Chapter 9
History and International Relations: War
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Explaining War

The last two chapters used economics and religion to challenge the common assumption that people are inherently rational. If you still think that people are basically rational, consider the origins of the First World War. In 1914, the leading nations in Europe decided to go to war against each other, resulting in four years of carnage, with millions of military casualties and countless suffering civilians. Moreover, this war set up the conditions in Germany for the rise of Hitler and the Second World War which brought even more casualties and suffering. The 1914 leaders of Germany, Austria-Hungary, France, Great Britain, and Russia did not want to produce enormous misery, but they pursued policies and made decisions that led to a disastrous war.

Why do wars break out? Although leaders' decisions may include some rational choices, and power relations are undoubtedly important, social science currently lacks the resources to explain the origins of war and the resulting social changes. The aim of this chapter is to show that social cognitivism provides plausible explanations of the origins of war by identifying the cognitive-emotional mechanisms operating in the minds of leaders and ordinary citizens, and by identifying the social mechanisms by which they interact. I develop a social cognitive-emotional workup of the origins of the First World

War, identifying the most important kinds of thinking and communication that contributed to the catastrophic decisions that produced it.

The explanation of war has traditionally been the province of two important fields: history and international relations. I therefore begin by quickly reviewing traditional approaches to them in order to indicate how social cognitivism offers an alternative to historical narratives and current theories about how countries interact. Nationalism was an important contributor to the origins of the First World War and is often discussed more generally in history, international relations, and politics. So I will provide an account of nationalism using 3-analysis, value mapping, and social cognitive-emotional workups.

My workup of the origins of the First World War provides a basis for suggesting a new model of historical explanation and a new theory of international relations. Social cognitivism also shows how to solve the international version of the person-group problem, clarifying the relation between groups such as nations and countries and their individual members. My most general conclusion is that wars and the social changes that go along with them are the result of multilevel emergence from cognitive and social mechanisms.

History

The field of history is sometimes classified among the humanities rather than the social sciences, but I think that this distinction is artificial. The humanities such as philosophy, literature, and the arts are sometimes said to differ from the social sciences because of their concern with values, but on my perspective values are neural processes so the humanities/sciences division starts to break down. Volume Three will show

systematically the relevance of semantic pointer theories of cognition and communication for philosophy and the arts. Similarly, history has much to gain by employing the resources of the cognitive sciences to deepen its explanations.

As chapter 1 described, historical explanations are usually narratives, stories about chains of events that led up to the events to be explained. Some historians want to avoid explanations altogether and merely describe what happened, but great historians always want to know *why* things happened. Narrative explanations are a valuable step in this direction, but have the problem of spelling out what actually are the connections between the various events that led up to something puzzling and important, such as the occurrence of the First World War. The lack of plausible causal connections between events makes it hard to assess how well one narrative compares in explanatory value with alternative narratives. I try to fill this gap by specifying cognitive and social mechanisms.

Historians sometimes have drawn on psychology in their explanations, but usually do so using nonscientific psychology of the sort used by ordinary people to explain each other's behavior. For example, we can explain the decisions of leaders by noticing their beliefs and desires that led them to particular actions such as declaring war. Such folk psychology is not altogether wrong, but deeper and more accurate explanations derive from a psychologically rich and neurally instantiated account of how mental representations and processes actually work. Another approach occurs in a field called psychohistory that attempts to use Freudian ideas in its explanations, for example trying to explain the actions of leaders based on their upbringings and neuroses. But little was gained by using theories for which there is little empirical evidence. Cognitive theories

that include emotion and link to neural mechanisms should be able to take historical explanation much further.

Another problem that arises in historians' use of folk psychology is that they frequently attribute mental states to whole groups such as countries. Narrative explanations of the origins of war often refer to what Great Britain wanted or what Germany feared. But how can countries have wants, fears, hopes, and other mental states? Are these emergent properties, aggregates, or merely figures of speech for talking about the cognitive and social mechanisms that go into the events that involve countries?

International Relations

Understanding war is also a concern for the field of international relations, which is interested more generally in what sovereign states do, and in why and how they do it. There are various competing theories of international relations, going by the misleading names of liberalism, realism, behavioralism, and social constructivism. In this field, liberalism means an approach to international relations that assumes that states can use reason to set up organizations for the benefit of all. Whereas liberalism is oriented towards explaining peace by concentrating on the harmony of interests between countries, the view called realism assumes that there are profound conflicts between countries, for example between rich ones and poor ones, and that nations and people are wholly self-interested. Realism is therefore more directed at explaining war rather than peace.

The approach to international relations called behavioralism is akin to the behaviorism that dominated psychology in the middle of the 20th century and still reigns in much of economics. Behavioralism attempts to avoid speculations about the reasons

and interests of countries in favor of collection of data and formulation of testable hypotheses. Social constructivism (which bears no connection to postmodernist social constructionism in anthropology and sociology) uses discussions of ideas and discourse to explain the making of foreign policies. Marxism assumes that the fundamental conflicts within the world are not between countries but rather between economic classes, particularly between the capitalists who own the means of production such as factories and the members of the working class who have to sell their labor.

All of these theories in international relations ignore the cognitive, emotional, and communicative mechanisms that underlie the actions of leaders in countries. My workup of World War I will suggest how social cognitivism can provide a plausible alternative.

Nationalism

For background to the First World War and for many of today's conflicts, it is crucial to understand nations and nationalism. One hopeless approach might be to try to give strict definitions of the concepts of nation and nationalism, but we can begin by applying the method of 3-analysis.

Table 9.1 presents a 3-analysis of the concept *nation* using exemplars, typical features, and explanations. There are hundreds of good examples of nations, such as the French, the Germans, the Serbians, and the Inuit of northern Canada. Such examples show that nations are different from countries, because there are nations that do not have their own countries such as the Inuit, and there are countries such as Canada that include multiple nations including many aboriginal nations and the Québecois.

Coming up with defining features that capture all and only these examples would be a daunting task, but it is easy to see that all of them typically have a group of people

and their leaders, a language, and a culture including beliefs and practices such as dress and food. Countries always have institutions such as governments and courts, but nations may have more informal institutions such as clubs. Emotions are not usually listed as a key property of nations, but emotions such as patriotism and nostalgia bind people together into thinking of themselves as parts of a group with much in common.

Exemplars	French, Germans, Serbians, Inuit, etc.
Typical features	People, leaders, language, culture, dress, symbols, institutions, emotions such as pride, etc.
Explanations	Explains: behavior of people and groups Explained by: cognitive mechanisms such as concepts and beliefs, emotional mechanisms such as pride, and communications mechanisms such as cultural events

Table 9.1 3-analysis of *nation*

Emotions that connect people into nations can include positive ones like pride and gratitude, but also negative ones such as fear of oppressive countries and of the obliteration of the nation. Emotions are often organized by national symbols such as symbols of victory that evoke pride, for example the American Declaration of Independence that separated the United States from Great Britain. Some countries however, also have symbols of defeat that feed into fears of survival, for example the Israeli symbols of the destruction of Solomon's Temple, the group suicide at Masada, and the Holocaust.

Table 9.2 similarly conceptualizes nationalism along the lines of the ideologies discussed in chapter 6. Good examples of nationalism include historical independence

movements in many countries in the Balkans, Africa, Latin America, and Asia. Each version of nationalism has an ideology identifiable by a social cognitive-emotional workup like the one for the Islamic State in chapter 6. All nationalisms have ideologies, but not all ideologies are nationalisms. Like other ideologies, nationalisms have identifiable concepts, values, beliefs, goals and images such as songs and flags.

Exemplars	Independence movements such as those in Serbia, Catalonia, Québec, Scotland, etc.
Typical features	Ideology with concepts, beliefs, and values as described in chapter 6; proponents including leaders and followers; cultural manifestations such as songs and dances; opponents such as oppressive countries
Explanations	Explains: behavior of individuals and groups, wars of independence, cultural developments Explained by: individual cognitive and emotional mechanisms concerning nations and group membership, along with social mechanisms of communication

Table 9.2 3-analysis of *nationalism*

For each nationalism, one can draw a value map to specify and organize the concepts and goals that constitute the motivating values of a group of people who consider themselves a nation. Nationalisms have groups of people forming a nation (as characterized in table 9.1), and they typically have opponents that threaten the survival and flourishing of the nation. The workup below of the origins of World War I includes

value maps of Serbian nationalism as well as of the general patriotism found in European leaders.

The concept of nationalism is useful because it helps to explain the existence and practices of independence movements and of attempts to maintain the nation in the face of other groups that are viewed as hostile. For example, Québec nationalism has sometimes been expressed by referendums to secede from Canada, and at other times by efforts to gain more French language rights within the province of Québec.

The social cognitivist explanation of nationalism looks to both psychological processes operating in the minds and brains of individual members of a nation, and to the social processes that keep people together by maintaining and spreading mental states. For each individual, the psychological processes are the brain mechanisms for cognition and emotion described in chapter 2, all explicable using semantic pointers. People are nationalists when they have beliefs, concepts, values, and metaphors about their nation that motivate their actions. But nationalism is not just a matter of individual minds, because it would die out without social mechanisms such as organizing and teaching that ensure that people continue to have similar national identities. Let us now look at some more specific examples.

The Origins of the First World War

A simple narrative of the beginnings of World War I includes the following events. In June, 1914, the Austrian Archduke Franz Ferdinand was assassinated by Serbian nationalists. After an ultimatum, Austria-Hungary declared war on Serbia, which was supported by Russia, which mobilized troops toward Austria-Hungary and Germany. Because of previously arranged alliances between Russia and France and between

Germany and Austria Hungary, Germany attacked France via Belgium. Great Britain had an alliance with France and a commitment to Belgium's neutrality, and so entered the war against Germany and Austria-Hungary. Later participants included the Ottoman Empire on the side of Germany, and the United States on the side of Great Britain.

The war resulted from a long history of negotiations and animosity that went into the alliances and antagonisms that eventually led to war. Margaret MacMillan and Christopher Clark have provided superb histories of the war's origins that eloquently tell the long story, which I will not recount. Rather, my aim is to provide a new perspective by considering the cognitive and social mechanisms operating in the people and social groups who were responsible for the conflict. A fully detailed account would include social cognitive-emotional workups for each of the countries involved, but I will try to provide a more condensed account by looking more generally at the mental and social processes that occurred in all countries.

Concepts and Values

People in all countries use many concepts to represent themselves and foreigners. Most generally, people have concepts describing their own countries and nations such as French, German, Austrian, Hungarian, British, Russian, Italian, and Serbian. Such social stereotypes may be wildly inaccurate but nevertheless shape inferences about and actions toward other people. For example, the Austrian stereotype of Serbs took them to be violent and deceitful. Some British leaders saw Germany as a bully. Other concepts important to historical developments included such mental representations as *war, peace, Army, Navy, honor,* and *duty*. Leaders contemplating military attacks required many more specific concepts such as *soldier, ship, weapon, supply lines,* and *mobilization*.

The concepts that have the biggest impact on decisions about war are ones that are bound with emotions to constitute values. You might expect that for most leaders *peace* would be a higher value than *war*, but the prospect of war was attractive to many military leaders and even to some political leaders. France was unusual in being a republic led by a president, but the other major countries were led by monarchs with substantial power, especially Kaiser Wilhelm in Germany, Emperor Franz Joseph in Austria-Hungary, and Tsar Alexander in Russia. Moreover, the military and political leaders in all these countries where largely drawn from the upper classes of aristocrats and landowners. The values of these monarchs and leaders were often militaristic as part of a package that included patriotism, nationalism, and a personal sense of honor and duty.

Figure 9.1 is a value map of attitudes common in the countries. French values did not include the monarchy, but had many of the same attachments to nation, honor, glory, and the military. In accord with the analysis of nationalism in table 9.2, the value map of each nation could naturally be expanded to include the language, culture, and history for that nation, all opposed to nations that were viewed as threats. Honor and duty are important for explaining the actions that led to war because they contribute to commitment; they are discussed in more detail below in the section on emotions. All the leaders at this time were male, and their sense of honor was linked to a common stereotype of manliness that included eagerness to defend family and country.
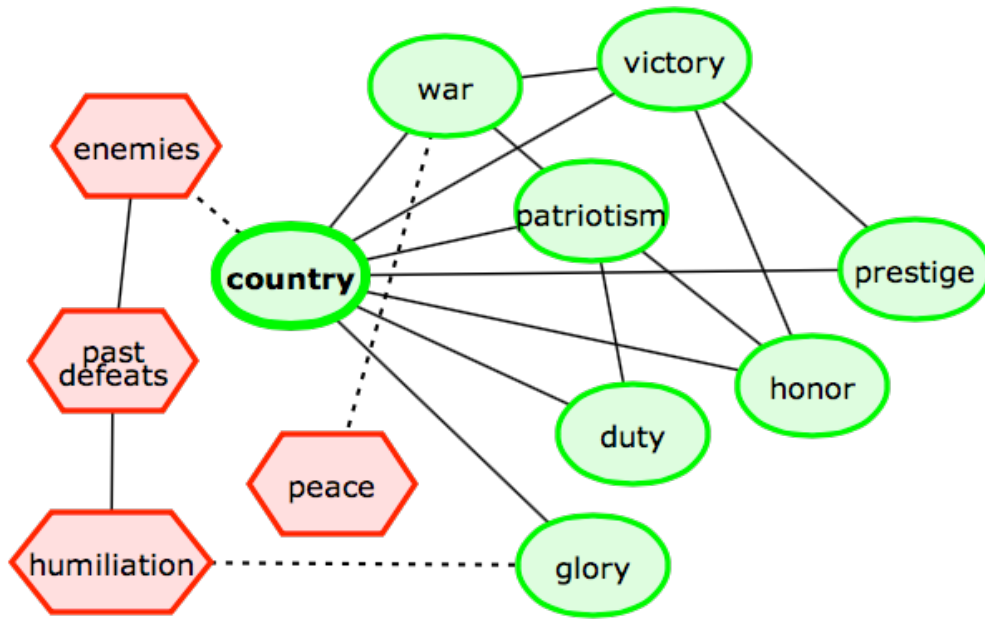
Figure 9.1 Value map of many monarchs and leaders in European countries before WW 1.

To take a more specific example, figure 9.2 maps the values behind the Serbian nationalism that justified the assassination of the Austrian archduke. Serbian nationalism was threatened both by the power of Austria-Hungry and the record of domination by the Ottoman Empire. Stories of a larger medieval Serbian empire, along with other past glories and defeats captured in epic songs and poetry, supported claims that Serbian needed to expand its borders in conflict with Austria-Hungary. Figure 9.2 displays part of the ideology of Serbian nationalism as a system of values, not just a set of beliefs.
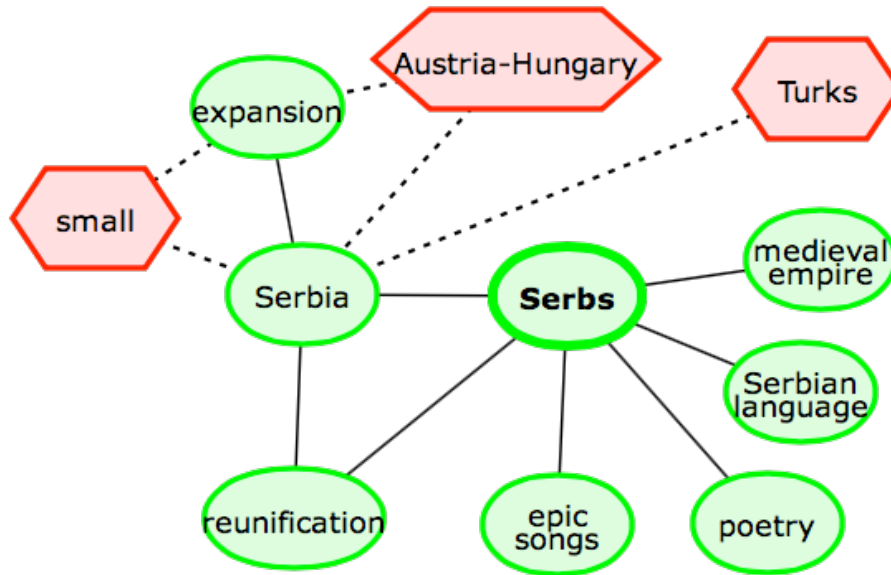
Figure 9.2 Value map of Serbian nationalism in 1914. As an exercise, produce a multimodal version.

Images and Embodiment

The use of words in figures 9.1 and 9.2 may suggest that people in various countries represent themselves and others using only linguistic representations. But sensory representations are also important, as we can see in the operation of a variety of visual and auditory symbols. Countries are often personified by a personal image, such as John Bull in the British World War I recruiting poster in figure 9.3.   Similarly, the French often used pictures of a woman called Marianne as a national symbol, and the USA used pictures of Uncle Sam and the Statue of Liberty. Flags such as the Union Jack shown on John Bull's chest and the French tricolor can also serve as the visual images and symbols of the country.

Figure 9.3 John Bull as a visual symbol of Great Britain.

Another kind of visual image important for understanding international representations and events such as wars are maps. People in different countries understand their relationships with each other in part by means of maps that indicate which countries are contiguous with them. Germans used the metaphor of encirclement to describe their geographical situation with France on one side and Russia on the other, where encirclement took on the emotional connotation of threat. The plans that each nation prepared before the outbreak of war were largely represented by maps showing movements of troop. For example, the plan that Germany used to invade Belgium and France used maps with arrows to show expected military advances eventually thwarted by trench warfare.

Auditory images can also serve as national symbols, particularly in the form of anthems such as "God Save the Queen" and the French "Marseillaise". These are familiar to both natives and foreigners, and are often accompanied by emotions such as

pride. Powerful uses of anthems as auditory symbols include the award ceremonies in the Olympic Games and Tchaikovsky's *1812 Overture,* in which musical themes drawn from the Marseillaise and Russian folk songs symbolize the competing armies during Napoleon's invasion of Russia.

Taste and smell can also contribute to national symbolism, for example with American apple pie, French cheese, and German beer. Motor representations are also relevant, for example in the kinesthetic experiences of waving flags, saluting, and marching in a particular organized fashion. Kinesthetic representations operated metaphorically when the President of France and the Tsar of Russian met in 1914 and urged each other to hold firm against Austria-Hungary and Germany. The multimodal value maps presented for Nazism and anarchism in chapter 6 illustrate how political thinking can have multisensory dimensions.

These sensory representations show one important respect in which international cognition is embodied, because they depend on the senses that our bodies provide to interact with the world. National identity is also embodied as well as represented verbally through molecular mechanisms that underlie emotional reactions such as patriotism (love of country with dopamine activity) and fear of enemies with cortisol activity. But identity is not just embodied, because abstract concepts such as *duty* are also transbodied through connections to moral codes that invoke general principles often linked to deities.

Beliefs, Goals, and Rules

Concepts and images are important mental representations, but describing the world and acting on it require more complicated representations of whole states of affairs,

which are beliefs. People in different countries have many beliefs about their own countries, their allies, and their opponents. Such beliefs are a crucial part of international decision-making, which also requires inferences about what other countries are likely to do. In ordinary problem-solving, with one person dealing with a situation in the world, the person merely needs to represent the world. But in collective and adversarial problem solving, is also necessary to have some sense of what is going on in the minds of the other people who are contributors or obstacles for potential solutions. Understanding the outbreak of war therefore requires identifying not only the beliefs that people in each country have about the world, but also the beliefs that they have about each other's beliefs.

For example, in the run-up to the First World War, leaders in each country had numerous beliefs about the other countries and about the beliefs and other mental states of their leaders. German leaders believed that the British wanted to limit Germany's colonial and industrial power, and British leaders believed that Germans did not want war with Britain because of their similar cultural values and Britain's superior naval power. McMillan notes many unwarranted assumptions that leaders in various countries made about the military situation, such as that war would be both short and successful. These assumptions are beliefs that turned out to be false when the war became mostly defensive and went on for four years. The German belief that they could quickly conquer France and then turn their attention to Russia was also erroneous, as was the belief of the leaders of Austria-Hungary that Serbia could be quickly vanquished.

Rules are a kind of belief particularly important for action and inference. German military plans consisted of a large number of rules of the general form: *if we attack here,*

then France will respond here. Because of the system of alliances forming countries into two main groups, leaders of the particular countries could operate with plausible rules such as *if Russia attacks Austria-Hungary then Germany will attack Russia*. However, not all rules are linguistically represented beliefs, because they can also have a multimodal form where the conditions and actions are nonverbal representations. For example, because military plans often have visual representations via maps and associated movements, some strategic rules are better represented as multimodal rules of the form *<our attack here>* → *<enemy response here>*.

Military practices such as attacking and defending using various kinds of weapons may also be better captured by nonlinguistic multimodal rules than by verbal beliefs. Multimodal rules are also important for anticipating the emotional reactions of opponents, as in the visual-emotional rule *<enemy invaded>* → *<enemy humiliated>* where the semantic pointer in the condition is a visual representation of an invasion and the results is an emotional state attributed to the enemy. Below I will discuss the role of multimodal rules in nonverbal historical understanding.

Like beliefs, goals are mental representations of states of affairs, but concern how the world is desired to be rather than how it is. Every country has fnational goals, represented in the minds of individuals including both leaders and the general public. For example, British goals included maintaining naval superiority, German goals included expanding its small colonial empire, and French goals included regaining the provinces of Alsace and Lorraine which had been taken by Prussia in 1871. A major part of adversarial problem solving in international relations is inferring the goals of the leaders of opposing countries. This inference is abductive, aimed at attributing a goal to an

opponent on the grounds that the attribution provides the best explanation of what the opposing country says and does.

The semantic pointer theory of mental representation is powerful enough to capture the full complexity of beliefs and goals. Semantic pointers can explain beliefs about beliefs and beliefs about goals because of the capacity for recursive binding. Because every belief is a semantic pointer (Volume One), and semantic pointers can be bindings of bindings, one person's beliefs about another's beliefs can be understood as semantic pointers that bind other semantic pointers. For example, Tsar Alexander's belief that Kaiser Wilhelm believed that Russia threatened Germany can be captured by neural processes that result from convolutions of this sort: *bind (believe Wilhelm (bind (threaten Russia Germany)))*. Goals operate in individual minds through bindings of representations of states of affairs with emotional states such as desire. Wilhelm's having the goal of expanding Germany's navy was just having the neural representation of Germany with a stronger navy bound to a neural pattern corresponding to desirability.

Analogies and Metaphors

Analogies were not a major contributor to the thinking that led up to the first world war, but had subtle influences. Analogies, and metaphors based on analogies, contributed to how leaders thought about the current situation, the historical roles of their countries, the nature of war, and the other countries that were their enemies or allies.

In retrospect, there were no good analogies to the situation in 1914, because the First World War was unprecedented in its internationally disastrous effects. But from the perspective of leaders in 1914, there were reassuring analogies of two different kinds. First, Europe had managed to survive a series of international crises in Morocco and in

the Balkans. In these cases, diplomats and leaders had reached compromises that prevented the breakout of large-scale war. Second, the wars most alive in people's memories, such as the Franco-Prussian war of 1871, were relatively short and limited in both geography and casualties. Therefore, analogical thinking helped leaders in 1914 to think that war was both unlikely and not disastrous.

Other analogies suggested that war actually could be good. War was compared to a tonic used to treat illness or a life-saving operation to cut out diseased flesh, a kind of hygiene. Social Darwinism was a popular view that saw an analogy between natural selection among species and conflicts among nations: struggle and survival of the fittest made war the best means of determining which stations were actually superior. Warring nations were compared to dueling individuals, with countries having the same obligation as insulted people to demand satisfaction.

Leaders also used analogies with previous historical events to suggest how to increase the glory of their nations while avoiding humiliation. Previous heroic victories such as the Battle of Waterloo for the British and the exploits of Joan of Arc for the French provided analogical directions for future triumphs. But every country also had a history of disappointments, which served as analogical suggestions about how to avoid future humiliation. Some of these analogies were so prominent in people's minds that they functioned as national symbols of victory or defeat, for example the Serbian loss to the Ottomans in the Kosovo battle of 1389.

People from different countries often use metaphors to refer to each other, usually with derogatory intent. For example, some British refer to the French as frogs because of their eating habits, and the French refer to the Germans as les Boche by analogy to

cabbage. I already described the embodied metaphor used by the French and Russians in encouraging each other to hold firm.

Although analogies can impel nations toward war, they sometimes can produce appropriate caution. In the Cuban Missile Crisis of 1962, President John F. Kennedy resisted the urgings of his military advisors for strong action against the Soviet Union because he had just read Barbara Tuchman's book about the First World War, *The Guns of August*.   Kennedy did not want to repeat the stumbles into disastrous war that occurred in 1914.

Emotions and Actions

The analogies just described all had substantial emotional components, ranging from the arousing to the fear-avoiding. More generally, emotions played a huge role in the pre-history and occurrence of the First World War, through their impact on national attitudes and momentous decisions.

The value map in figure 9.1 already suggested how emotions loom large in thinking about nations and countries. Patriotism is love of country, where love is the same combination of cognitive appraisal and physiological perception that chapter 4 discussed with respect to romance. Patriotism is also connected with other complex emotions such as pride, prestige, glory, and sense of duty. As part of the aristocratic culture that most of them shared, monarchs and leaders were much concerned with the honor of themselves and their countries.   Honor is respect give to someone of good reputation in accord with moral standards of behavior. Emotions are clearly a big part of it, including the pride that comes from being an honorable person and deserving the respect of others, and the contrasting emotions of shame and guilt that would attend

violations of honor. Gentlemen of the era would fight duels to defend the honor of themselves of their families, and patriotic honor demanded analogous sacrifices.

Honor goes with a sense of duty, another complex emotional state akin to conscience, which can be understood as a kind of emotional intuition. Duties are obligations that people have to each other because of moral codes, but a sense of duty is not just a judgment that it would be advantageous to behave in a certain way. Rather, it is a feeling, a conscious experience based on the prospect of feeling good if the duty is matched and on the prospect of feeling bad if duty is violated. Honor and a sense of duty work together to cause people to act in ways that they view as enforced by their moral codes. Loyalty is another mental attitude that leads to action because it incorporates intentions to behave in morally expected ways.

 The prospect of war can stimulate positive emotions such as the desire for adventure and the accumulation of prestige, including glory for one's country as well as for oneself as a successful soldier. Military strategists in Germany and other countries had come to view offensive war as much more attractive than defensive war, attaching a much stronger emotional value to attack rather than defense.

Patriotism, national pride, honor, prestige, and sense of duty are all positive emotions that people have with respect to their own countries. In international relations, people also think about other countries, with the introduction of powerful negative emotions such as fear, regret, and humiliation. Fear dominated much of the thinking in the events leading up to the outbreak of war in 1914. People in each country feared that the other countries would become more powerful and rich, leading to the decline of their own country. Specifically, the British feared that the German Navy would become as

powerful as their own, while Germans feared that their lack of colonies would limit economic growth and world prestige. The French feared that Germany would invade as it had done successfully in 1870. Austrians feared that the rise of Balkan states would lead to loss of Empire. Fears mingled with ethnic prejudices, with Slavs and Germanics each fearing the dominance of the other. One of German leaders' greatest fears was that it was being encircled by France and Russia. Leaders of each country feared that a first attack by other countries would provide an advantage. Hence leaders had to make complex inferences about intentions and emotional states in the minds of other leaders, a very difficult kind of adversarial problem solving.

Leaders' fears were intermixed with other negative emotions such as suspicion and mistrust. The Moroccan and Balkan crises that led up to the First World War had the unfortunate effect of increasing these negative emotions. Even when a solution was found, the countries involved became increasingly suspicious of each other through realizing that the other leaders were capable of deception and betrayal, with the capacity to produce harm to their own countries. Suspicion is a kind of fear that another agent will do something harmful. As war drew close, some leaders in Germany came close to panic, a version of fear that is extreme, sudden, and overwhelming.

A decade before the outbreak of the World War I, there was a modicum of trust among European leaders, based partly on the personal relationships of monarchs who were often cousins and partly on the common aristocratic backgrounds of the political and military leaders. But a series of conflicts in Africa and the Balkans resulted not only in the absence of trust but in the more distinctly negative emotion of mistrust. Chapter 4 gave an account of trust in romantic relationships that applies equally well in

international relations and extends naturally to mistrust. Trust is not just a cognitive expectation about the behavior of others, but also a good feeling about them. Similarly, mistrust is not just a probability attached to people behaving badly, but a negative feeling about them that they are bad persons capable of doing bad things. Like all emotions, trust and mistrust have strong connections with action, leading you to depend on people you trust and be suspicious of people you mistrust. Like all emotions, mistrust integrates physiological gut feelings with judgments about what the other person is capable of doing.

Commitment is important to the romantic relationships described in chapter 4, and also to international relations that involve alliances.   The cascade of actions that produced World War I resulted in part from commitments among the two major alliances: Germany with Austria-Hungary and France with Russia and Great Britain. Like trust, commitment is a cognitive-emotional process, but differs in including a forward-looking element of intentions concerning how to behave in particular situations.

Even more than positive emotions, negative emotions such as fear, anxiety, suspicion, tension and mistrust can generate emotional spirals, with one person's behavior increasing mistrust in the other which then results in behaviors that reciprocally increase mistrust. In both romantic relationships and international negotiations, such amplifying feedback loops can lead to situations where possibilities of trust and mutually advantageous cooperation evaporate. Chapter 4 described the theory of Murray and Holmes that there are unconscious rules operating in people's minds for generating trust, and the same is true for suspicion and mistrust. Possibilities include the following: *if betrayal then mistrust*; *if deception then mistrust*; *if avoidance then mistrust*. These rules

are not simply verbal statements that could easily become accessible to consciousness, because of their strong emotional component. The last rule is better represented using the notation *<avoidance>→<mistrust>* to indicate that avoidance is partly physical movement associated with negative emotion, and that mistrust is not just a neutral cognitive state but also a negative emotional state associated with physiological responses such as gut feelings.

Other negative emotions that come into play in international as well as romantic relations are anger, hostility, and resentment. All of these are physiological responses in individuals tied to cognitive appraisals that another agent is blocking accomplishment of goals.

The most complicated emotions that operate in all kinds of human relations are emotions about emotions. Fear of humiliation was a common experience among political leaders who thought that they and their countries might be humiliated as a result of military and diplomatic defeats. Humiliation is already a highly complex emotion, a loss of pride, self-respect, and dignity, each of which are positive emotions. So fear of humiliation is fear of losing a combination of other emotions. Because the term "meta-emotion" has already been used in a different sense, I will call emotions about emotions "nested" emotions.

Here are some additional examples of nested emotions: hope for forgiveness, love of honor, longing for love, fear of fear itself, lust for glory, fear of shame, dread of embarrassment, hatred of boredom, wanting to be brave, falling in love with love, fear of commitment, disgust at lust, daring to be proud, pride of love, and fear of disappointment. Generalizing to include not only one's own states but also the emotions

of others, we get additional examples such as being annoyed at someone else's resentment, being happy at someone else's satisfaction, trusting someone not to let you down, and being fed up with the tensions in an international or romantic relationship.

Nested emotions are a major problem for purely physiological theories of emotion. There are no obvious physiological correlates of specific emotions like fear or humiliation, let alone for the far more complicated situation of suffering from fear of humiliation. Purely cognitive theories are similarly limited in that, even if they could identify the complex appraisal that goes into suffering fear of humiliation, they cannot explain why this goes with the kind of feeling that provides a strong motivation for action.   The facts that fear of humiliation feels bad and that hope for love feels good demand a physiological component for nested emotions.   Fortunately, the semantic pointer theory of emotions can handle both cognitive complexity and physiological input through repeated neural bindings. The human brain's capacity for recursive bindings naturally accommodates nested emotions about emotions.

A key function of emotions is to produce actions. The most important actions leading to wholesale fighting in World War I included the assassination of the Archduke by Serbian nationalists (inspired by patriotism), the delivery of the aggressive ultimatum to Serbia by Austro-Hungarian leaders (inspired by outrage), and the announcement of backing for Serbia by Russia (inspired by pro-Slav feeling and enthusiasm for war). Without emotions, people are not easily motivated to do anything at all, whereas national pride and fear of defeat can generate extreme behaviors in both leaders who declare war and in ordinary people who willingly fight in the trenches. But emotions do not

automatically lead to action, for there may be layers of inference that determine how people act.

Inferences

Deductions or inductive generalizations that contributed to the outbreak of war in 1914 are hard to notice, but there were many abductive and emotional inferences. The abductive inferences occur when the leaders of one country try to figure out what the leaders of another country are thinking. Each action and communication generates questions such as: Why did they do that? Why did they say that? Generating answers to such questions is a matter of inference to the best explanation, trying to come up with the most coherent interpretation of what the adversary is doing. For example when Austria responded to the assassination of their Archduke by delivering an ultimatum to Serbia, the Serbs and Russians inferred from the extreme way in which the ultimatum demanded Austrian control over Serbia that Austrians actually wanted war. Attribution of wanting is an act of abductive inference.

The inter-agent inference required to figure out what an adversary is planning is greatly complicated by the problem that opposing countries are governed by a multitude of agents. It is hard enough to infer what one central figure such as Tsar Alexander was thinking, let along to infer what whole groups of military and political leaders are also thinking. Moreover, decisions such as declarations of war often result from interactions among various leaders and factions, not to mention public opinion manifested in newspaper reports and editorials. Oscillations in the relative power of different factions can make the overall direction of a government hard to read. Hence the abductive

problem of inferring the emotions and intentions of decision makers in opposing countries is daunting.

Anticipating what foreign leaders are likely to do also requires guesses about their multimodal rules that govern their reactions such as trust and mistrust. It is difficult to figure out the conscious representations such as beliefs and emotions that operate in the minds of others, and even harder to discern their rules that are unconscious because they connect a diversity of sensory, motor, and emotional states.   Another problem is that the decision making in a country may result from interactions among sub-groups with different interests: diplomats tended to be oriented toward peace, whereas military leaders were more likely to advocate war.   Hence inter-agent inference in international relations is made extraordinarily difficult by the need to consider different factions in opposing countries, and by the need to infer multimodal rules that may be hard to express in language.

Emotional inferences also abounded in the run-up to war, both motivated and fear-driven.   All leaders were prone to exaggerate the strengths of their own countries and to underestimate the weaknesses of their opponents. All were clearly overoptimistic about the value of war and its eventual results. For example, Russia ought to have learned from its defeat by Japan in 1905 that its military strength was not proportional to its huge army.   Motivated inference inclined people to look for evidence that supported conclusions that generated positive emotions such as national pride, rather than objectively to expect disasters that could result from a drawn-out conflict using new technologies such as machine guns and barbed wire. Just like romantic couples, political ideologues, and stock market speculators, military leaders have a hard time distinguishing

actions that really do promote their goals from actions that merely seem to do so. Motivated inference can also make leaders convinced that, even if they want to avoid war, the present is a relatively good time to be involved in war.

It is also easy for military and political leaders to succumb to fear-driven inference, which leads them to believe that a situation is even worse than it is. The spiral of negative emotion, the amplifying feedback loop of fear, suspicion, and mistrust, can contribute to the conviction that war is inevitable. Obsession with honor and fear of humiliation can help people to take actions that they ought to be able to recognize as counter to the best interests of themselves and their country. It is not at all paradoxical that leaders (and ordinary people) can be prone to both motivated and fear-driven inference, any more than that people are at different times capable of happiness and fear.

Not all emotional inference is as irrational as motivated and fear-driven inference usually are, because emotions can valuably contribute to judgments about the best way to satisfy one's goals. There have not been many just wars in history, but in a few cases leaders did make emotional decisions that were both prudent and moral. For example, in the Second World War, France, Great Britain and the United States went to war in response to attacks by Germany and Japan. These decisions were rational even though they were also clearly emotional, driven by well-justified fears of domination. All practical inferences about what to do have an emotional component that takes into account the value for the individual of particular goals. Mathematical cost-benefit analysis is no substitute for caring about things sufficiently to become prone to emotions such as fear and pride.

In sum, military and political decisions about whether and how to wage war result from a combination of abductive, practical, and emotion-driven inferences. Abductive inferences are rational when the conclusion reached is the best explanation that takes into account all the relevant evidence and considers alternative hypotheses. Practical inference is rational when the action chosen is the best plan taking into account all the relevant consequences and considering alternative plans. Rationality is severely undercut, however, when motivation and fear lead people to jump to conclusions about what to believe or what to do without adequate consideration of the full range of evidence and alternatives.

Communication

It is futile to try to reduce the development of war to operations in the minds of individual leaders. How leaders think is dependent on interactions both within countries and across countries. In 1914, the monarchs, political leaders, and generals all had staffs of advisors with whom they regularly communicated. Such interactions produced much transfer of factual information such as troop deployment, but also nonverbal communication of emotional information concerning how people were evaluating events. Within each country, leaders shared their hopes and fears as well as their beliefs. Regular meetings ensured that these communications could be face-to-face and therefore not purely verbal.

Emotional communication opened the door for collective motivated inference. Individuals succumb to motivated inference when they use evidence selectively in order to reach conclusions that fit with their goals rather than reality. Communication is also selective, because people can choose what verbal and nonverbal information they want to

transfer to which people.   Hearers can similarly be biased in what messages they take seriously, guided by goals including the desire to belong and fit in to a group.   Hence motivated inference at the group level can be even more distorting than in individuals, providing a major source of groupthink.

Communication brought about the spread of beliefs and emotions within countries that influence overall decisions.   For example, the British cabinet and parliament were reluctant to go to war with Germany, but was swayed in part by the inspiring oratory of Prime Minister Grey.   Communication among leaders and the populace can generate emotional waves of support and collective solidarity, both emergent from interactions among individuals.

Direct meetings between heads of state, leaders, and diplomats were rarer in an era without passenger airplanes. Monarchs had occasionally met with each other, but alliances and responses to crises had to be worked out by representatives such as diplomats whose mobility was restricted. Frequent international communication occurred by telegrams, which are restricted to verbal communication and required considerable abductive inference to produce interpretations. One important exception was the trip that the French President made to Russia in July 1914, which cemented the alliance between Russia and France and firmed up their resolve to take on Germany and Austria-Hungary.

It therefore seems that at the international level there was limited opportunity for the exchange and elicitation of semantic pointers that relied on more than verbal information found in sentences.   Hence leaders had fewer opportunities to make good abductive inferences about each others intentions, so they naturally fell back on motivated and fear-driven thinking.

Minds and Groups

As in previous chapters, full understanding of international affairs and the origins of war cries out for a solution to the person-group problem: pinning down the relation between individual minds and collectives such as nations and countries. This problem arises even for very small groups, because people often use expressions such as "happy couple" or "dysfunctional family". Is the happiness of a couple just the sum or average of the happiness of the two people in it, or perhaps the happiness of the least happy member of the couple? Alternatively, perhaps couple happiness is an emergent property of the couple considered as a whole. Or perhaps, in accord with extreme holism, individuals do not exist because the couple is only real as a social process.

The person-group problem is even more acute in international affairs, which requires grasping the complex relationships among minds in individual leaders and the public, on the one hand, and important collectives such as government cabinets, military staffs, diplomatic corps, nations and countries, on the other. Historians and international theorists find it natural to talk about the assumptions, desires, and fears of whole countries, which is very puzzling if mental processes are brain processes.   How can it make sense to talk about the fears of Germany or the desires of France, when a country as a collective of people does not have a brain? Is there an alternative to the stringent view of methodological individualism that talk of such entities is bogus and should always be reduced just to talk of individuals, and to the wildly holistic view that the collective is the fundamental entity so that group mental states are just social facts?

Social cognitivism helps to solve this empirical and ontological problem by working out the mental mechanisms operating in individuals, the social mechanisms

operating in collectives, and the connections among mechanisms at both levels. The theory that all mental mechanisms result from construction and transformation of semantic pointers provides an answer at the individual level. The basis for the interactions between individuals in groups is then semantic pointer communication, including the approximate transfer and elicitation of semantic pointers in one individual by another. These conclusions may sound like methodological individualism, reducing the operations of groups to the operations of brains, but my view is more complicated in several respects, concerning mental representations of groups, interactions governed by groups, and emergent properties of groups.

First, the semantic pointers of the individuals include emotionally powerful representations of the groups. You cannot have patriotism without a representation of the country that you love, or nationalism without a mental representation of the nation with which you identify. Patriotism and nationalism are not simply abstract ideas, but emotionally powerful brain/mind processes connected to action by virtue of the way in which individuals including monarchs, leaders, and the general population viewed themselves. Patriotism and nationalism assume that there actually are countries and nations about which people have emotions and beliefs.

Second, the existence of groups is needed to explain the nature of the interactions that take place between individuals. If two people form a marriage, or if leaders belong to the same party or club, or even if large groups of people are all citizens of the same country, then such connections affect the frequency and manner with which people interact. These interactions then determine what semantic pointers will be communicated between them. For example, two people who are both members of a government cabinet

are likely to interact with each other regularly, and thereby to communicate cognitive and emotional states in ways differently than would happen with members of the general population.

Third, group interactions have emergent results, allowing the collectives to have properties not found any one individual, such as declarations of war. In autocratic monarchies, the declaration of war by the country is synonymous with the declaration of war by the monarch. But in republics and constitutional monarchies with powerful legislatures, declaration of war has to be performed by a parliamentary decision made through the interactions of the members of Parliament and various leaders, partially influenced by the opinion of the populace. Hence properties of the country such as being at war do not reduce to the decisions of individuals.

So social cognitivism avoids the oversimplifications of methodological individualism and collective holism by working out how the parts affect the wholes and how the wholes affect the parts. Resulting changes such as the debacle of the First World War are then best understood as multilevel emergence rather than unidirectional causality. Among other advantages, this approach discourages attributing blame to just one collective such as Germany, or to just one individual such as Kaiser Wilhelm. My conclusion is roughly compatible with Christopher Clark's:

> The outbreak of war was the combination of chains of decisions made by political actors with conscious objectives, who were capable of a degree of self-reflection, acknowledged a range of options and formed the best judgments they could on the basis of the best information they had to hand. Nationalism, armaments, alliances and finance were all part of the

story, but they can be made to carry real explanatory weight only if they can be seen to have shaped the decisions that – in combination – made war break out.

My main disagreement, however, concerns whether leaders really did form the best judgments they could rather than frequently succumbing, as all people do, to motivated and fear-driven inference.

Historians and specialists in international relations often talk about national interests, but what are they? I take beliefs, concepts and values to be processes operating in individual brains, but interests in the sense of matters of importance can sometimes also be ascribed to whole countries. Countries can cease to exist or be re-created, as happened with Poland which was eliminated in the 18th century but revived in the 20th. So Poland might be said to have an interest in survival and revival, understood as an aggregate of the desires and needs of the people who constitute the Polish nation and who value having a country. However, this way of talking is figural rather than literal, because interests carefully construed are mental states which are neural processes. The conclusion below discusses the conditions under which such figural discourse can be appropriate.

Historical Explanation

This chapter provides a new model for historical explanations, which are usually just narratives. There is no prospect for converting historical explanations into deductive ones, because, as with biology, there are few if any general laws that can be instantiated to apply to rich historical cases. But if social cognitivism is on the right track, then narratives can be deepened by attention to cognitive and social mechanisms, all based on

semantic pointers. Then narrative explanation is expanded into mechanistic explanation, producing what might be called mechanistic-narrative explanation.   Good historians, like good anthropologists, provide thick descriptions of the details of important events and practices. Social cognitivism offers the prospect of also generating deep descriptions that tie these details to underlying processes of inference and communication. Mechanistic-narrative explanation is also valuable in non-social historical fields such as biology (e.g. how humans evolved) and cosmology (e.g. how the universe developed).

The writing of history can then benefit from psychology that goes beyond the scientific limitations of folk psychology and the obsolete ideas of Freud and Jung. My template for historical explanation is the social cognitive-emotional workup, applied in previous chapters to prejudice, ideology, economics, and religion. This kind of investigation depends heavily on the detailed investigations carried out by historians such as MacMillan and Clark.   Only by looking at the rich historical record found in documents and memoirs can the main concepts, values, beliefs, and emotions be identified. Historical narratives are invaluable for identifying the most important groups and interactions that affected historical developments, such as the outbreak of war. Social cognitivism is not a replacement for history any more than it is for social psychology, politics, economics, sociology, or anthropology. Rather, theories about cognitive and social mechanisms enhance any social science investigation by connecting it to how people think and communicate.

Social cognitivism undercuts a distinction often made between causal explanation and historical understanding, where the latter is supposed to result from hermeneutic interpretation of the meaning of actions from the actor's point of view.   Such

interpretation is supposed to use a kind of ineffable empathy irreducible to causal relations. But I have suggested that empathy is itself a psychological process that operates in three modes: neural mirroring, conscious analogy, and unconscious simulation using multimodal rules. It then becomes possible to evaluate different empathic interpretations based on how well they actually explain the actions of people such as national leaders. Instead of just the subjective feeling that a historian might have about what people were doing, we can combine historical evidence with current understanding of cognition and emotion to construct and evaluate much more detailed accounts of what was plausibly going on in the minds of leaders such as Kaiser Wilhelm.

On this view, historical and social methodology is not radically different from that of the natural sciences, because all of them seek mechanistic explanations using data and models. But there is an important difference in the relevant mechanisms, because people have mental representations, inferences, and communication not found in atoms, molecules, and most cells.

Social Cognitivism as a Theory of International Relations

In addition to providing a new model of historical explanation, social cognitivism offers a new approach to international relations that can absorb some of the insights of current theories but provides much deeper accounts of how countries interact with each other. Like the theory known as realism, social cognitivism acknowledges that nation states are actors in international politics and that different countries have different interests. But it recognizes that the actions and interests of countries depend on the actions and interests in individual minds, which may be far from rational because of emotional factors such as motivated and fear-driven inference. Social cognitivism

improves on realism by (1) tying the actions of states to mental and social processes involving individuals, including leaders and the public, and (2) by rejecting implausible assumptions such as rationality and overwhelming self-interest. The First World War illustrates how badly nations can rationally pursue their own self-interest: everybody lost.

The international relations theory called liberalism emphasizes international cooperation based on common goals such as peace and prosperity. It is odd that realism and liberalism have been taken to be competing theories, because history makes it clear that sometimes nation states act in ways that are self-interested applications of power politics, but also that sometimes they act in ways that are much more mutually beneficial. Expecting states to be one or the other is like supposing that humans must all be mean or all be nice, or even that one individual must be always mean are always nice. Rather, understanding the complex of beliefs, values and emotions that operate in individual minds reveals how different leaders operate with different motivations, some benevolent and some malevolent. Social cognitivism goes beyond liberalism by looking at the mental and social mechanisms that can lead countries to act in ways that might be viewed as cooperative as well as power-driven.

In the academic field of international relations, a more recent view called constructivism is seen as a challenge to both liberal and realist theories. Constructivist international relations claims to pay attention to the ideas that define international structures and the identities of states and cultures. However, constructivists fail to connect what are supposed to be cognitive structures operating in individual minds with the theories of mental representation developed in cognitive psychology and

neuroscience. Constructivist international relations is just as mind-blind as political theories based on rational choice, despite frequent use of terms such as "idea".

Moreover, constructivists provide no way of understanding the relation between ideas operating in individuals and the social processes that are crucial for the operations of countries. Social cognitivism agrees with constructivism that ideas matter, but says how they matter by relating them to neural theories of concepts, values, beliefs, and emotions. Moreover, it can explain how ideas have social effects because of the ways in which communication between individuals works through the transfer and elicitation of semantic pointers.

There are other current theories of international relations, but I leave for the reader the task of contrasting social cognitivism with schools such as Marxism, functionalism, and post-colonialism. The approach I recommend, using a social cognitive-emotional workup based on neural theories of thinking and communication, can build on insights from all of these approaches as well as realism, liberalism, and constructivism. But it goes beyond current theories and methods in the study of international relations through an account in which interests and ideas are not just vague stipulations. Instead, they are neural processes occurring in the minds of individuals interacting to form social groups, right up to the level of nations and countries.

As previous chapters showed, social cognitivism is not just a theory of international relations, but serves as a general theory of social processes at all scales. After all, people are using the same brains no matter whether they are pursuing romance, practicing a religion, or negotiating treaties. These are all social activities that depend on cognition, emotion, and communication. Hence processes of trust, mistrust, and

commitment that are crucial in international relations are not just analogous to what happens in romantic couples, but identical.

Summary and Discussion

Rationality and irrationality concern two kinds of thinking, about what to believe and about what to do. In the actions and decisions that preceded the First World War, the leaders of all the main countries were irrational in both ways. They operated with beliefs such as the prospects for a brief and successful war that were not backed by evidence, but merely by motivated inferences and biased analogies, all driven by emotion more than evidence. In the performance of important actions such as mobilizing troops and declaring war, they were often myopic in not considering alternative actions that would have provided a better chance of success, and sometimes close to panic because of fear-driven inferences.

If we had to pick the most irrational of all the countries, the winner would probably be the leaders of Austria-Hungary, for their decision to respond to the assassination of Archduke Franz Ferdinand by invading Serbia, which cascaded into war against Russia, France, and Great Britain. The eventual consequence of this action was dismemberment of the Austro-Hungarian empire, with Austria and Hungary each reduced to much smaller countries through the loss of chunks of what became Poland and Yugoslavia. Austria-Hungary, however, held no monopoly on irrationality, as Germany, Russia, France, and Great Britain also suffered huge losses in people and power through a combination of faulty beliefs and decisions. It is fair to judge leaders in all these countries as irrational because, given their knowledge and goals, they ought to have arrived at more accurate beliefs and more effective actions.

A major contributor to collective irrationality was the power of concepts such as *nationalism, patriotism, honor,* and *duty*. These emotional values fueled negative anticipations of the potential actions of opponents, generating fear, anxiety, tension, and hostility. With such emotions running riot, it is not surprising that leaders rushed into decisions they later came to regret. Emotions in international relations are not inherently irrational, any more then they are in ordinary life, where emotions ranging from fear to love are sometimes based on appropriate evaluations of a situation. But spirals of emotion operating through social interactions and motivated and fear-driven inference can take human minds far beyond the limits of rationality. Leaders in all countries who instigated the First World War went into it believing that the war would be short, they would win it, and the war would be someone else's fault.

This chapter has shown how historical explanation and the understanding of international relations can be enhanced by applying detailed psychological, neural, and social mechanisms to real-world events. By applying the method of social cognitive-emotional workup to the origins of the First World War, I have tried to show the relevance of an integrated account of beliefs, concepts, values, rules, analogies, metaphors, emotions, inferences, and communication. The result transcends the limitations of purely narrative explanations in history, and provides insight into why the field of international relations has lacked a satisfactory general theory. Explaining social changes in both groups and individuals requires understanding the communicative interactions of cognitive-emotional minds; the result is mechanistic-narrative explanation.

Dealing with complex historical developments such as the outbreak of wars runs headlong into the person-group problem. Social cognitivism offers a solution that takes

into account the complexity of both cognitive mechanisms in individuals and social mechanisms by which individuals interact. Noticing this complexity is superior to trying to reduce the social to the individual or the individual to the social. The person-group problem has the same kind of solution as the mind-body problem addressed in Volume One. Just as a rich theory of how the brain works makes plausible suggestions about the emergent properties of mind, so a rich theory of how people interact with each other makes plausible suggestions about the emergent properties of groups. In both cases, explanations highlight multilevel emergence rather than unidirectional causation.

Groups do not literally have minds or mental states, but speaking of groups as having beliefs and emotions may be figuratively apt when: (1) the most influential individuals in the group have that mental state, (2) the mental state is influenced by the individuals conceptualizing themselves as members of the group, and (3) the mental state in each individual results in part from communicative interactions with other members of the group. These conditions are not a definition of group mental states, merely a characterization of when it is communicatively appropriate to mention them in figures of speech. Figural attribution of mental states to groups is even more apt when the groups do literally have emergent non-mental properties such as declaring war that result from the interactions of thinking individuals. In happy romantic couples, the happiness is not a property of the couple, but the interacting happy minds of the couple may lead the couple to become a marriage, which has emergent legal properties.

The mind-body problem and the person-group turn out to be interdependent. We cannot understand how groups operate via the people in them without appreciating how people work through mental operations in their brains. Correlatively, because social

interactions are such an important part of human lives, a full account of brains that can extend to emotions and the self depends on grasping how human minds are dramatically influenced by the minds of other people. What might better be called the brain-mind-group problem has a general solution based on multilevel interacting mechanisms.

This chapter completes my effort to show that the social sciences benefit from cooperation with the cognitive sciences to explain important kinds of social change. It is fair to ask what has been added by semantic pointer theories of cognition and communication beyond general ideas about minds. First, semantic pointers explain how thinking can be both embodied and transbodied, tied to human senses and emotions in practices such as military rituals, but also transcending them with abstract concepts such as duty and honor. The causes of human action can befactors in the world such as technology and forms of production, as Marx emphasized, but also values and ideas as many other social scientists have emphasized. There is no need to ask misleading questions about what is more fundamental to historical change, the world or ideas; via semantic pointers, minds interact with the world and generate new concepts that can help to change the world.

Second, semantic pointers provide an integrated account of cognition and emotion that covers both effective problem solving and irrational inference. Third, because semantic pointers can incorporate verbal, sensory, motor, and emotional information, they give rise to unconscious multimodal rules that govern actions in ways that are hard to identify verbally. Nevertheless, empathy and neural theory can join forces to try to discern the rules behind human interactions. Fourth, semantic pointer theories of cognition and emotion extend naturally to a theory of interpersonal communication that

covers both words and nonverbal messages. Transferring, eliciting, and prompting semantic pointers covers the results of gesturing, drawing, singing, marching, and facial expressions just as well as it covers talking and writing.

Many other kinds of social changes furnish history and international relations with other opportunities to develop social cognitive-emotional workups, for example to answer questions about the rise and fall of nations. Additional branches of social science such as social geography and cultural studies should generate more applications. Instead, my goal now is to apply social cognitivism to professions that often depend on the cognitive and social sciences, including medicine, law, business, education, and engineering.

Notes for Chapter 9

On historical explanation, see Mahajan 2011 and Stanford 1998.

Ravenscroft 2010 reviews folk (commonsense) psychology.

For psychohistory, see Freud 1962. Isaac Asmimov's psychohistory is a different, statistical enterprise.

Jackson and Sorensen 2010 review theories of international relations. See also Wendt 1999. For new work on emotions in international relations, consult http://www.e-ir.info/2013/06/12/emotions-in-international-relations/. Milkoreit (forthcoming) applies value maps (cognitive-affective) maps to climate change diplomacy.

Calhoun 2007 discusses nations and nationalism. Mock 2011 examines symbols of defeat.

My account of World War I is primarily based on MacMillan 2013 and Clark 2013 (quote from p. xxix). Wimmer 2014 reviews the sociology of war.

Thagard 1992 analyzes adversarial problem solving based on explanatory coherence.

On analogical uses of history, see Holyoak and Thagard 1996, Khong 1992, Macmillan 208, and Neustadt and May 1986.

Nisbett and Cohen 1996 examine cultures of honor.

Thagard and Finn 2011 consider moral conscience as emotional coherence.

The term "meta-emotion" covers both cognitions and emotions about emotions: https://en.wikipedia.org/wiki/Meta-emotion.

Projects: Do a SCEW case study of wars that might have occurred but did not, e.g. the Cuban missile crisis, and draw lessons about how to avoid war. Apply the multilevel mechanism method to other important historical question such as why some societies flourish more than others. Apply the multilevel mechanism method to other important questions in international relations such as how countries resolve disputes.

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