SOCIAL SCIENCE AS SCIENCE: WAY OF LIFE THEORY¹

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Abstract. Applying science's usual hypothetico-deductive approach to value preferences reveals the inherent structure of social relations, resolving social science's biggest question: the connection between the individual and society. Way of life theory (WOLT) finds four moralities connected via three "dimensions" which contain all matters which need to be regulated in order to live socially. WOLT relates every rational, social value to every other rational, social value in a strict, falsifiable theory. Only conventional scientific procedures of hypothesis, deduction, logic, and idealisation are employed.

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1. Introduction—the problem

In view of the efficacy of natural science (physics, geology, medicine, etc) thinkers have long advocated the use of scientific methods in social science. Auguste Comte (1896 [1853]: 455) called for a "physics" of society: "there is no chance of order and agreement but in subjecting social phenomena, like all others, to invariable natural laws."

Physics has its laws relating matter and energy, biology its systems of cooperating organs, ecology its interactions between species and environments. What are the parts of society and how do they fit together? No social laws have

¹ I am indebted to Angus Algie for his comments on several drafts of this paper. Many clarifications and other improvements resulted.

been found. With the exception of economics, and perhaps of linguistics and jurisprudence, the social sciences have failed to build a body of theory.

Numerous scholars have lamented the lack of any theory systematising values and culture. Political scientist C Wright Mills (1963 [1939]: 424): "A theory of mind is needed which conceives social factors as intrinsic to mentality." Psychologist Floyd Allport (1962: 7) called this "the 'master problem' of social psychology." Pioneer values researcher Milton Rokeach (1973: 168) wanted "to envision the kinds of ideological orientations that are theoretically possible in the future or even in some unknown social system on some other planet." Anthropologist Mary Douglas (1982 [1978]: 183) complained that "Culture is a blank space, a highly respected, empty pigeonhole ... a reproach to anthropology."

Some assert the science approach does not suit social science, some deride the quest as "physics envy" and some call it hopeless. Professor at The New School, Simon Critchley (2015): "There is a gap between nature and society. The mistake, for which scientism is the name, is the belief that this gap can or should be filled." Oxford sociology professor, Bent Flyvbjerg (2005: 38) is adamant: "The natural-science approach simply does not work in the social sciences. No predictive theories have been arrived at in social science, despite centuries of trying. This approach is a wasteful dead-end." Philosopher Charles Taylor (1971: 48) says bluntly: "a valid science of man [is] impossible."

Way of life theory (WOLT) does apply the "natural-science approach" to identify the parts of society and their interrelationships, and it does arrive at a predictive theory. So before considering further expert opinion, let us assume that society is part of nature and see where traditional natural-science theorising leads.

2. Values hypotheses and their social consequences

2.1. The usual science procedure is to *hypothesise* a relationship between two or more theoretical concepts and deduce its consequences. Reality can then be examined to see if the consequences are confirmed or refuted. For example, Newton's gravity theory interrelates two masses and their distance apart (F=m1.m2/d/d). From it, orbit positions can be deduced which can be checked by observing actual orbits of heavenly bodies.

To apply this "hypothetico-deductive" approach to society, let us hypothesise a relationship between *competition* and *cooperation*. These two concepts seem to exist and seem important. As we will later see, choice of concepts is not critical.

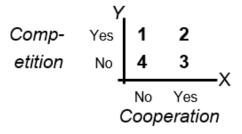
To interrelate concepts requires measurement of them. If we had measurement units, we might show the relationship as a graph. We'd plot the number of kilograms of competition on the Y axis against the litres of cooperation on the X axis.

Measurement units are not natural; they are man-made and must be agreed. Since we have no agreed units—here or anywhere in social studies—let us agree on the dichotomous measure of presence versus absence. That is, competition and cooperation are either there or they are not there. Adopting such extremes may seem simplistic but we have no alternative. Economics theory also employs this tactic.

This all-or-nothing "measurement" leaves the Y and X axes with the single interval and the graph reduces to a table showing the four possible combinations, numbered 1 to 4 in Table 1. In philosophical logic these are known as the four "truth values" and are expressed as: 1: Y not X; 2: Y and X; **3:** X not Y: **4:** not Y not X.

In effect, we have four hypotheses. What consequences might we deduce from them?

Table 1. Views of competition and cooperation on Y and X



2.2. The only place competition and cooperation exist in an objective sense is as thoughts, as patterns of neurons firing in brains. Let, then, four theoretical people take these four extreme positions. The Type 1 person accepts competition and rejects cooperation; Type 2 says yes to both; Type 3 accepts cooperation and rejects competition; the Type 4 rejects both.

Everyone is included and no one is counted twice. That is, everyone with a view. To cover all theoretical possibilities let us allow for a Type 5 who has no view of competition and cooperation. This person must be non-social—a hermit.

Assuming these four theoretical persons think logically and consistently, what sort of society would each type prefer?

The **Type 1**, who wants people to compete but not cooperate, must fear cooperation will undermine or interfere with competition. Cooperation must be some sort of crafty coercion such as favouritism or collusion for competitive advantage. To compete and not cooperate, individuals must interact warily, negotiating one-on-one, competing to win.

The **Type 2**, who accepts both competition and cooperation, must reconcile significant contradictions. This will require rules setting out when to compete and when to cooperate. Rules must be enforced which requires a command structure, so society needs to be hierarchical, where people compete with those of the same rank, cooperate with superiors and coerce subordinates.

The Type 3, who wants cooperation and rejects competition, must fear the latter will undermine the former, must be objecting to the struggle, worried the consequent inequalities would give rise to a coercive, dog-eat-dog society. Type 3s must want an egalitarian environment, where people harmoniously cooperate with each other.

The **Type 4**, who rejects both competition and cooperation must see them as pointless or dangerous. This would restrict social relations to the random or the coercive. Type 4s must feel delivered up to a capricious world.

Those are some consequences of the four relationships between extreme views of competition and cooperation. From individual preferences for two presumed values, we have deduced four mindsets and four preferred social structures—four moral positions. A possible Type 5 who has no preferences regarding competition or cooperation must be non-social and we cannot infer a moral stance.

2.3. I contend that the consequences deduced in §2.2—the four types of mindset and social structure—are unambiguous. Any ordinary understanding of competition and cooperation deductively yields those four types of person and no others. That is, the deductions are genuine: they are not possibilities and not probabilities but theoretical inevitabilities. Many more consequences may be deduced but, unless extra assumptions are made, no deduction will contradict the five WOLT types.

The unambiguousness relies on the contrast between the two concepts which renders their inherent vagueness immaterial. Had the two been similar or had they been unrelated, unequivocal deduction would have been difficult.

2.4. Philosopher Alfred Schütz (1963: 246) thought that, "The most serious question which the methodology of the social sciences has to answer is: How is it possible to form objective concepts and objectively verifiable theory of subjective meaning-structures?" The answer, evidently, is simply to use the methodology of the *natural* sciences. Here, the standard scientific approach has produced, in a few short paragraphs, an objective theory of subjective views. Clifford Geertz (1964: 47) tells us that Karl Mannheim sought in vain to derive a "non-evaluative conception of ideology." The hypothetico-deductive method imposes no evaluation on the four (or five) conceptions of ideology derived above.

The connection between individual and society is social science's greatest mystery. Elementary deduction solves it—at least for competition and cooperation. No authority has been called on (the ones quoted are either wrong or puzzled) and no prejudice or preference of mine played a role.

3. Real-world correspondences

3.1. Like a natural-science theory, WOLT has no dependence on reality; it is purely theoretical. Do WOLT's five theoretical types represent real people? If concerns for competition and cooperation exist and must be dealt with in order to live socially then, to the extent people think in extremes, the five types must exist: mistrustful, individualist 1s who want to negotiate with each other, competing to win; measured, hierarchist 2s who value propriety and require a rule-bound command structure; trusting, egalitarian 3s who seek harmonious interaction among equals; spontaneous, **fatalist 4s** interacting without pattern in a world governed by luck and imposition; and the autonomous Type 5 who is detached from social engagement.

Those descriptions seem lifelike and, indeed, approximate examples are plentiful. **Type 1**: Alexander the Great, Machiavelli, Locke, Dale Carnegie, Ayn Rand, Donald Trump, Richard Branson, Elon Musk, Adam Smith, Milton Friedman, Dirty Harry, Bart Simpson; Type 2: Confucius, Plato, Catholic church, Edmund Burke, Bismarck, Lee Kuan Yew, Kissinger, William F Buckley Jr, Sir Humphrey Appleby, Judge Dredd, Marge Simpson; Type 3: Jesus, Gandhi's salt march, the civil rights marches, feminism, Marxism, most political cartoonists, St Francis, Rousseau, Veblen, Chomsky, Keynes, Krugman, Atticus Finch, Lisa Simpson; Type 4: Lumpenproletariat, Chaplin's Tramp, Steptoe and Son, Jerry Springer's guests, Li'l Abner, Homer Simpson; Type 5: Taoism, some Buddhism, Diogenes, Lao-Tzi, Thoreau, Garbo, Howard Hughes, Whitman, Steppenwolf, Ignatius J Reilly.

The social sciences have many theories about individual types of people (Appendices 4 and 5) but throughout psychology and sociology no one ever names real people as illustrative examples. WOLT does this easily—despite, or perhaps because, it is deduced from hypothetical extremes.

3.2. The types are also recognisable at the social level, especially their difficulties with disruptions by unruly, illogical human beings. For example, the competitive Type 1 way of life fights a never-ending battle with the menace of cooperation. Laws against it are passed, large firms are broken up and fined for price fixing, and personnel are arraigned for nepotism and bribery. Type 2 discipline, honour, and information restriction, indispensable for armies and

bureaucracy, struggles with gossip, intrigue, turf wars and mutiny, while its attempts to regulate sex generate prudery and bizarre practices. The Type 3 requirement for harmony, and the impossibility of disciplinary action among equals, can lead to public confession of sins, charismatic leadership, cultism, and schism. The Type 4 may find relief from uncertainty, mistrust, and shorttermism at the bottom of a 2-ist hierarchy. Lashing out when blows outweigh windfalls will be ineffectual and often self-destructive.

3.3. Values need not be an individual's: a chamber of commerce would have a Type 1 outlook, a Freemasons lodge would be 2-ist, a greens party 3-ist, and a rioting mob 4-ist. Such groups should be more true to type than individuals since the common cause would smooth out the idiosyncrasies of their individual members.

In terms of political right and left in the world's democracies, the right consists of free-market 1-ism and traditionalist 2-ism, usually in an uneasy alliance, while 3-ism forms the left. The 4s are where others put them: right if populist, left if unionised.

4. Other contrasting value pairs

4.1. Apparently, hypothetico-deductive theorising makes connecting mentality and society easy: just take the four truth values from a pair of contrasting social concepts and deduce the preferred social relations of four theoretical persons adopting those positions. Here the contrasting pair was competition and cooperation. Would it matter if we used a different pair of social concepts? Logically, it cannot.

Theoretical people who think consistently cannot have a different preferred society for every different pair of contrasting values, so the four resulting mindsets and social arrangements should always be the four found in §2.2. That is, no matter what pair of contrasting social issues we choose to form four truth values, the result (if the deductions are unambiguous) must be the same four WOLT types.

4.2. Consider the perceptions human nature is bad and human nature is good. This matters as people's perceptions would influence their social behaviour. If you form the four truth values from these two positions (set them on Y and X axes as in Table 1), you will find bad not good yields the same competitive Type 1; bad and good turns out to be the rule-dependent Type 2, good not bad is the forgiving Type 3 and from not bad not good you will logically derive the Type 4's capricious society. The deductions are set out in Appendix 1.

We probably all ask ourselves, "What should I do?" and "Who am I?" The questions reflect a distinction dating to the 1930s in sociology (Merton 1957:

- 110, Albrow 1970: 21) and reflect two aspects of self-identity psychologists call role identity and social identity. These refer to whether you see yourself as performing a role complementary to others' different roles, or whether you feel you belong to a group of similar people. The concepts are explained in Appendix 1 and the consequences from the truth values deduced. They are the same go-getter 1s, order-loving 2s, concord-seeking 3s, and delivered-up 4s.
- 4.3. Taking a pair of concepts and examining their four truth-values is fairly obvious and academics occasionally employ it to consider the four possibilities arising from two concepts. I know of eight who did it to derive what might be called social types (Merton 1938, Swanson 1969, Marriott 1976, Douglas 1970, 1978, Ouchi 1980, Knoke 1990, Triandis 1995, Bowles 1998). Each theorist's issue-pair is unique (none overlap with pairs mentioned here) and, apart from a couple of mistakes, all find the same four types (Appendix 4).
- 4.4. We can now begin to see how values fit together. For example, the theoretical Type 1 believes in competition and in bad human nature and feels a role identity; that is, a preference for competition requires a belief in bad human nature and requires a role identity. Correspondingly, to prefer cooperation requires a belief in good human nature and a social identity. There is no flexibility.
- 4.5. Competition, cooperation, human nature and self-identity are surely important but weightier social issues are justice, freedom, and equality. These, too, deductively deliver the same types if the following contrasting pairs of preferences are allocated to the Y and X axes: just process and just outcome (a basic difference between political right and left); freedom-from and freedom-to (a distinction philosophy has pondered for over two centuries); and equality of opportunity and equality of condition (discussed for at least a century). The deductions are straightforward and are set out in Appendix 1 which also treats equality under law, nature, risk, and the most fundamental necessity of all living things: managing needs and resources.
- 4.6 No matter what the contrasting pair, all five types always come out the same. Is this a surprise? The natural world is as it is, so various theoretical premises should deliver the same predictions. Just as arithmetic using fractions, decimals or percentages always yields the same answer, no pair of social issues can unambiguously yield a social type other than the WOLT five. Were such a pair found, the theory would be falsified.

The parts of society are now found—four ideologies or moralities plus one non-social stance—and we have some insight into how they fit together.

4.7. Reasoning from the positions of individual persons is known in social research as "methodological individualism" (not to be confused with ideological individualism, i.e., 1-ism). It conforms to theorising in the natural sciences where the parts are interrelated to make up the whole.

The deduction from axial values to types does not imply causal direction. Values do not necessarily cause worldview, nor policy preferences social structure. Causes might go in the opposite direction. In the real world, too, ordinary social interaction should make the individual and the structural mutually reinforcing and mutually correcting.

4.8. According to sociobiologist EO Wilson (1996 [1989]: 111), "...in the study of culture there are no 'natural kinds' ... Most scholars appear to believe that such units either do not exist or, if they do exist, cannot be derived by any means currently available." We see, however, that natural kinds can be derived (or discovered) by means of science theorising, available for four hundred years.

5. **Scope and connections**

5.1. There is an unknown number of contrasting concept-pairs which yield the four WOLT types. There are also many pairs too specialised, or insufficiently extreme or contrasting, to unambiguously deduce the types—but which fit. Everything must fit. Whatever does not fit cannot be a valid concept within the WOLT domain.

The domain includes everything talking beings must take a position on in order to live together—the gamut of social psychology, ethics, and non-tribal politics. Some examples of Y and X issue pairs are: self-reliance and interdependence, invite and avoid material risk, avoid and invite social risk, pursue happiness and pursue misery, vengeance and forgiveness, power-to and power-with, phonics and whole language, scarcity value and labour value, shame and guilt, deeds and words, language substance and form, rights and obligations, polytheism and monotheism, integrity and sincerity. Most of these are vast fields and discussion of them in the WOLT context takes pages, however for most pairs the fit to the four types may be seen by reflecting on the four truth values: Y not X, both, X not Y, neither. (For more pairs see Appendix 2.)

The same goes for specialist YX pairs such as Kant's price and dignity, Kissinger's conqueror and prophet, Hirschman's exit and voice (his "loyalty" is Type 4), Schütz's Um-zu and Weil. That they fit, as do the two concepts of liberty, two of justice and three of equality (§4.5), confirms their validity, sharpens them, extends them, and relates them to the rest of the rational, social universe. Ordinary science theorising has revealed a law which integrates disparate philosophical esoterica into an overall framework of moralities.

- 5.2. The axes connect social preferences. For example, all social persons (non-hermits) either accept all, or else reject all, the Y issues. That is (referring to §4.5), either accept or reject all of: competition, bad human nature, freedomfrom, just process, equality of opportunity, and all the Y values listed in §5.1 and many more. The theory is strict: believe one, believe them all; oppose one, oppose them all. Theoretically, to know a person's view on one Y issue is to know their view on all Y issues. The same applies to the X values.
- 5.3. It also applies to a third set of issues we can call Z. The Z axis exists because there are three possible pair-wise divisions of four types. Consider coercion. According to §2.2, Types 1 and 3 reject coercion and Types 2 and 4 accept it. Table 1 shows the Y axis distinguishes 1+2 from 3+4 and X divides 1+4 from 2+3. Thus coercion, which divides 1+3 from 2+4, is on Z. Each theorist listed at §4.3 used two axes but between them they used all three (Appendix 4).

Deduction from coercion and competition, or from coercion and cooperation, will also unambiguously yield the four types. (Try it!) The Z axis is perpendicular to Y and X, and in Table 1 it lifts Types 2 and 4 above the page surface. (If Y and X are length and breadth, Z is height. If the four types were at the corners of a room on the floor, Z now raises Types 2 and 4 to the ceiling corners.) Z issues are fewer; they include prescription, authority, power-over, deference, rules, ritual.

The parts and connections of the rational, social world are now identified. WOLT states that there are four social ways of life interrelated by three axes which contain all social values. Each extreme position on any social issue has a fixed relationship to each position of every other issue.

- 5.4. Three dichotomised axes imply eight types (a room has eight corners) but the other four contradict the premise of consistent preferences and cannot exist. Putting + and - for *present* and *absent* (or yes and no, accept and reject), the valid positions on the X, Y, Z axes are: 1: -+-, 2: +++, 3: +--, 4: --+(this is readily seen by reviewing their stances on cooperation, competition, and coercion) and the XYZ antipodes, +-+, ---, -++, ++-, do not exist.
- 5.5. Any issue—hence any axis—has two types for it and two against (Table 1). As the plus and minus signs in §5.4 show, each type agrees with each other type on one axis and disagrees on two axes. So regarding any issue, each type has one ally and two adversaries. From the perspective of each type, all axial issues are meaningful but the three other types are not meaningful and are in error—either foolish or wicked. The non-social fifth type, where recognised, might be respected for having escaped worldly stresses, for knowing a higher reality.

5.6. Values on an axis must be either all accepted or else all rejected and, in addition, because there are only four types and it takes only two axes to determine a type, the consistent combinations from three axes are constrained in accord with §5.4. For example, someone who accepts Y must either accept all the values on both X and Z (and thus be Type 2 + + +) or else reject all the values on both X and Z (Type 1 - + -). If, say, you accept competition then you can accept forgiveness (§5.1) providing you also accept ritual (§5.3) but if you reject forgiveness you must reject ritual. This relationship is not known to sociology.

Theoretically, if a person's preferences for two issues on two axes are known, then all preferences are known. Even if there are only twenty relevant social issues, the predicted coherent and incoherent relationships number in the thousands. Appendix 2 lists dozens of axial issues.

5.7. The constraints of §5.4 mean that a consistent person who switches preference on one single issue must change type. To change type requires a reversal of all preferences on two axes. So the consistent person who admits to being wrong on one thing must admit to being wrong on most things. A single error augurs total conversion.

Thus WOLT shows that we might know a lot about a person on quite brief acquaintance. It also sets out possibilities of epiphany and surprise. Since any social type might convert to three other social types, it allows twelve permutations for radical conversion, in addition to the possibility of withdrawal to 5-ism.

Relationality

6.1. Social scientists long for agreed definitions (e.g., Ostrom, 2006: 4, Oyserman, 2002: 44) but definitions can only decide meaning in legal instruments and other man-made situations. In nature, meaning comes from context, and in science theory, context is explicit. Concepts exist in relation to other concepts; lone concepts do not exist. Scientific meaning lies not in a concept's purported properties but in its "relationality," its relationship to other concepts.

Concepts agreed but not defined will necessarily be very distinct. There is no room for nuance: no one confuses mass and distance with each other. WOLT achieves distinctiveness by interrelating concepts which are intrinsically contrasting.

6.2. From the relationality of talking beings' perceptions we have found that four types span the breadth of morality. The same relationality is also the key to depth, to refining or sub-dividing the types. If an axial issue is divided into two new issues these will be valid provided their four truth values are the

four types. The new issues will, then, lie on two axes, prompting consideration of the third. For example, just process on Y (§4.5) can be split into English and Roman law as Y adversarial and Z inquisitorial, leading to restorative justice on X. (Pepperday 2009, 114).

In principle there is no limit to the depth or precision of type descriptions and their axial interconnections. Normally, to refine a concept the social scientist employs subjective, language-dependent argument. Refinement of a WOLT type is by interrelating definition-free concepts and must satisfy objective, axial conditions.

6.3. It is not so much that the social sciences are in error—indeed, WOLT often confirms their insights—but that they say so little about how the parts fit together. Oppositional pairs such as competition and cooperation, freedom-from and freedom-to, just process and just outcome, were worked out but not set in a relational framework. Instead of interrelating them, scholars described their properties. That is not science; that is an inconclusive discussion.

Apart from usual language ambiguity, describing values inevitably confounds mindsets because every value is supported (and rejected) by two mindsets. For example, freedom-from is accepted by both 1s and 2s. Wheelerdealer, entrepreneurial, independent 1-ism is very different from formal, bureaucratic, authoritative 2-ism; discussion of freedom-from in isolation, or in simple comparison with *freedom-to*, can never distinguish those mindsets. This confusion afflicts all axial values—basically, all moral positions—if they are analysed as lone, definition-dependent objects.

Moral philosophy knows many oppositional pairs but, curiously, never treats them with philosophical logic, never sets out the four truth values. Without the interrelationships within each pair, there is no way to systematically interrelate different pairs across the social spectrum.

7. Idealisation

- 7.1. To assume theoretical people think in extremes with perfect consistency is to idealise. Science theory disregards reality and idealises by interrelating extreme, perfect, pure "ideal-types." Newton's gravity theory (F=m1.m2/d/d) interrelates two masses which are isolated, perfectly spherical, and of uniform density—conditions which nowhere exist. Galileo theorised gravity as a perfect sphere rolling on a perfect plane which it touches at a single point, not landslides. These idealised theories are needed to understand heavenly motion and landslides.
- 7.2. Idealisation has a long history. Plato's and Aristotle's "forms" and Kant's "thing-in-itself" are idealisations. Max Weber insisted on idealisation for social analysis but invented his *Idealtypen* ad hoc, describing their properties,

not interrelating them. Ideal-types do not exist in reality yet they must be discovered; this can only be done via relationships.

Physicist-philosopher, Ernst Mach (1906: 192) thought that, "All universal physical concepts and laws... are achieved through idealisation." Numerous thinkers have made the point, e.g., Kaufmann (1944), Hempel (1965 [1958]). Galileo and Newton acknowledged that theory must deal with idealisations (Matthews, 2005: 219, 221) and launched modern science by subordinating reality to idealised relationships. Only categories established via relationships can be independent of language.

7.3. Economics, which rules the world, theorises (unlike other social sciences) by interrelating extreme, presence-absence idealisations such as perfect competition, perfect information, market clearing. No economist thinks this is reality. A relationship requires measuring but no social measurement units exist. Economics has dollars but elsewhere in social science, the extreme of presence versus absence is the only measure available. Economics has achieved a body of theory vital to modern government; WOLT shows its approach can work for other social sciences.

8. **Falsifiability**

- 8.1. No theory can be proved true but scientific theories are liable to being proved false. In social science almost nothing is falsifiable but falsifying WOLT is largely self-evident—as it usually is in the natural sciences. It is falsifiable theoretically by unambiguously deducing from two relevant concepts a social type which is not one of the WOLT four (a single instance would suffice), and falsifiable empirically by identifying people or organisations which contradict its types or whose preferences contradict its countless predictions (§5.6). Relevant is any issue (value, matter, concept, concern) toward which a stance or policy must be worked out in order to live socially.
- 8.2. Do social concepts exist? WOLT establishes relationships between perceptions of concepts so the perceptions exist in the scientific sense. In sociology studying perceptions is known as the Verstehen approach and is thought to be incompatible with science theorising (e.g., Schütz 1963: 246, Scruton 1983: 484). Perhaps, though, it is necessary.

Because neurons fire, perceptions should be as real as breath or pulse. According to fMRI testing, competition and cooperation are associated with distinct brain regions (Decety, et al. 2004:744, Lieberman 2007: 275). WOLT says for both to occur, and for both not to occur, coercion must be present (§5.4, §5.6). Each occurs on its own only if coercion is absent. If a coercion region can be located, it should be possible to test these predictions. Is the competition

region also the region of all Y values and the cooperation region that of all X values? WOLT might be a fruitful testing framework.

Neuron measurement would be the only prospect of developing units of measure, and of refining the theory by expressing interrelationships more precisely than accept/reject.

8.3. WOLT assumes absolute consistency so no real person or organisation will perfectly exemplify a WOLT type—just as no landslide perfectly exemplifies a sphere on a plane. WOLT might be judged empirically false if predicted acceptance and rejection of the axial beliefs, or adherence to the types, are not significantly different from chance.

Economic theory, too, assumes people are consistent, termed "rational." But where economics assumes rationality and the individual, WOLT assumes rationality and society. Economics theorises perfect competition but not perfect cooperation or perfect coercion and thus finds only the Type 1 rationality—and that only as modern "homo economicus." Where economics assumes the maximising of individual self-interest, WOLT assumes the maximising of social propriety. This yields a more complete image of homo economicus and also identifies the other homo types and shows the relationships between them. The very modest falsifiability of economics might improve if homo hierarchicus, homo aequalis, homo fatalis, and perhaps homo solitarius were factored in.

9. Other (non-scientific) classifications

9.1. Thinkers have constructed a couple of dozen intuitive social typologies. They specify two or three types which are in almost all cases WOLT types 1, 2, 3 (Appendix 5).

The only widely recognised classification is political, dividing humanity into right and left. The right consists of 1-ism plus 2-ism and some 4-ism so academic "scales" (Knight 1999) and experiments purporting to measure "right" are incoherent.

9.2. The various personality classifications are less comparable for they include emotion and purely personal concerns. Personality research (which is enormous) investigates real individuals and finds a variety of fuzzy descriptions and no society. WOLT investigates hypothetical social relations and finds clear individuals and recognisable social structures. The WOLT descriptions of individuals could be termed social or ethical personalities.

10. Conclusion

Despite intense effort in psychology, sociology, political science, and anthropology, no social laws have been found. This has persuaded scholars that a science of society is not possible, even that it is not desirable.

However, Way of life theory shows that the standard, centuries-old science process of hypothesising a relationship between measures of idealised concepts and deducing the consequences, can work for social science. Simple deduction from combinations of personal values yields an objective, predictive, falsifiable moral theory.

The connection between the individual and society is social science's greatest puzzle. WOLT solves it: society is composed of up to four equally valid, mutually antagonistic moralities interrelated via three dimensions which contain all social preferences. WOLT is a universal social law and must apply to prehistoric homo species and space aliens as long as they discuss how they should live together.□

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11. References

Albrow, Martin. 1970. Bureaucracy. London: Macmillan.

Critchley, Simon. 2015. "There is no theory of everything." New York Times September 12.

Decety, Jean, Philip L. Jackson, Jessica A. Sommerville, Thierry Chaminade, and Andrew N. Meltzoff. 2004. "The neural bases of cooperation and competition: an fMRI investigation." NeuroImage 23: 744-751.

Douglas, Mary. 1982 [1978]. "Cultural bias." In In the active voice, ed. Mary Douglas. 183-254 London: Routledge and Kegan Paul.

——. 1970. *Natural symbols: explorations in cosmology*. London: Barrie and Rockliff.

Flyvbjerg, Bent. 2005. "Social science that matters." Foresight Europe October 2005: 38-42.

Geertz, C. 1964. "Ideology as a cultural system." In Ideology and discontent, ed. D. E. Apter. New York, Free Press.

Hempel, Carl G. 1965 [1958]. "The theoretician's dilemma: a study in the logic of theory construction." In Aspects of scientific explanation and other essays in the philosophy of science, ed. Carl G Hempel. New York: The Free Press.

Hirschman, Albert O. 1970. Exit, voice, and loyalty: responses to decline in firms, organizations, and states. Cambridge, MA: Harvard University Press.

Kaufmann, Felix. 1944. Methodology of the social sciences. New

York: Oxford University Press.

Kissinger, Henry. 1999. Years of renewal. New York: Simon and Schuster.

Knight, Kathleen. 1999. "Liberalism and conservatism" in *Measures of* political attitudes. Robinson, John P, Phillip R Shaver and Lawrence S Wrightsman, eds. San Diego, Academic Press

Knoke, David. 1990. Political networks: the structural perspective. New York: Cambridge University Press.

Lieberman, MD. 2007. "Social cognitive neuroscience: a review of core processes." Annual Review of Psychology 58: 259-289.

Mach, Ernst. 1906. Erkenntnis und Irrtum.

https://archive.org/details/erkenntnisundirr00machuoft/page/1 92/mode/2up.

Marriott, McKim. 1976. "Hindu transactions: diversity without dualism." In *Transaction and meaning*, ed. Bruce Kapferer. Philadelphia: Institute for the Study of Human Issues.

Matthews, Michael R, 2005 "Idealisation and Galileo's pendulum discoveries: historical, philosophical and pedagogical considerations." in The pendulum: scientific, historical, philosophical and educational perspectives, Michael R Matthews, Colin F Gauld and Arthur Stinner eds. Dordrecht, Netherlands: Springer, 2005)

Merton, Robert K. 1957. "The role set: problems in sociological theory." British Journal of Sociology 8(2): 106-120.

——. 1938. "Social structure and anomie." *American Sociological* Review 3(5): 672-682.

Mills, C Wright. 1963 [1939]. "Language, logic and culture." In Power, politics and people: the collected essays of C. Wright Mills, ed. Irving Louis Horowitz. New York: Oxford University Press.

Ostrom, Elinor. 2006. "The 2005 James Madison Award lecture: converting threats into opportunities." Political Science & Politics 39(1):3-12.

Ouchi, William G. 1980. "Markets, bureaucracies and clans." Administrative Science Quarterly 25(1): 129-141.

Oyserman, Daphna, Heather M Coon, and Markus Kemmelmeier. 2002. "Rethinking individualism and collectivism: evaluation of theoretical assumptions and meta-analyses." *Psychological Bulletin* 128(1):3-72.

Pepperday, Mike. 2009. Way of life theory: the underlying structure of worldviews. relations, and lifestyles. PhD thesis. social https://openresearch-repository.anu.edu.au/handle/1885/49334

Robinson, John P, Phillip R Shaver and Lawrence S Wrightsman. 1999. Measures of political attitudes. San Diego, Academic Press.

Rokeach, Milton. 1973. The nature of human values. New York: Free Press.

Schütz, A. 1963. "Concept and theory formation in the social sciences." In Philosophy of the social sciences, ed. M A Natanson. New York: Random House.

Scruton, Roger. 1983. A dictionary of political thought. London: Pan. Swanson, Guy E. 1969. Rules of descent: studies in the sociology of parentage. Ann Arbor: University of Michigan.

Taylor, Charles. 1971. "Interpretation and the sciences of man." Review of Metaphysics 25(1): 3-51.

Triandis, H.C. 1995. *Individualism and Collectivism*. Boulder Co: Westview.

Wilson, Edward O. 1996 [1989]. "Culture as a biological product." In In search of nature, ed. Edward O Wilson. New York: Penguin.