

Ideology: A Nine-Dimensional Label*

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Assuming that *ideology*, or *political positions*, can be meaningfully partitioned into groups of issues, in this essay I outline a nine-dimensional political label that is (i) much more informative than a one-dimensional left-right divide and (ii) still relatively simple to communicate. I first describe political labels as simplifying devices that reduce dimensionality from the full position space, then introduce the label and, lastly, I discuss how the framework relates to basic questions in politics.¹

I Basics

Suppose there are N issues over which to have positions on. And suppose there can be disagreement in favor or against each issue represented with some metric. For simplicity, define the position space as $P = [0, 1]^N$, where 0 represents full disagreement and 1 represents full agreement.

Definition 1. A *political position* is a point p in the position space P .

Such a political position is obviously abstract. For simplicity I assume that individuals can know what all issues are, can process all information necessary to form opinions, are able to remember it all and express views. In reality this needs not be true.

Definition 2. A *political label* partitions the policy space P and maps it into a space $L = [0, 1]^M$, where $M \leq N$.

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¹Needless to say, this essay does not attempt to make an academic contribution or to extensively review what has been said about ideology, political psychology or representative politics. Good initial references for the curious reader are [Converse \[1964\]](#), [van Dijk \[1998\]](#), [Inglehart and Welzel \[2005\]](#), [Haidt \[2012\]](#), and [Achen and Bartels \[2016\]](#).

A good label structure does a few things. First, it spans the whole policy space, i.e. it maps every dimension of P into one of L . Second, it reduces dimensionality in a way that optimally trades off simplifying description and not distorting information. In other words, it makes communication faster by only requiring positions in a few dimensions instead of N , but it does not make description too imprecise.²

II A Political Label

My suggestion of label L has nine dimensions: six properly political, and three broadly on philosophical views and personal attitudes. Despite (i) some ever-present variation across time and space, (ii) some overlap across dimensions, and (iii) adaptations to the political affairs of the day, I group issues like this because the positions within each dimension tend to cluster together. I describe each dimension sequentially below.

Dimension 1: Customs, Traditions and Culture - Liberal vs. Conservative

This dimension summarizes positions on issues of the value of traditions, family and rituals. It includes positions on abortion, gay marriage, gender identity, the legalization of drugs, nationalism, and immigration policy. It is also commonly associated with traditional religiosity, but not necessarily so.

Dimension 2: Economics - Liberal vs. Interventionist

This dimension summarizes positions on economics broadly: how free or regulated should markets be, the role of government in planning and intervening in the economy, public vs. private provision of education, health and security, privatization, private property, openness to trade and immigration, employment protection and social safety nets, the minimum wage, price control, etc.

Dimension 3: Redistribution - In Favor vs. Against

This dimension summarizes positions on redistribution: how much income redistribution should there be, what is the desired distribution of taxation (e.g. progressiveness, levels vs. percentages), the role of affirmative action policies (e.g. quotas, reparations), universal basic income, land reform, etc.

Dimension 4: Law and Order - Light vs. Heavy

²This dimensionality-reduction problem is exactly analogous to the problem of compression and communication studied in Information Theory [Shannon, 1948]. *Rate-distortion theory* addresses the problem of determining the minimal number of bits per symbol, as measured by the rate R , that should be communicated over a channel, so that the source (input signal) can be approximately reconstructed at the receiver (output signal) without exceeding an expected distortion D . The question, then, is how much distortion D is acceptable in each context.

This dimension deals broadly with how punitive should law enforcement be: the length of legal punishments (e.g. civil, criminal), how aggressive should the police be, the value of due process and the presumption of innocence, gun control, the keeping of national borders, profiling in airports and other places, the recognition of documentation to infra-legal actions (e.g. land squatting, illegal immigration).

Dimension 5: Environment - Protection vs. No Protection

This dimension summarizes positions about how protected should the environment be: what should climate change policy be, how coordinated should international action be, the establishment of carbon pricing systems, views on food consumption (e.g. organic agriculture, factory farming, plant-based diets), the creation and enforcement of protected areas, fines for pollution and deforestation, etc.

Dimension 6: Foreign Policy - Dovish vs. Hawkish

This dimension involves positions on the foreign policy and diplomacy: the value of international coordination, inclinations to war and foreign intervention, positions on current events (e.g. conflict in the Middle East, refugee crises), nuclear weapons, and others.

Philosophical Views - Prevalence of the Individual

This dimension summarizes an array of philosophical views around the concept of free will and the prevalence of the individual. It involves interpreting human affairs as results of individual voluntary choices or as products of all prior causes. It informs how much to value individual responsibility and meritocracy. It involves seeing differences in outcomes as fair versus unfair and attributing disparities to merit versus luck. It also relates to a belief in to what extent one sees people fundamentally as individuals or as members of groups with dimensions of identity.³

Tolerance - Liberal vs. Authoritarian

This dimension summarizes attitudes regarding tolerance towards speech and actions: freedom of speech, of movement, of religion, of the press, of assembly, of petitions, or to bear arms. It differentiates what a person believes and acts "for herself" versus what she accepts others to believe, say and do.⁴

Progress - Emergence vs. Voluntarism

This dimension sums up attitudes towards what progress means and how society

³Identity can be defined as a set of characteristics. It contains immutable traits, such as sex, age or race, and mutable ones, such as religion or economic situation.

⁴For example, one may accept other individuals making their own decisions about abortion, even if the person disagrees with it.

should act to try to approach it. It measures a preference for revolution or evolution in political and social affairs. It describes a given level of skepticism about human ability to steer history, and a risk preference for stability and institutions that evolved slowly over time. It measures a preference for power to be distributed across many actors, such that no small group of individuals can determine aggregate emergent outcomes, as opposed to it being concentrated in the hands of few actors, who can influence social outcomes via political and economic control. Voluntaristic attitudes tend to accompany idealistic beliefs and political activism.

III Politics

Any study of politics is incomplete if it does not take into account who the individuals are, how they prioritize different issues, and how they stand to benefit or lose from their abstract political positions. For example, being in favor of income redistribution means very different things if one is going to receive or pay transfers. And two individuals may agree on a given issue, but one prioritizes it much more in her political activities than the other. In this Section I describe abstract terminology to bring politics back into the analysis.

Definition 3. A person h is a triplet (p, w, x) of political positions $p \in P$, weights $w \in W \equiv [0, 1]^N$ and characteristics $x \in X$.

Weights w express how important each issue in p is to the person. Weights need not sum to one so as to flexibly account for variation in intensity of preferences. For example, a person may strongly care about environmental protection and civil liberties, thus weighing each dimension by one, and ignore other issues, putting weights of zero on them.

The space of characteristics X is multidimensional. Dimensions are economic (e.g. income, wealth, education attainment), demographic (e.g. age, sex, race, religion), political (e.g. power, influence, reputation, activism), geographic (e.g. place of residence, quality of neighborhood), preferences (e.g. risk aversion, tastes for consumption, art, travel), among others.

Given some ordering for each dimension of P , W and X , we can organize the whole population into a joint distribution $F(P, W, X)$.⁵ Each person, thus, stands in some

⁵Some dimensions are more meaningfully ordered than others. For instance, it is natural to rank income levels from less to more. Ordering the demographic distribution of religious affiliation is less natural, but, for the sake of formality, we can line each group into a discrete scale and count each into $F(X)$.

position $F(P = p, W = w, X = x)$ of the distribution. For simplicity I assume marginal distributions exist as $F_P, F_W,$ and F_X .⁶

Therefore, we can define an abstract function $U(h, q)$ mapping any person h and policy vector $q \in P$ to her welfare level.⁷ If we label the current state of policy in a given place as a status quo $\bar{q} \in P$, then any change in policy would cause a change in welfare of $U(h, q) - U(h, \bar{q})$ for person h . Adding this up across all individuals, maybe even those yet-to-be-born, yields the total welfare change for any policy proposal q . This is the object of politics.

The exercise of politics is by individuals and groups trying to acquire power, either democratically or autocratically, to implement a certain policy. Some may be driven by programmatic political positions as described in Section II, while others seek power and economic gains for its own sake.

IV Simplified Representative Politics

With the objects defined above we can outline a simple model of representative politics in the spirit of Downs [1957]. I then use this model to discuss points about elections and polarization.

Let political candidates for office be described by specific points in the positions-weights-characteristics space $(q, w, x) \in P \times W \times X$. Voters vote for candidates that most closely matches their positions, weights, and characteristics. We can then define perfect representation as the distribution $F(P, W, X)$ being exactly mirrored in parliament (or congress).

Perfect representation usually does not happen because of various reasons. First, mechanically, the number of dimensions in P and X is large. For any given number of seats in parliament, there will be specific aspects of society that will not be perfectly represented. Second, a host of political and economic factors influence what types of and in what proportions candidates run for office and get elected. For example, running campaigns are costly and require substantial resources. Moreover, strategies such as clientelism and corruption may distort election outcomes.

Once in office, if representatives vote non-strategically on specific bills according to their preferences, then we expect different majorities to form around each issue.⁸ Rep-

⁶I choose to abstract from technicalities in Probability Theory about continuous versus discrete variables, the existence of a probability density function $f(\cdot)$, and others.

⁷I choose to abstract from any discussion of what welfare is, whether individuals are economically rational, what psychology they hold, etc.

⁸I simplify the discussion and ignore strategic voting, coalition-building, special-interest groups and

representatives who disagree on issues of cultural norms may agree on economic matters. In fact, one may measure polarization in parliament as the extent to which few coalitions align on large numbers of issues.

One effective strategy to de-escalate polarization and tribalism in politics is to form issue-specific coalitions, instead of group-specific. Being able to ignore a disagreement over one issue in order to vote together on another one helps politicians not to get stuck in in- vs. out-group dynamics.

V Conclusion

If, on the one hand, words matter and it is expedient to use language precisely, on the other hand real-life politics is much more complicated. For various reasons, there is often a substantial gap between people's stated beliefs and positions, and how they actually behave. In the pursuit of clear thinking about the former, we should not lose sight of the latter.

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