

Attitudes and ideologies: how do political issues map on an ideological left-right scale?

Extended abstract on political attitude dynamics

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Abstract. Agent based models of opinion dynamics can broadly be divided into dimensional, numerical and non-dimensional approaches. This divide can also be revealed in research on political ideologies. Whereas political science research on ideologies is focussed on a one-dimensional scale of left- and right wing attitudes, non-dimensional approaches in the psychology of attitude formation reveal (more or less consistent) clusters of attitudes about certain objects. Notwithstanding a left-right divide remains persistent across these clusters. However, what kind of specific attitudes are counted as left- or right wing remains to a large degree historically and culturally contingent. By relying on psychological theories of attitude formation a mechanism is identified how attitude clusters map on a one-dimensional ideological scale. This finding demonstrates that the dynamics of political attitudes reveals a co-evolution of culture and cognition. Bodily dynamics on timescales of milliseconds is shaped by historical contingencies evolving on timescales ranging up to centuries.

1 INTRODUCTION

‘EUSSR’ is a slogan of Geert Wilders and right wing populists all over Europe and even the USA. This is a simple ‘catch word’ that has a certain appeal in political communication. It sticks in the memory even if people disagree just because it connects a message about a political agenda with emotional appeal. Given certain cultural background knowledge it is immediately recognizable as a right wing challenge. However, how does it come that the particular political issue is perceived as right wing? Consider for example the year 1980. Conservatives would immediately have blamed such a statement as ridicule of the victims of the Prague spring (and likewise in Hungary 1956 or the GDR in 1953). It could not have been accounted as a right wing statement. If possible at all, presumably in the 1980s it could only have been a radical left-wing thesis of critics of capitalist economy. For instance, still in 2006 the French rejection of a European constitution was dominated by a left wing discourse on the economic constitution of Europe. How does it come that particular political issues map on a one-dimensional ideological scale of left-and right wing ideologies? The example shall demonstrate that concrete items are historically contingent. Nevertheless, at least since the time of the French revolution in which opponents and proponents of the

ancient regime sat on the left or right side of the French assembly political ideology is shaped by a left-right division [1].

2 ABM OF OPINION DYNAMICS

The question of political attitude dynamics is extensively studied by agent-based models of opinion dynamics, one of the success stories in agent-based modeling. In broad terms the modeling approaches can be differentiated in dimensional and non-dimensional approaches to political ideologies [2]. Paradigmatic examples of dimensional models are represented by [3] or [4]. These models solve a puzzle of the psychology of attitude dynamics already highlighted by Abelson in the 1960s [5]. Robust findings of mathematical models of the psychology of persuasion indicate that in the long run communication should reach at consensus. How does it come that factually political communication might even foster polarization of convictions as it can be observed for instance currently in the Western World? Dimensional models of opinion dynamics provide an answer: If one assumes a ‘bound of confidence’, in which differing opinions are taken into account whereas outside the bound of confidence opposing convictions are not even considered the emergence of polarized opinion clusters can be generated. This is similar to social judgment theories [6, 7] which postulate latitudes of acceptance and rejection. However, dimensional opinion dynamics models have been seriously been criticized [8] as not being empirically verified. For instance, the question why a particular issue such as EU opposition became an ingredient of a right-wing ideology cannot even be posed within this framework. Non-dimensional accounts apply a more empirically oriented approach to attitude formation. Edmonds (unpublished presentation at CHIAS IV) developed an agent-based model of attitude formation and change based on minimizing cognitive dissonance [9]. This model provides a framework for integrating substantial issues of political debate in agent based models of opinion change as for instance the dynamics of attitudes towards the Brexit referendum. Agents adopt attitudes towards certain topics in order to increase the coherence of their belief system. In a similar vein, [2] developed the methodology of cognitive affective mapping for empirically investigating ideological world views. As an example they provide a map of statements typically positively and negatively valued by US tea party supporters. In the common sense Brexit (at least proponents such as Nigel Farage) as well tea party supporters are mostly perceived as right wingers on the ideological continuum. However, non-dimensional methodological approaches do not

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per se lay open a one-dimensional continuum of left- and right wing ideologies.

3 PSYCHOLOGY OF THE EMERGENCE OF ATTITUDE CLUSTERS

By what mechanisms do substantial topics become arranged in a left-right scale? Research revealed much empirical evidence what psychological features foster liberalism or conservative attitudes [e.g. 1, 10-12] such as basic human needs for cognitive closure or openness [11]. However, the more basic question of why and how attitudes become perceived as liberal or conservative is less in the focus of political science. In the following some considerations shall be provided. Cognitive psychology of the 1980s and 90s developed theories of why persons adopt certain attitudes from the perspective of cognitive processes (for a critical review of the brain-as-computer metaphor which can also be revealed in these approaches see [13]). In particular, the elaboration-likelihood model [14, 15] postulates a dual process of reasoning: a central and a peripheral route. Individuals need to be both motivated and able to invest cognitive resources for an elaborate reasoning about messages. For instance in cases which are of personal relevance people may have both the experience to evaluate a message and the motivation to carefully consider an argument. If a peripheral route is taken, a more heuristic reasoning is activated [16] in which other factors than the argument quality become relevant. This approach might be insightful for comprehending political communication. Factual political processes and decisions are to a large degree far away from everyday experience and mostly not of direct personal relevance. While political decisions may strongly influence individual life (one may think of war), the effects are often indirect and cannot immediately be traced back to these decisions. Thus it is likely that a peripheral route is taken in processing political information. Therefore it is a rational strategy of political communication to reduce complex tasks and issues in simple and catchy messages. Slogans such as 'EUSSR' are easy to memorize even – and in particular – if not processed in the central route of reasoning. It is thus likely that agenda setting [17] in political communication is more successful if appealing to peripheral modes of information processing. The elaboration-likelihood model provides a framework for explaining the emergence of subjectively perceived consistent cluster of attitudes [18] as they can be identified by non-dimensional models of opinion dynamics such as cognitive affective mapping. The fluidity of the ideological classification can be explained by the peripheral route of information processing: if a certain issue is perceived as a left- or right wing agenda is determined less by the argument quality but by heuristic cues. For instance it cannot a priori be deduced whether and what kind of attitudes about European integration count as left – or right wing attitudes. This can be revealed by non-dimensional accounts of attitude to attitude formation such as recent research indicating that Toyota Prius is a left wing car [23]. Thus even a mobility device may become a political statement.

4 EMERGENCE OF AN IDEOLOGICAL SCALE

For investigating why these clusters at least often are arranged on a one-dimensional scale of left and right wing political opinions it might be useful to refer back to the more general theory of attitudes in psychology going back to [19] and [20]. [21] describes attitudes as object-evaluation associations. For instance, chocolate or Scotch whisky may be associated with delight whereas kissing a frog might be associated with disgust. [22]. Likewise political convictions are not simply beliefs about the factual state of the world. Being a left-or right winger is also an expression of values. If it is taken into account that attitudes are object-evaluation associations it follows that either positive or negative affect is stimulated. Thus attitudes become arranged on a continuous one-dimensional scale, namely either positive or negative. It has to be noted that this is not exactly the scale postulated by dimensional models of opinion dynamics as the scale from positive to negative implies a meaningful midpoint (i.e. neutral stimuli) which is not inherent in these models. However, at least a reduction of complexity to a one-dimensional scale takes place.

The question remains how the one-dimensional scale takes the shape of a left - right distinction in the domain of politics. For answering the question it might be useful to keep in mind that in democratic societies constituents are requested to make a decision. In consequence political attitudes take the shape of being in favour or opposition of one or another political party. Moreover a number of Western democracies are characterized by a two party system or at least dominated by two main parties. This refers back to ancient regime in which pro and con were seated on the left or right side of the French assembly: Being in favor of one party implies refusal of the other. From this perspective the one dimensional scale of left right can be traced back to the attitudinal scale of positive or negative affect. This explains that despite the flexibility of ideologies in questions of concrete issues at the same time a one dimensional scale of political ideologies as left – or right wing ideologies remains persistent. In this context it has to be taken into account that research on political ideologies is mostly undertaken in Western Democracies. In authoritarian regimes the left-right wing scale is less investigated [10]. Likewise the (rare) empirical evidence seems to indicate that the divide becomes more blurred [10]. This indicates that in an authoritarian context political attitudes are forced back to the pro-con decision as in the ancient regime.

5 CONCLUSIONS

In more abstract terms the example of integrating the two approaches in agent-based modeling of political attitude dynamics shows the need for an integrated socio-cognitive science and the power of emergence. Internal bodily mechanisms (such as Hebbian learning, which describes the amplifying of connections in neuronal nets [24]) are triggered by political communication. Political communication and the persuasiveness of political slogans in turn which builds upon contingent frames which might invoke decades or centuries of cultural historical legacy [24]. Thus political attitude dynamics is a co-evolution of culture and cognition operating on a multitude of timescales ranging from milliseconds to centuries [25].

REFERENCES

- [1] J. Jost, C. Federico and J. Napier J. Political Ideology: Its Structure, Functions, and Elective Affinities. *Annual review of psychology* 60: 307-337 (2009).
- [2] T. Homer-Dixon, J. Maynard, M. Mildenerberger, M. Milkoreita, S. Mocka, S. Quilleyd, T. Schröder, and P. Thagard. A Complex Systems Approach to the Study of Ideology: Cognitive-Affective Structures and the Dynamics of Belief Systems. *Journal of social and political psychology* 1(1): 337–363 (2013).
- [3] G. Deffuant, D. Neau, F. Amblard, and G. Weisbuch. Mixing beliefs among interacting agents. *Advances in Complex Systems* 3(1) DOI: <http://dx.doi.org/10.1142/S0219525900000078F> (2000).
- [4] R. Hegselmann, and U. Krause. Opinion dynamics and bounded confidence models, analysis and simulation. *Journal of artificial societies and social simulation* 5(3) (2002).
- [5] R. Abelson. Mathematical models of the distribution of attitudes under controversy. In N. Frederiksen and H. Gulliksen (Eds.). *Contributions to Mathematical Psychology*. New York: Holt, Rinehart, and Winston, pp. 141-160 (1964).
- [6] C. Hovland, and M. Sherif. Judgmental phenomena and scales of attitude measurement: Item displacement in Thurstone scales. *Journal of abnormal and social psychology* 47: 822-832 (1952).
- [7] C. Sherif, M. Sherif, and R. Nebergall. *Attitudes and attitude change: The social judgment-involvement approach*. Philadelphia: Saunders (1965).
- [8] E. Chattoe. Using Agent Based Modelling to Integrate Data on Attitude Change. *Sociological research online* 19(1) (2014).
- [9] L. Festinger. *A theory of cognitive dissonance*. Evanston: Row Peterson (1957).
- [10] P. Tetlock. Structure and function in political belief systems. In A. Pratkanis, S. Breckler, and A. Greenwald (eds.). *Attitude structure and function*. Hillsdale: Lawrence Erlbaum associates, pp. 129-151 (1989).
- [11] J. Jost, J. Glaser, A. Kruglanski, and F. Sulloway. Political conservatism as motivated social cognition. *Psychological Bulletin* 129: 339–375 (2003).
- [12] L. Castelli, and L. Carraro. Ideology is related to basic cognitive processes involved in attitude formation. *Journal of experimental psychology* 47: 1013-1016 (2011).
- [13] M. Neumann, and S. Cowley. Modelling social agency using diachronic cognition: learning from the Mafia. In: D. Secchi, M. Neumann (Eds.). *Agent-based simulation of organizational behavior. New frontiers of social science research*. New York: Springer, pp. 289-310 (2015).
- [14] R. Petty, and J. Cacioppo. Issue involvement as a moderator of the effects on attitude of advertising content and context. *Advances in consumer research* 8: 20-24 (1981).
- [15] R. Petty, and J. Cacioppo. The elaboration likelihood model of persuasion. In L. Berkowitz (ed.). *Advances in experimental social psychology*. San Diego: Academic press, pp. 123-205 (1986).
- [16] S. Chaiken. Heuristic versus systematic information processing and the use of source versus message cues in persuasion. *Journal of personality and social psychology* 39: 752 – 766 (1980).
- [17] H. Bonfadelli, and M. Marr. Kognitive Medienwirkungen. In B. Batinic, and M. Appel (eds.). *Medienpsychologie*. Heidelberg: Springer, pp. 127–147 (2008).
- [18] C. Judd, and J. Krosnick. The structural bases of consistency among political attitudes: Effect of political expertise and attitude importance. In A. Pratkanis, S. Breckler, and A. Greenwald (eds.). *Attitude structure and function*. Hillsdale: Lawrence Erlbaum associates, pp. 99-128 (1989).
- [19] L. Thurstone. Attitudes can be measured. *American Journal of Sociology* 33: 529–554 (1928).
- [20] G. Allport. Attitudes. In: C. Murchison (ed.). *Handbook of social psychology*. Worcester, Mass.: Clark University Press, pp. 798–844 (1935).
- [21] R. Fazio. Attitudes as object-evaluation associations: Determinants, consequences, and correlates of attitude accessibility. In R. Petty, and J. Krosnick (eds.). *Attitude strength. Antecedents and consequences*. Mahawh: Lawrence Erlbaum associates, pp. 247-282 (1995).
- [22] R. Fazio. Attitudes as object-evaluation associations of varying strength. *Social Cognition* 25(5): 603-637 (2007).
- [23] D. DellaPosta, Y. Shi, and M. Macy. Why do liberals drink lattes? *American journal of sociology* 120(5): 1473–1511 (2015).
- [24] E. Wehling. *Politisches framing: wie eine Nation sich ihr Denken einredet – und daraus Politik macht*. Köln: Halem (2015).
- [25] J. Madsen, and S. Cowley. Forward: Cognition, language and the scales of time. *Cybernetics and human knowing* 21(1/2): 5-10 (2014).