', *Neuroimage* 14, 6, pp 1290–301.
- Damasio, Antonio R. (1996) *Descartes' Error: Emotion, Reason, and the Human Brain* (New York: Putnam and Sons).
- Damasio, Hanna, Thomas Grabowski, Randall Frank, Albert M. Galaburda and Antonio R. Damasio (1994) 'The return of Phineas Gage: the skull of a famous patient yields clues about the brain', *Science* 264, 5162, pp 1102–5.
- Davis, James W. (2005) *Terms of Inquiry: On the Theory and Practice of Political Science* (Baltimore, MD: Johns Hopkins University Press).
- Davis, James W. and Rose McDermott (2020) 'The past, present, and future of behavioral IR', *International Organization* 75, 1, pp 147–7.
- Davis, James W., Symone D. Sanders, Tony Schwartz and Evgeny Morozov (2017) 100 days of President Trump – 47th St. Gallen Symposium, Panel Discussion at the 47th Annual St. Gallen Symposium, 4 May, available at: https://www.youtube.com/watch?v=qFaLrN_jwcU, accessed 26 February 2021.
- Draganski, Bogdan, Christian Gaser, Volker Busch, Gerhard Schuierer, Ulrich Bogdahn and Arne May (2004) 'Changes in grey matter induced by training', *Nature* 427, pp 311–12.
- Duncan, Laramie E. and Matthew C. Keller (2011) 'A critical review of the first 10 years of candidate gene-by-environment interaction research in psychiatry', *American Journal of Psychiatry* 168, 10, pp 1041–9.
- Ebstein, Richard P., Salomon Israel, Soo Hong Chew, Songfa Zhong and Ariel Knafo (2010) 'Genetics of human social behavior', *Neuron* 65, 6, pp 383–408.

- Eluvathingal, Thomas J., Harry T. Chugani, Michael E. Behen, Csaba Juhász, Otto Muzik, Mohsin Maqbool, Diane C. Chugani and Malek Makki (2006) 'Abnormal brain connectivity in children after early severe socioemotional deprivation: a diffusion tensor imaging study', *Pediatrics* 117, 6, pp 2093–100.
- Fehr, Ernst and Herbert Gintis (2007) 'Human motivation and social cooperation: experimental and analytical foundations', *Annual Review of Sociology* 33, pp 43–64.
- Francis, Darlene, Josie Diorio, Dong Liu and Michael J. Meaney (1999) 'Nongenetic transmission across generations of maternal behavior and stress responses in the rat', *Science* 286, 5422, pp 1155–8.
- Hatemi, Peter K. (2013) 'The influence of major life events on economic attitudes in a world of gene–environment interplay', *American Journal of Political Science* 57, 4, pp 987–1007.
- Hume, David (1896 [1739]) *A Treatise of Human Nature* (Oxford: Clarendon Press).
- Jervis, Robert (1976) *Perception and Misperception in International Politics* (Princeton, NJ: Princeton University Press).
- Jervis, Robert, Richard Ned Lebow and Janice Gross Stein (1989) *Psychology and Deterrence* (Baltimore, MD: Johns Hopkins University Press).
- Jones, Doug and Kim Hill (1993) 'Criteria of facial attractiveness in five populations', *Human Nature* 4, 3, pp 271–96.
- Khong, Yuen Foong (1992) *Analogies at War: Korea, Munich, Dien Bien Phu, and the Vietnam Decisions of 1965* (Princeton, NJ: Princeton University Press).
- Kowert, Paul A. (2012) 'Completing the ideational triangle: identity, choice, and obligation in international relations', in Vaughn P. Shannon and Paul A. Kowert (eds), *Psychology and Constructivism in International Relations: An Ideational Alliance* (Ann Arbor: University of Michigan Press), pp 30–53.
- Kratochwil, Friedrich (1981) *The Humean Conception of International Relations* (Princeton, NJ: Princeton University, Center of International Studies).
- Kratochwil, Friedrich (1984) 'Errors have their advantage', *International Organization* 38, 2, pp 305–20.
- Kratochwil, Friedrich (1989) *Rules, Norms and Decisions: On the Conditions of Practical and Legal Reasoning in International Relations and Domestic Affairs* (Cambridge: Cambridge University Press).
- Kratochwil, Friedrich (1994) 'The limits of contract', *European Journal of International Law* 5, 4, pp 465–91.
- Kratochwil, Friedrich (2006) 'History, action and identity: revisiting the “second” great debate and assessing its importance for social theory', *European Journal of International Relations* 12, 1, pp 5–29.
- Kratochwil, Friedrich (2018) *Praxis: On Acting and Knowing* (Cambridge: Cambridge University Press).

- Kunst-Wilson, William R. and Robert B. Zajonc (1980) 'Affective discrimination of stimuli that cannot be recognized', *Science* 207, 4430, pp 557–8.
- Larson, Deborah Welch (2012) 'How identities form and change: supplementing constructivism with social psychology', in Vaughn P. Shannon and Paul A. Kowert (eds), *Psychology and Constructivism in International Relations: An Ideational Alliance* (Ann Arbor: University of Michigan Press), pp 57–75.
- Lazarus Richard S. (1982) 'Thoughts on the relation between emotion and cognition', *American Psychologist* 37, 9, pp 1019–24.
- Lazarus, Richard S. (1984) 'On the primacy of affect', *American Psychologist* 39, 2, pp 124–9.
- Lebow, Richard Ned (1981) *Between Peace and War: The Nature of International Crises* (Baltimore, MD: Johns Hopkins University Press).
- LeDoux, Joseph E. (1996) *The Emotional Brain* (New York: Simon and Schuster).
- LeDoux, Joseph E. (2012) 'Rethinking the emotional brain', *Neuron* 73, 4, pp 653–76.
- Legro, Jeffrey W. (1996) 'Culture and preferences in the international cooperation two-step', *American Political Science Review* 90, 1, pp 118–37.
- Leonard, Diana J., Wesley G. Moons, Diane M. Mackie and Elliot R. Smith (2010) "'We're mad as hell and we're not going to take it anymore": anger self-stereotyping and collective action', *Group Processes and Intergroup Relations* 14, 1, pp 99–111.
- Levy, Jack S. (2003) 'Political psychology and foreign policy', in David O. Sears, Leonie Huddy and Robert Jervis (eds), *Oxford Handbook of Political Psychology* (Oxford: Oxford University Press), pp 261–3.
- Mansbridge, Jane (1999) 'Altruistic trust', in Mark E. Warren (ed), *Democracy and Trust* (Cambridge: Cambridge University Press), pp 290–309.
- May, Ernest R. (1973) *Lessons of the Past: The Use and Misuse of History in American Foreign Policy* (New York: Oxford University Press).
- McDermott, Rose (2004) 'The feeling of rationality: the meaning of neuroscientific advances for political science', *Perspectives on Politics* 2, 4, pp 691–706.
- McDermott, Rose and Peter K. Hatemi (2014) 'Political ecology: on the mutual formation of biology and culture', *Political Psychology* 35, 1, pp 111–27.
- McGowan, Patrick, Aya Sasaki, Ana C. D'Alessio, Sergiy Dymov, Benoit Labonté and Moshe Szyf (2009) 'Epigenetic regulation of the glucocorticoid receptor in human brain associates with childhood abuse', *Nature Neuroscience* 12, 3, pp 342–8.
- Mead, George H. and Charles W. Morris (1967) *Mind, Self and Society from the Standpoint of a Social Behaviorist* (Chicago, IL: University of Chicago Press).

- Mehler, Jacques and Emmanuel Dupoux (1994) *What Infants Know* (Cambridge: Blackwell).
- Meister, Miriam L.R. and Elizabeth A. Buffalo (2017) 'Memory', in P. Michael Conn (ed), *Conn's Translational Neuroscience* (Cambridge, MA: Academic Press), pp 693–708.
- Meyer-Lindberg, Andreas, Carolyn B. Mervis and Karen Faith Berman (2006) 'Neural mechanisms in Williams's Syndrome: a unique window to genetic influences on cognition and behavior', *Nature Reviews Neuroscience* 7, 5, pp 380–93.
- Miller, Joanne L. and Peter D. Eimas (1983) 'Studies on the categorization of speech by infants', *Cognition* 13, 2, pp 135–65.
- Moore, David S. (2017) 'Behavioral epigenetics', *WIREs System Biology and Medicine* 9, 1, pp 1–8.
- Moravcsik, Andrew (1997) 'Taking preferences seriously: a liberal theory of international politics', *International Organization* 51, 4, pp 513–53.
- Murgatroyd, Chris, Alexandre V. Patchev, Yonghe Wu, Vincenzo Micale, Yvonne Bockmühl, Dieter Fischer, Florian Holsboer, Carsten T. Wotjak, Osborne F.X. Almeida and Dietmar Spengler (2009) 'Dynamic DNA methylation programs persistent adverse effects of early-life stress', *Nature Neuroscience* 12, 12, pp 1559–66.
- Nader, Karim, Glenn E. Schafe and Joseph E. LeDoux (2000) 'Fear memories require protein synthesis in the amygdala for reconsolidation after retrieval', *Nature* 406, pp 722–6.
- Nelson, Katherine (1996) *Language in Cognitive Development: Emergence of the Mediated Mind* (Cambridge: Cambridge University Press).
- Neustadt, Richard E. and Ernest R. May (1986) *Thinking in Time: The Uses of History for Decision-Makers* (New York: Free Press).
- Nie, Norman H., Jane Junn and Kenneth Stehlik-Barry (1996) *Education and Democratic Citizenship in America* (Chicago, IL: University of Chicago Press).
- Niedenthal, Paula M. and Markus Brauer (2012) 'Social functionality of human emotion', *Annual Review of Psychology* 63, pp 259–85.
- Painter, Rebecca C., Clive Osmond, Peter Gluckman, Mark Hanson, D.I.W. Phillips and Tessa J. Roseboom (2008) 'Transgenerational effects of prenatal exposure to the Dutch famine on neonatal adiposity and health in later life', *BJOG: An International Journal of Obstetrics and Gynaecology* 115, 10, pp 1243–9.
- Palumbo, Sara, Veronica Mariotti, Caterina Iofrida and Silvia Pellegrini (2018) 'Genes and aggressive behavior: epigenetic mechanisms underlying individual susceptibility to aversive environments', *Frontiers in Behavioral Neuroscience* 12, 117, pp 1–8.
- Powlledge, Tabitha M. (2011) 'Behavioral epigenetics: how nurture shapes nature', *BioScience* 61, 8, pp 588–92.

- Rathbun, Brian (2012) *Trust in International Cooperation: The Creation of International Security Institutions and the Domestic Politics of American Multilateralism* (Cambridge: Cambridge University Press).
- Rhodes, Gillian, Sakiko Yoshikawa, Alison Clark, Kieran Lee, Ryan McKay and Shigeru Akamatsu (2001) 'Attractiveness of facial averageness and symmetry in non-Western cultures: in search of biologically based standards of beauty', *Perception* 30, 5, pp 611–25.
- Santavirta, Thorsten, Nina Santavirta and Stephen E. Gilman (2018) 'Association of the World War II Finnish evacuation of children with psychiatric hospitalization in the next generation', *JAMA Psychiatry* 75, 1, pp 21–7.
- Smith, Eliot R. and Diane M. Mackie (2016) 'Group-level emotions', *Current Opinion in Psychology* 11, pp 15–19.
- Sturgis, Patrick, Sanna Read, Peter K. Hatemi, Gu Zhu, Tim Trull, Margaret J. Wright and Nicholas G. Martin (2010) 'A genetic basis for social trust?', *Political Behavior* 32, 2, pp 205–30.
- Thornhill, Randy and Steven W. Gangestad (1993) 'Human facial beauty', *Human Nature* 4, 3, pp 237–69.
- Uslaner, Eric M. (2002) *The Moral Foundations of Trust* (Cambridge: Cambridge University Press).
- van Zomeren, Martijn, Russell Spears and Colin Wayne Leach (2010) 'Exploring psychological mechanisms of collective action: does relevance of group identity influence how people cope with collective disadvantage?', *British Journal of Social Psychology* 47, 2, pp 353–72.
- Vogel, Gretchen (1997) 'Scientists probe feelings behind decision making', *Science* 275, 5304, pp 1269.
- Waltz, Kenneth N. (1979) *Theory of International Politics* (Reading, MA: Addison-Wesley).
- Weaver, Ian C.G. (2007) 'Epigenetic programming by maternal behavior and pharmacological intervention. Nature versus nurture: let's call the whole thing off', *Epigenetics* 2, 1, pp 22–8.
- Weaver, Ian C.G., Nadia Cervoni, Frances A. Champagne, Ana C. D'Alessio, Shakti Sharma, Jonathan R. Seckl, Sergiy Dymov, Moshe Szyf and Michael J. Meaney (2004) 'Epigenetic programming by maternal behavior', *Nature Neuroscience* 7, 9, pp 847–54.
- Zajonc, Robert B. (1980) 'Feeling and thinking: preferences need no inferences', *American Psychologist* 35, 2, pp 151–75.
- Zajonc, Robert B. (1984) 'On the primacy of affect', *American Psychologist* 39, 2, pp 117–23.
- Zajonc, Robert B. and Hazel Markus (1982) 'Affective and cognitive factors in preferences', *Journal of Consumer Research* 9, 2, pp 123–31.