Pouring a Little Psychological Cold Water on Online Dispute Resolution

Jean R. Sternlight[*]

"Eventually ODR may be the way we resolve most of the problems in our lives, with algorithmic approaches even more trusted than human powered resolutions."[1]

I. INTRODUCTION

I recently was privileged to be "the bad guy" in a panel discussion entitled "Promises and Pitfalls of Technology in Dispute Resolution."[2] The other panelists[3] were there to talk about the "promises" of Online Dispute Resolution ("ODR"). While their perspectives differed, my co–panelists suggested that ODR can potentially make dispute resolution quicker, cheaper, and perhaps even more fair and just.[4] It is often said that ODR can enhance access to justice[5] and that it can be particularly useful to disputants who lack legal representation.[6] My role as a

1. Ethan Katsh & Colin Rule, *What We Know and Need to Know About Online Dispute Resolution*, 67 S.C. L. REV. 329, 343 (2016) (stating that, whereas ADR places value on resolving disputes face–to–face, ODR processes rely on the intelligence and capabilities of machines and predict that most dispute resolution processes will move online).

2. We presented at a session at the annual meeting of the Association of American Law Schools in New Orleans in January 2019. *See generally* THE ASS'N OF AM. LAW SCHOOLS, https://www.aals.org/.

3. In New Orleans, I was accompanied by Alyson Carrel, Ethan Katsh, David Larson, Amy Schmitz, Colin Rule (by video), and Janet Martinez.

4. The published version of my co–panelists' remarks appear as follows: Alyson Carrel & Noam Ebner, *Mind the Gap: Bringing Technology to the Mediation Table*, 2019 J. DISP. RESOL. 1 (2019); David Allen Larson, *Designing and Implementing a State Court ODR System: From Disappointment to Celebration*, 2019 J. DISP. RESOL. 77 (2019); Orna Rabinovich–Einy & Ethan Katsh, *Blockchain and the Inevitability of Disputes: The Role for Online Dispute Resolution*, 2019 J. DISP. RESOL. 47 (2019); Amy J. Schmitz & Colin Rule, *Online Dispute Resolution for Smart Contracts*, J. DISP. RESOL. 103 (2019); Janet Martinez, *Designing Online Dispute Resolution*, 2020 J. DISP. RESOL. 198.

5. Robert J. Condlin, *Online Dispute Resolution: Stinky, Repugnant, or Drab*, 18 CARDOZO J. CONFLICT RESOL. 717, 718–19 (2017) (stating that while ODR is frequently lauded for its ability to increase "access to justice," few commentators actually explain what they mean by this phrase or address whether merely providing "access" to disputants who might not be able to afford a more traditional process is sufficient to provide "justice" to those disputants).

6. Larson, *supra* note 4, at 92 (proposing a model in which ODR could be used in debt collection cases both to provide information to often unrepresented consumers and to facilitate negotiation and mediation between consumers and debt collection entities in those cases). Indeed, as Robert Condlin observes, some believe one of the benefits of ODR is that it can eliminate the need for attorneys. *See* Condlin, *supra* note 5, at 720 n. 12 ("[M]any ODR programs are designed to remove lawyers from the dispute resolution process in the hope that disputing will be less frequent and less adversarial if that is done.").

panelist was to draw on psychology to take a more skeptical approach.[7] In the end, however, I do not think we should necessarily be making a binary choice between ODR and other processes but, rather, determining how and when we can best weave technology into various processes to resolve disputes most effectively and justly.

I agree ODR can sometimes be helpful.[8] I am going to take a very big jump and temporarily set aside my concerns that the public entities and private companies that might establish ODR programs may have goals other than serving justice.[9] Nevertheless, the idea expressed in the introductory quote—that we might trust computers more than humans to resolve most of our problems—raises some important concerns I would like to address.[10]

The hesitations I want to raise about ODR stem from the fact that human disputes are intimately connected to human psychology.[11] Whereas others have

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7. I confess to being something of a dispute resolution cynic. I believe Marc Galanter was right when he opined almost fifty years ago that the wealthy and powerful will tend to take advantage of the poor and weak in most dispute resolution systems. *See* Marc Galanter, *Why the "Haves" Come Out Ahead: Speculations on the Limits of Legal Change*, 9 L. & SOC'Y REV. 125 (1974); *see also* Carrie Menkel–Meadow, *Are There Systemic Ethics Issues in Dispute System Design? And What We Should [Not] Do About It: Lessons from International and Domestic Fronts*, 14 HARV. NEGOT. L. REV. 195, 204 (2009) (observing that dispute system design is not a "neutral" activity in that the designers ultimately report to those who are requesting the design).

8. My co–panelists and others have discussed some of the potential benefits of ODR in prior work as well. *See, e.g.*, AMY J. SCHMITZ & COLIN RULE, THE NEW HANDSHAKE: ONLINE DISPUTE RESOLUTION AND THE FUTURE OF CONSUMER PROTECTION 89–94 (2018) (discussing eight design factors necessary to create an effective ODR system, including the need to provide customers "fast and easy resolutions" in addition to providing "mutual respect, with no attempt to confuse or mislead the other side"); ETHAN KATSH & ORNA RABINOVICH–EINY, DIGITAL JUSTICE: TECHNOLOGY AND THE INTERNET OF DISPUTES 13 (2017) (discussing that as technology becomes a bigger aspect of our daily lives, we will increasingly use it to facilitate discussions and resolve disputes); Ayelet Sela, *The Effect of Online Technologies on Dispute Resolution System Design: Antecedents, Current Trends and Future Directions*, 21 LEWIS & CLARK L. REV. 633 (2017) (proposing a typological framework for evaluating ODR systems); Katsh & Rule, *supra* note 1, at 330 (arguing that technology will be able to assist society in resolving disagreements in ways in which we have typically been unable); Larson, *supra* note 4, at 93 (mentioning that, among other things, ODR can offer neutrality to conflict resolution, which is oftentimes difficult to fully achieve).

9. At the risk of shocking the naïve, I observe that private and even public entities that establish ODR processes may choose to emphasize goals other than justice. Private companies might, for example, choose to impose a process that protects them from claims. *See, e.g.*, Jean R. Sternlight, *Disarming Employees: How American Employers are Using Mandatory Arbitration to Deprive Workers of Legal Protection*, 80 BROOK. L. REV. 1309 (2015); Jean R. Sternlight, *Mandatory Binding Arbitration Clauses Prevent Consumers From Presenting Procedurally Difficult Claims*, 42 SW. L. REV. 87, 89 (2012). On the public side, it is easy to imagine that some lawmakers or courts might emphasize docket clearing over "real" justice, however that might be defined. *See, e.g.*, Carrel & Ebner, *supra* note 4, at 24 (expressing fear that court administrators may prefer a process that is "faster, cheaper, and off your docket" even if that process does not offer the "best" dispute resolution in terms of other recognized criteria). *See also* Menkel–Meadow, supra note 7, at 204.

10. It is important to note, however, that I highly respect and like the co–authors of this quote.

11. As is so often the case, I find myself thinking along similar lines as Professor Carrie Menkel–Meadow. She suggests that while online dispute resolution may work well for small, simple disputes in which forms can quickly be filled in and documents uploaded, these processes may be less effective for those disputes requiring "room to brainstorm and create a different solution, give an apology, come to understand someone else's perspective and improve, rather than just 'resolve' relations and disputes." Carrie Menkel–Meadow, *Is ODR ADR? Reflections of an ADR Founder from 15th ODR Conference, The Hague, The Netherlands*, *22–23 May 2016*, 3 INT'L. J. ONLINE DISP. RESOL. 4, 7 (2016).

critiqued ODR from policy[12] or ethical[13] perspectives, and while even staunch ODR advocates have recognized that ODR is not necessarily ideal for every problem,[14] I believe it is critically important to use a psychological lens to evaluate all approaches to human dispute resolution.[15] Our human brains often function quite differently than computers (and not just because brains work more slowly).[16] For example, when events happen, we may fail to perceive them entirely, perceive them inaccurately, and/or remember them incorrectly. Moreover, our responses to events are unpredictable, and we may not know what we want, at least in any meaningful sense. Even when we *do* know what we want, we are not necessarily very good at communicating with each other or making the judgments and decisions that might best help us actually get what we want. If any system of dispute resolution is to succeed, it must take into account this human psychology.[17]

The insight that human psychology is critical to dispute resolution leads to four important conclusions. First, given that human psychology is at the core of many civil disputes,[18] to the extent we rely on ODR we need to design ODR hardware and software to take account of human psychology. Second, it may well be that humans are better suited than computers to help us resolve many disputes. Third, we must

12. Condlin, *supra* note 5, at 737.

13. Scott J. Shackelford & Anjanette H. Raymond, *Building the Virtual Courthouse: Ethical Considerations for Design Implementation, and Regulation in the World of ODR*, 2014 WIS. L. REV. 615, 617 (2014).

14*. See, e.g.*, KATSH & RABINOVICH–EINY, *supra* note 8, at 180 (expressing great optimism about the potential of "digital justice" but also recognizing that "[t]o be effective, digital justice will require extensive monitoring of the impact of design choices on both efficiency and fairness."); SCHMITZ & RULE, *supra* note 8, at 138 (recognizing that enthusiasm for online dispute resolution should not overshadow focus on justice and ethics.); Carrel & Ebner, *supra* note 4, at 42 (mentioning that while technology has a multitude of benefits, there are impacts "of private settlement on weak, marginalized, and economically disadvantaged populations.").

15. I certainly do not pretend to be the first person to point out that psychology is relevant to dispute system design. Major software designers such as Amazon, Google, Facebook, and EBay are already employing lots of psychologists, some of whom, no doubt, focus on dispute resolution. However, I hope that this Article will offer a helpful framework and reminder as we further explore the potential of ODR.

16*. See infra* TAN 145 (discussing work of Daniel Kahneman) While some may be tempted to say that human brains suffer from various "biases" or "flaws" and thus are deficient compared to computers, I believe the analysis is far more complex. In short, I don't think that computers' functioning is necessarily superior as the words "bias" or "flaw" imply but, rather, just different. After all, our human information processing has served us very well for millennia. There can be advantages, for example, to not remembering every insult one has received, or to being overly optimistic about the future. *See* David Robson, *The Blessing and Curse of Those Who Never Forget*, BBC: FUTURE (Jan. 26, 2016), http://www.bbc.com/future/story/20160125-the-blessing-and-curse-of-the-people-who-never-forget (stating that people with highly superior autobiographical memory ("HSAM") can have difficulty getting over pain and regret: "It can be very hard to forget embarrassing moments. You can't turn that stream of memories off, no matter how hard you try."); Lesley Stahl, *The Gift of Endless Memory*, CBS: 60 MINUTES (Dec. 16, 2010), https://www.cbsnews.com/news/the-gift-of-endless-memory/ (stating that people with HSAM describe it as "isolating" and are "haunted by a never–ending stream of memory").

17. I am not trying to discuss every aspect of human psychology that is important to dispute resolution but, rather, to highlight a few of the most important areas.

18. Some have also thought to use ODR for criminal matters, such as traffic disputes or outstanding warrants, but that raises a host of policy and Constitutional issues that are beyond the scope of this Article. *See, e.g.*, Colin Rule, *How ODR Can Benefit Three Criminal Case Types*, (June 12, 2019) https://www.tylertech.com/resources/blog-articles/how-odr-can-benefit-three-criminal-case-types (discussing the potential of using ODR for moving vehicle violations, victim-offender resolution, and plea bargaining); JOINT TECH. COMM., CASE STUDIES IN ODR FOR COURTS: A VIEW FROM THE FRONT LINES (Nov. 2017), https://www.ncsc.org/~/media/Files/PDF/About%20Us/Committees/JTC/JTC %20Resource%20Bulletins/2017-12-18%20ODR%20case%20studies%20revised.ashx (discussing Michigan's experience using ODR for outstanding warrants and in civil traffic court).

be imaginative in deciding whether and how to incorporate technology into dispute resolution. The psychological approach will help us see that the choice of a dispute resolution approach should not be based merely on the dollar value at stake, the complexity of disputes, nor whether disputants have attorneys, but on how disputants are likely viewing and communicating about their issues. We need to think like clients. At the same time, we must be open to the possibility that now or in the future, computers, robots, and artificial intelligence may help us deal with our human psychology. Fourth, we must address these issues empirically. Rather than making assumptions about how best to handle psychological issues, we should test and evaluate both online and in–person approaches to dispute resolution. We each may have our gut feelings about what will work best, and these feelings may be informed by personal experiences, but it is imperative that we test our instincts using empirical tools.[19]

I do not see a psychological approach as inconsistent with a technological approach but, rather, believe the two must be integrated. If technology is going to help resolve human disputes, it must be tailored to human psychology. Thus, as we become more reliant on technology, it will be increasingly important for those involved with dispute resolution to bolster their ability to deal with the human psyche.[20] In light of our growing reliance on technology, I believe we need to enhance the human side of law school curriculum,[21] just as artificial intelligence experts have emphasized the need to increasingly value people–skills as we develop our technical expertise in other realms.[22]

In the remainder of this Article I will focus on four important psychological aspects of disputes and consider the likely implications of this psychology for ODR. After a discussion of the limitations of the term "Online Dispute Resolution" in Section II, Section III(A) examines the psychology of perception and memory;

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19. *See generally* ROBERT M. LAWLESS, JENNIFER K. ROBBENNOLT, & THOMAS S. ULEN, EMPIRICAL METHODS IN LAW (2d ed. 2016) (discussing importance of empirical analysis from various methodological traditions and providing guidance on how to conduct and understand empirical work).

20. *See, e.g.*, Alyson Carrel, *Legal Intelligence Through Artificial Intelligence Requires Emotional Intelligence: A New Competency Model for the 21st Century Legal Professional*, 36 GA. ST. U. L. REV. 1153, 1155 (2019); Milan Markovic, *Rise of the Robot Lawyers?*, 61 ARIZ. L. REV. 325, 346 (2019) (contending that because lawyers are highly educated professionals whose work involves problem–solving, intuition, creation, persuasion, and communication, their work cannot all be easily automated); Melissa Love Koenig, Julie A. Oseid, & Amy Vorenberg, *Ok, Google, Will Artificial Intelligence Replace Human Lawyering?*, 102 MARQ. L. REV. 1269 (2019).

21. Carrel, *supra* note 20, at 1154 (advocating that attorneys should be trained using a "Delta Model" that "recognizes the need for lawyers to have deep legal knowledge and skills as well as an understanding of data and technology, but also the need for emotional intelligence in decision–making and problem–solving.").

22. *See, e.g.*, THOMAS W. MALONE, SUPERMINDS: THE SURPRISING POWER OF PEOPLE AND COMPUTERS THINKING TOGETHER 15 (2018) (Malone, the founding director of the MIT Center for Collective Intelligence, argues that because humans have interpersonal and communication skills that computers do not, it will be more effective to design systems where machines and humans work together rather than to endeavor to replace humans with machines); *see also* The Berkman Klein Center for Internet & Society, BARBARA GROSZ: DESIGNING AI TO COMPLEMENT HUMANITY, YOUTUBE (Jan. 10, 2017), https://www.youtube.com/watch?v=a7HCRFK3cHI (interviewing with Berkeley Klein Center for Internet & Society); UCI Dep't of Computer Science Seminar, From the Turing Test to Smart Partners- Barbara Grosz, Harvard University, YOUTUBE (May 19, 2017), https://www.youtube.com/watch?v=pEfilSxMK-k (lecturing at UC Irvine); *see also* PAUL R. DAUGHERTY & H. JAMES WILSON, HUMAN + MACHINE: REIMAGINING WORK IN THE AGE OF AI 80 (2018) (finding that firms achieved the greatest performance improvements when humans and machines worked together).

Section III(B) considers the psychology of human wants; Section III(C) looks at the psychology of communication; and Section III(D) discusses judgment and decision–making. While it would be possible to consider other aspects of human psychology as well, looking at these four examples will help us begin to consider why human psychology is so important to an analysis of ODR. Then, in Section IV, I show how all these aspects of psychology can come together in a family dispute.

II. PROBLEMS WITH THE TERM "ODR"

Before getting into the details of my psychology–based argument I believe it is important to discuss the problems I see with the term "ODR" itself. My concern is not that the acronym calls to mind the term "odor," as some have suggested.[23] Really, I have a problem with *any* term that would join together all technologically–assisted forms of dispute resolution. About twenty years ago, I wrote an article arguing that the term "ADR" was not particularly useful.[24] I asserted that because various types of ADR (i.e., arbitration, mediation, and negotiation) are so different from one another, and because arbitration has a lot more in common with litigation than it does with mediation or negotiation, I could not see much benefit in lumping all those non–litigation processes together into a single category.[25] The same can be said about the diversity in format and application of the many technologically–assisted dispute resolution processes employed today—the term "ODR" is simply too broad to be useful.[26]

I have heard Colin Rule, whom I greatly respect, define ODR as "technologically assisted dispute resolution."[27] But under this definition, does ODR not swallow up absolutely every form of dispute resolution?[28] It potentially includes virtually all arbitration, negotiation, mediation, and also litigation. After all, when disputants or their attorneys use telephones or emails or texts or microphones or maybe even mechanical pencils in connection with negotiation, mediation, litigation, or arbitration, are they not using "ODR" if, as that definition suggests, the only requirement is that the resolution be "technologically assisted"??

Even if one defines ODR in a much more limited way, to perhaps mean resolving disputes with the help of computers or the internet, the term is still

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23. Indeed, I had never thought about this until my co–panelist Ethan Katsh, rightly called the "father of the field," pointed it out in his response to some of my comments in New Orleans. A better punster than I, however, has noted the "odor" issue. *See* Condlin, *supra* note 5, at 717.

24. Jean R. Sternlight, *Is Binding Arbitration a Form of ADR?: An Argument That the Term "ADR" Has Begun to Outlive its Usefulness*, 2000 J. DISP. RESOL. 97 (2000).

25. *Id.* at 104–06, 110.

26. My co–panelists Alyson Carrel and Noam Ebner make a similar point in a different way when they observe that it is far different to use technology to assist in–person mediation than it is to use technology in place of in–person mediation. *See* Carrel & Ebner, *supra* note 4; *see also* AM. BAR ASS'N TASK FORCE ON ELEC. COMMERCE & ALT. DISPUTE RESOLUTION, ADDRESSING DISPUTES IN ELEC. COMMERCE 15 (2002) (observing that the term ODR "may convey different things to different people.").

27. *See, e.g.*, Colin Rule, *Is ODR ADR?*, 3 INT'L. J. ONLINE DISP. RESOL. 8, 8 (2016) (arguing that ODR includes use of e–mail, teleconferences, calendar invitations, and videoconferencing, and defining ODR as "the use of information and communications technologies to help parties resolve their disputes.").

28. *See* Carrel & Ebner, *supra* note 4, at 7 (observing that "practitioners and academics alike are quick to conflate *anything to do with technology in mediation* with ODR" and then either regard it all enthusiastically or condemn it all harshly) (emphasis in original).

extremely broad.[29] In particular, it covers both using computers as adjudicators and also to aid in the negotiation or mediation of disputes.[30] As an "adjudicator," computers can potentially take the role that a judge, arbitrator, boss, or parent may fill and produce a decision that will resolve a dispute.[31] That is, disputants can file complaints and respond to those complaints online, and a computer can be programmed to make a decision. Alternatively, as a negotiation or mediation aid, computers can help disputants exchange or acquire perspectives or information that might help them resolve their conflicts.[32] Again, claims can be filed online, but here the computer can offer prompts to claimants or respondents to help them connect with one another or gain insights into their situation. In this context, some find it useful to call technology a "fourth party" that can either assist or, perhaps, take the place of a third party neutral, but the breadth of this phrase also illustrates the definitional problem at issue.[33]

ODR also covers the use of computers or other sophisticated technology in a broad range of subject areas. For example, our panel at the conference discussed the resolution of consumer disputes using written exchanges aided by computer modules,[34] the use of court–connected ODR to handle credit card debt claims,[35] the use of blind bidding tools or algorithms to resolve personal injury or other disputes,[36] "smart contracts"[37] devised to resolve certain disputes without

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29. Professor Condlin has written a detailed description of some of the many forms of ODR. Condlin, *supra* note 5, at 724–33.

30. Of course, computers do not literally do anything on their own; they are directed by the humans who design the technology and software—we hope so, at least. *See, e.g.*, John Markoff, *Scientists Worry Machines May Outsmart Man*, N.Y. TIMES (July 25, 2009), https://www.nytimes.com/2009/07/26/science/26robot.html. Many movies have explored the possibility that artificial intelligence might come to control or harm humans. *See, e.g.*, TERMINATOR GENISYS (Paramount Pictures 2015) (examining fallout from when Skynet, a computer program designed to automate missile defense, destroyed most of human world); 2001: A SPACE ODYSSEY (Metro-Goldwyn-Mayer 1968) (recounting problems that occur when rocket computer HAL ceases to accept human direction).

31. Katsh & Rule, *supra* note 1, at 330–31 (discussing that computers cannot only assist in the process of dispute resolution itself, but also make it possible to glean data on disputing patterns and behaviors more effectively than a human could); Larson, *supra* note 4, at 80 (discussing the online technology Ohio uses to resolve taxpayer disputes); *see also* David Allen Larson, *Artificial Intelligence: Robots, Avatars and the Demise of the Human Mediator*, 25 OHIO ST. J. ON DISP. RESOL. 105, 105 (2010) (discussing that artificial intelligence can now practically assume all the responsibilities that ADR practitioners currently perform); Chris Johnston, *Artificial Intelligence 'Judge' Developed by UCL Computer Scientists*, THE GUARDIAN (Oct. 23, 2016), https://www.theguardian.com/technology/2016/oct/24/artificial-intelligence-judge-university-college-london-computer-scientists.

32. Carrel & Ebner, *supra* note 4, at 26 (describing the role of the "fourth party" computer); *see also* Horacio Falcão, *Can Computers Negotiate? Win–Win Negotiations in a Virtual World*, FORBES (Nov. 19, 2013), https://www.forbes.com/sites/insead/2013/11/19/can-computers-negotiate-win-win-negotiations-in-a-virtual-world/#1eb67fac1d15.

33*. See, e.g.*, Katsh & Rule, *supra* note 1, at 331 (citing ETHAN KATSH & JANET RIVKIN, ONLINE DISPUTE RESOLUTION: RESOLVING CONFLICTS IN CYBERSPACE 93 (John Wiley ed., 2001)).

34. My co–panelists have played key roles in furthering the use of technology with on–line sellers such as E–Bay and with courts. *See, e.g.*, Schmitz & Rule, *supra* note 4, at 117; Larson, *supra* note 4, at 77.

35. Larson, *supra* note 4.

36*. See* KATSH & RABINOVICH–EINY, *supra* note 8, at 35–36, 48 (describing two of these blind bidding processes called Cybersettle and Smartsettle and Amazon's algorithm for deciding whether to immediately credit consumers who complain about unreceived or defective items); *see also* SMARTSETTLE BEYOND WIN–WIN, https://smartsettle.com/ (last visited Nov. 8, 2019); *see generally* KATSH & RIVKIN, *supra* note 33 (describing some of the earliest online attempts).

37. Rabinovich–Einy & Katsh, *supra* note 4, at 51; Schmitz & Rule, *supra* note 4, at 103.

immediate human intervention, and the use of online chat rooms or similar approaches to facilitate real time mediations between persons who may be located far away from one another.[38] ODR includes the use of technology to resolve disputes that arose through online commerce[39] or other interactions, but can also cover the use of technology to resolve disputes that arose off–line, involving families, business deals, civil rights, debt collection, or any other matters.[40] Courts,[41] private mediators, and private arbitrators are increasingly using online approaches to handle arguments in court,[42] mediations,[43] and arbitrations.[44] For example, the British Columbia Civil Resolution Tribunal ("CRT"), Canada's first online tribunal, resolves a range of issues, including small claims, condominium

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38. Carrel & Ebner, *supra* note 4, at 26–34. Carrell & Ebner concur with my point that it is unwise to conflate all uses of technology in the dispute resolution context with ODR. They urge that we spend more time thinking about how technology can be used to assist traditional mediation rather than focus most of our technological energy on moving disputes entirely on–line. *Id.* at 7.

39. Stephen Ware, *Domain–Name Arbitration in the Arbitration–Law Context: Consent to, and Fairness In, the UDRP*, 6 J. SMALL & EMERGING BUS. 145, 160 (2002) (discussing ICANN arbitration); Katsh & Rule, *supra* note 1, at 333–34, 337–38 (discussing both eBay's use of online dispute resolution and "online property tax assessment appeals"); Rachel Erani, *Amazon, Arbitration, and Customer Vindication*, J. HIGH TECH. L. BLOG (Nov. 14, 2018), https://sites.suffolk.edu/jhtl/2018/11/14/amazon-arbitration-and-customer-vindication/ (providing an overview of Amazon's online dispute resolution processes).

40. KATSH & RABINOVICH–EINY, *supra* note 8, at 13; Larson, *supra* note 4, at 92 (discussing the design of an ODR system to help New York courts resolve credit card debt claims). For a good discussion of ODR uses throughout the world, *see generally* Anjanette H. Raymond & Scott J. Shackelford, *Technology, Ethics and Access to Justice: Should an Algorithm Be Deciding Your Case?*, 35 MICH. J. INT'L L. 485 (2014).

41. Larson, *supra* note 4, at 77; *see also Mich. Supreme Court Announces Groundbreaking MI–Resolve Online Mediation Program*, MICH. COURTS NEWS RELEASE (Aug. 7, 2019), https://courts.michigan.gov/News–Events/press_releases/Documents/Statewide%20Media%20Release%20ODR.pdf (discussing a new online service intended to resolve disputes involving small claims, general civil, or landlord–tenant matters); Civil Justice Council Online Dispute Resolution Advisory Group, *Online Dispute Resolution for Low Value Civil Claims*, COURTS & TRIBUNALS JUDICIARY (2015), https://www.judiciary.uk/publications/online-dispute-resolution-for-low-value-civil-claims-2/ (recommending use of online dispute resolution programs for English courts).

42*. See generally* Carolyn McKay, *Video Links from Prison: Court "Appearance" within Carceral Space*, 14 LAW CULT. & HUMANIT. 242 (2018). For discussion on the potential for ADR in different court settings, *see* Larson, *supra* note 4; Brian A. Pappas, *Online Court: Online Dispute Resolution & The Future of Small Claims*, 12 UCLA J. L. TECH. 1, 16 (2008).

43*. Clark County Court Uses New Technology from Tyler to Resolve Disputes Online*, BUSINESS WIRE (Apr. 17, 2018), https://www.businesswire.com/news/home/20180417005157/en/Clark-County-Court-New-Technology-Tyler-Resolve (discussing the use of online dispute resolution technology to assist in divorce mediations); *see also* Larson, *supra* note 4, at 85, 92 (discussing the ability to use ODR to aid in consumer debt dispute mediations); Martin Gramatikov & Laura Klaming, *Getting Divorced Online: Procedural and Outcome Justice in Online Divorce Mediation*, 14 J. L. & FAM. STUD. 97, 120 (2012); Sabine Braun, *Videoconferencing as a Tool for Bilingual Mediation*, UNDERSTANDING JUSTICE PROJECT 194 (2016).

44. Rabinovich–Einy & Katsh, *supra* note 4, at 59 (discussing "Kleros," the arbitration system "meant to address smart contract–related disputes."); *see, e.g.*, Colin Rule & Indu Sen, *Online Dispute Resolution and Ombuds: Bringing Tech. to the Table*, 8 J. INT'L OMBUDSMAN ASS'N 70, 73 (2015) (discussing how availability of "Skype" and "Google Hangouts" provides opportunities for decreased costs and increased engagement in online disputes); Dafna Lavi, *Three Is Not a Crowd: Online Mediation–Arbitration in Business to Consumer Internet Disputes*, 37 U. PA. J. INT'L L. 871, 880 (2016). *See generally*, MAUD PIERS & CHRISTIAN ASCHAUER, ARBITRATION IN THE DIGITAL AGE: THE BRAVE NEW WORLD OF ARBITRATION (2018).

disputes, and motor vehicle injuries.[45] The CRT provides free legal information to users,[46] helps users reach negotiated resolutions,[47] and ultimately issues decisions in the event that negotiation does not succeed.[48]

The differences among the ODR processes described above far overwhelm any similarities.[49] If one seeks to analyze the pros and cons of any of these processes from the perspectives of psychology, cost, access to justice, transparency, or any other angle, one will get different results for each process and context. That is, one may love one form of "ODR" for a particular situation but hate another. Because using the term "ODR" obscures rather than aids analysis, we should cease to use the phrase.[50] This problem cannot be solved by using a different term, such as "Technology Assisted Dispute Resolution"[51] or "Technology Mediated Dispute Resolution."[52] My critique is not that the *wrong* term is being used but, rather, that it is not useful to group so many disparate processes under *any* single term. Nonetheless, because the term is so frequently used, and because it was used by my friends, the organizers of the symposium, and in the panel discussion, I will set aside my definitional crankiness and do my best to get down to even more important business.

III. HUMAN PSYCHOLOGY & DISPUTE RESOLUTION

Human psychology impacts dispute resolution in many ways. Below, I focus on perception and memory, the challenges humans face in assessing what they want, communication, and judgment and decision making. Each section first briefly discusses the particular psychological phenomenon and then examines how that psychology impacts dispute resolution.

A. Perception & Memory of Events

1. The Psychology of Human Perception & Memory

While humans are quite good at using our senses to perceive our surrounding environment, we miss a lot and sometimes perceive things and events inaccurately.[53] We may be looking down instead of up, or focused on the

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45. CIVIL RESOLUTION TRIBUNAL, https://civilresolutionbc.ca/ (last visited Oct. 13, 2019) (describing the British Columbia Civil Resolution Tribunal, Canada's first online tribunal, which handles issues including car accident injuries, small claims, and housing disputes).

46*. Id.* "Solution Explorer," also assists users in selecting the correct application form for their specific dispute.

47*. Id.*

48*. Id.*

49. Janet Martinez, *Designing Online Dispute Resolution*, 2020 J. DISP. RESOL. 198.

50. Although I make this proposal sincerely, I also recognize that my advocacy will almost certainly fail, as it did when I tried to move our field away from using the term "ADR."

51. Larson, *supra* note 31, at 155.

52. *See generally* David Allen Larson, *Tech. Mediated Dispute Resolution (TMDR): Opportunities and Dangers*, 38 U. TOL. L. REV. 213 (2006).

53*. See* JENNIFER K. ROBBENNOLT & JEAN R. STERNLIGHT, PSYCHOLOGY FOR LAWYERS: UNDERSTANDING THE HUMAN FACTORS IN NEGOTIATION, LITIGATION, AND DECISION MAKING 7–27 (2012).

foreground instead of the background.[54] Famous studied examples include failing to observe gorillas appearing in videos,[55] failing to observe a gorilla in an MRI readout,[56] or failing to observe a crime in progress.[57] Magicians are masters at taking advantage of humans' limited perception.[58] Moreover, our increasing focus on our phones only adds to our perceptive issues, as illustrated by the rapidly escalating number of pedestrian accidents.[59] Yet, despite our clear limits, we tend to think our perceptive capabilities are better than they are. Psychologists call our weakness in noticing changes that take place in our environment "change blindness."[60]

When it comes to categorizing the information we do take in, human perception is impacted by our prior knowledge–what psychologists call "schema," "scripts," and "stereotypes."[61] Often this prior information is extremely helpful (i.e., allowing us to identify a large moving object such as a car, even though we have not seen that exact car before).[62] However, sometimes our prior knowledge may lead us astray. We may, for example, perceive that persons of a certain race or ethnicity are more likely to be holding a gun than a harmless object,[63] perceive that demonstrators have overstepped appropriate limits depending on whether or not the

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54. Interestingly, those with ADD or ADHD may sometimes perceive things that those of us who are "neurotypical" would miss, due to our ability to screen out "irrelevant" stimuli. William Dodson, *Uncomfortable Truths About the ADHD Nervous System*, ADDITUDE (July 2, 2019), https://www.additudemag.com/adhd-in-adults-nervous-system/.

55. ROBBENNOLT & STERNLIGHT, *supra* note 53, at 7–14; Daniel Simon & Christopher Cabris, *Gorillas in Our Midst: Sustained Inattentional Blindness for Dynamic Events*, 28 PERCEPTION 1059, 1068 (1999).

56. CHRISTOPHER CHABRIS & DANIEL SIMONS, THE INVISIBLE GORILLA: AND OTHER WAYS OUR INTUITION DECEIVES US 35 (2010).

57. Deborah Davis et al., *"Unconscious Transference" Can Be an Instance of "Change Blindness,"* 22 APPLIED COGNITIVE PSYCHOL. 605, 610 (2008); *see also* Graham Davies & Sarah Hine, *Change Blindness and Eyewitness Testimony*, 141 J. PSYCHOL. 423, 433 (2007). *See generally* Kally J. Nelson et al., *Change Blindness Can Cause Mistaken Eyewitness Identification*, 16 LEGAL & CRIMINOLOGICAL PSYCHOL. 62 (2011).

58. Cyril Thomas et al., *Does Magic Offer a Cryptozoology Ground for Psychology?*, 19 REV. GEN. PSYCHOL. 117, 117 (2015) ("Among the procedures that magicians use to trick the audience, many call upon precise knowledge of the human mind and its limitations . . . [M]agicians manipulate spectators' perception by relying on intuitive knowledge about the rules governing human cognition.").

59*. See* Alva O. Ferdinand, *Tech. is Better Than Ever – But Thousands of Americans Still Die in Car Crashes Every Year*, THE CONVERSATION (May 1, 2018, 6:40 AM); Fernando A. Wilson & Jim P. Stimpson, *Trends in Fatalities from Distracted Driving in the U.S., 1999–2008*, 100 AM. J. PUB. HEALTH 2213, 2213 (2010).

60*. See generally* Daniel T. Levin et al., *Change Blindness Blindness: The Metacognitive Error of Overestimating Change–Detection Ability*, 7 VISUAL COGNITION 397 (2000) (introducing the term "change blindness blindness" along with two experiments providing support for this metacognitive error); Daniel J. Simons & Christopher F. Chabris, *What People Believe About How Memory Works: A Representative Survey of the U.S. Population*, 6 PLOS ONE 1, 3–6 (2011).

61. ROBBENNOLT & STERNLIGHT, *supra* note 53, at 12.

62. Indeed, as programmers are working to provide such knowledge to autonomous vehicles, we have seen that its absence can be deadly. An autonomous car in Arizona killed a bicyclist because even though it perceived an object in the road, it did not properly characterize the object as a person walking their bicycle. *Autonomous Car Crashes: Who – Or What – Is to Blame?*, WHARTON: UNIV. OF PENN. (Apr. 6, 2018), http://knowledge.wharton.upenn.edu/article/automated-car-accidents/.

63. B. Keith Payne, *Weapon Bias: Split–Second Decisions and Unintended Stereotyping*, 15 PSYCHOL. SCIENCES 287, 287–89 (2006); Anthony G. Greenwald et al., *Targets of Discrimination*: *Effects of Race on Responses to Weapons Holders*, 39 J. EXPERIMENTAL SOC. PSYCHOL. 399, 404-05 (2003).

perceiver holds political views in sync with the demonstrator,[64] or perceive that referees in a sporting event favor the opposing team.[65]

Human perception is also impacted by our emotions. For example, we are more likely to see things in a positive way when we are otherwise in a good mood.[66] Also, we may perceive events in light of our own self–image and aspirations. If something bad happens, we may well perceive that it was caused by someone else, or by environmental factors, rather than by our own missteps.[67] Yet, while emotions are clearly important, and while we can be good at identifying emotions based on small differences in facial expressions,[68] we are not as good as we think at perceiving others' emotions.[69] Nor are we as good as we think at determining whether others are lying.[70] Malcolm Gladwell explores these and other issues in depth in his new book, Talking to Strangers.[71]

In addition to having imperfect perceptive capabilities, humans also have imperfect memories. No matter how accurately we may perceive events, our memories often both fade[72] and change over time.[73] These memory changes are not random but can be influenced by subsequent events. For example, humans will

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64. Dan M. Kahan et al., *They Saw a Protest: Cognitive Illiberalism and the Speech–Conduct Distinction*, 64 STAN. L. REV. 851, 862, 883–885, 900 (2012); *see also* Michael E. Miller, *Viral Standoff Between a Tribal Elder and a High Schooler is More Complicated Than it First Seemed*, WASH. POST (Jan. 22, 2019), https://www.washingtonpost.com/local/social-issues/picture-of-the-conflict-on-the-mall-comes-into-clearer-focus/2019/01/20/c078f092-1ceb-11e9-9145-3f74070bbdb9_story.html?noredirect=on&utm_term=.cf5336823aee.
(discussing how preconceptions affected the public's interpretation of video showing conflict between white high school students, an older Native American, and African–American protesters at the Lincoln Memorial).

65. Albert H. Hastorf & Hadley Cantril, *They Saw a Game: A Case Study*, 49 J. ABNORMAL SOC. PSYCHOL. 129, 130–32 (1954).

66. *See, e.g.*, George Loewenstein & Jennifer Lerner, *The Role of Affect in Decision Making*, *in* HANDBOOK OF AFFECTIVE SCIENCES 619, 619 (Richard J. Davidson et al. eds., 2003).

67. Edward E. Jones & Richard E. Nisbett, *The Actor and the Observer: Divergent Perceptions of the Causes of Behavior*, ATTRIBUTION: PERCEIVING THE CAUSES OF BEHAVIOR 79, 82 (Edward E. Jones et al. eds., 1972) (introducing the actor–observer effect); *see also* Richard E. Nisbett, *Behavior as Seen by the Actor and as Seen by the Observer*, 27 J. PERSONALITY SOC. PSYCHOL. 154, 163 (1973) (providing results for three studies on the actor–observer effect).

68. *See, e.g.*, PAUL EKMAN, EMOTIONS REVEALED: RECOGNIZING FACES AND FEELINGS TO IMPROVE COMMC'N AND EMOTIONAL LIFE 56-58 (2d ed. 2003); Randall A. Gordon et al., *Non–Verbal Behaviour as Commc'n: Approaches, Issues, and Research*, *in* THE HANDBOOK OF COMMC'N SKILLS 73, 85 (Owen Hargie ed., 2006); MARK L. KNAPP & JUDITH A. HALL, NONVERBAL COMMC'N IN HUMAN INTERACTION 138–42 (6th ed. 2005).

69. *See* Thomas Gilovich et al., *The Illusion of Transparency: Biased Assessments of Others' Ability to Read One's Emotional States*, 75 J. PERSONALITY SOC. PSYCHOL. 332, 343 (1998) (investigating the illusion of transparency); *see also* MALCOLM GLADWELL, TALKING TO STRANGERS (2019) (providing numerous real–world examples of how we are poor at understanding each other or detecting when others are lying).

70. Bella M. DePaulo et al., *The Accuracy–Confidence Correlation in the Detection of Deception*, 1 PERSONALITY SOC. PSYCHOL. 346, 346 (1997); *see also* Charles F. Bond, Jr. & Bella M. DePaulo, *Accuracy of Deception Judgments*, 10 PERSONALITY SOC. PSYCHOL. 214, 230 (2006) (finding a grand mean of 54% lie–truth discrimination rate through a meta–analysis).

71. GLADWELL, *supra* note 69.

72. DANIEL L. SCHACTER, THE SEVEN SINS OF MEMORY: HOW THE MIND FORGETS AND REMEMBERS 15–16 (2001).

73. Heike Schmolck, Elizabeth A. Buffalo, & Larry R. Squire, *Memory Distortions Develop Over Time: Recollections of the O.J. Simpson Trial After 15 and 32 Months*, 11 PSYCHOL. SCIENCES 39, 43–44 (2000); William Hirst et al., *A Ten–Year Follow–Up of a Study of Memory for the Attack of September 11, 2001: Flashbulb Memories and Memories for Flashbulb Events*, 144 J. EXPERIMENTAL PSYCHOL. 604, 619–21 (2015).

often remember things in ways that put themselves in a more positive light and remember rosier aspects of things when they are in a good mood.[74] Further, human memories can be changed by the way in which questions are asked,[75] or by what pictures they are shown.[76] Yet, as with perception, we tend to have high opinions of the accuracy of our own memories.[77]

2. How Perception & Memory Impact Dispute Resolution

The fact that human perception and memory are limited, impacted by emotion, and often self–serving, is very important for both adjudicative and negotiated dispute resolution. As this psychology has significantly different implications for the two types of dispute resolution, I will discuss them separately.

If an adjudicator, human or otherwise, depends on humans' reports of what happened, that adjudicator may well be relying on flawed facts. Even when humans try to be truthful about their experiences,[78] they are likely to have perceived and remembered facts imperfectly.[79] Therefore, we should hesitate to have computers or any other purported neutral resolve disputes based merely on contested facts presented by disputants.[80] While finding the truth is challenging for any adjudicator, human or otherwise, at least a human adjudicator can seek to separate fact from fiction and weigh competing evidence considering alternative perspectives. It is harder to see how a computer adjudicator, relying merely on disputants' differing versions of the facts, will spit out a just solution. Nor can one assume that photographs or other documents submitted by a disputant will resolve all issues, as documents can be interpreted in various ways and can even be faked.[81] Thus, if online adjudication is based on disputants' factual assertions, it may well be based on false facts.[82]

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74. Michael Dufner, Jochen E. Gebauer, Constantine Sedikides, & Jaap J. A. Denissen, *Self–Enhancement and Psychological Adjustment: A Meta–Analytic Review*, 23 PERSONALITY SOC. PSYCHOL. 48, 48–53, 58–60 (2019) (reviewing how a person's self–enhancement influences their personal and interpersonal adjustment); Terence R. Mitchell et al., *Temporal Adjustments in the Evaluation of Events: The "Rosy View,"* 33 J. EXPERIMENTAL SOC. PSYCHOL. 421, 428, 434, 442 (1997).

75. Elizabeth F. Loftus & John C. Palmer, *Reconstruction of Automobile Destruction: An Example of the Interaction Between Language and Memory*, 13 J. VERBAL LEARNING & VERBAL BEHAVIOR 585, 588 (1974).

76. For example, participants were led to believe they had shaken hands with Bugs Bunny at Disney, though Bugs Bunny is not a Disney character. Kathryn A. Braun, Rhiannon Ellis, & Elizabeth F. Loftus, *Make My Memory: How Advertising Can Change Our Memories of the Past*, 19 PSYCHOL. MKT. 1, 13–18 (2002) (experiment two).

77. Simons & Chabris, *supra* note 60, at 5.

78. Of course, humans may well lie about events as well, which also creates adjudication challenges. Humans are not very good at telling when others are lying. ROBBENNOLT & STERNLIGHT, *supra* note 53, at 153–57. To date, we also lack technology that can reliably detect lies. Jean R. Sternlight, *Justice in a Brave New World?*, 52 U. CONN. L. REV. (forthcoming 2020).

79. *See generally* Elizabeth F. Loftus, *The Malleability of Human Memory: Info. Introduced After We View an Incident Can Transform Memory*, 67 AM. SCIENTIST 312 (1979) (reviewing seminal findings on how false information can supplement a person's memory).

80. Needless to say, adjudication is easier when the relevant facts are not contested.

81. Sternlight, *supra* note 78; *see also* Robert Chesney & Danielle Keats Citron, *Deep Fakes: A Looming Challenge for Privacy, Democracy, and National Security*, 107 CAL. L. REV. (forthcoming 2019).

82. The implications of psychology for the adjudicators themselves will be discussed *infra* when we look at judgment and decision–making.

The psychology of perception and memory is also very important to the extent disputants seek to resolve their issues through negotiation or mediation. In this context it can be extremely helpful for the disputants to come to realize that their view of the dispute is not uniquely correct.[83] Many disputes arise and linger because of misunderstandings based on differing perceptions and memories of common events. If disputants can come to recognize that it is possible for multiple interpretations of the facts to coexist, perhaps disputants will be able to resolve their issues or forgive one another and move on to a better future relationship. When we are sure someone else deliberately harmed or insulted us, we may want to insist on revenge, or at least a day in court or substantial compensation.[84] However, if we can somehow come to understand that we, too, were part of the problem, or that the bad thing that happened may not have been deliberate or even anyone's fault, resolution comes easier.

Helping disputants come to the realization that their version of the facts may be just one potential version, or even wrong altogether, is often the work of therapists, lawyers, mediators, and friends. Indeed, many see this insight as central to the role of mediators.[85] In order to help disputants see that there is likely more than one side to every story, mediators use techniques including role reversal, reframing, rhetorical questioning, and direct questions to help parties begin to shift their perceptions of a dispute.[86] Lawyers can use similar techniques to help their clients understand that their assumptions and facts may have been wrong, that harm may have been unintended, and that relationships can be mended.[87]

However, it is often not easy to convince people to set aside their assumptions and beliefs about facts and one another. While we are quite ready to believe that *others'* perceptions and memories are flawed, it is much harder for most people to accept that their own are equally imperfect.[88] Merely telling a person that their own

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83. For considerations of how perspective–taking plays a role in the attorney–client dynamic, *see* ROBBENNOLT & STERNLIGHT, *supra* note 53, at 261. I do not mean to suggest that lawyers or judges are immune to these or other biases. They are not. *See, e.g.*, RANDALL KISER, BEYOND RIGHT AND WRONG: THE POWER OF EFFECTIVE DECISION MAKING FOR ATTORNEYS AND CLIENTS 283–307 (2010) (discussing that lawyers are impacted by numerous cognitive biases and heuristics); Chris Guthrie, Jeffrey J. Rachlinski, & Andrew J. Wistrich, *Inside the Judicial Mind*, 86 CORNELL L. REV. 777, 816 (2001) (reporting on empirical research showing federal magistrate judges were subject to cognitive illusions including anchoring, framing, hindsight bias, inverse fallacy, and egocentric bias).

84*. See* Emily Sherwin, *Compensation and Revenge*, 40 SAN DIEGO L. REV. 1387, 1400 (2003) ("[S]ome aspects of modern compensatory remedies suggest that the law still provides an outlet for the impulse toward personal revenge.").

85*. See, e.g.*, Carrie Menkel–Meadow, *The Trouble With the Adversary System in a Postmodern, Multicultural World*, 38 WM. & MARY L. REV. 5, 22 (1996); *see also* Gary Friedman & Jack Himmelstein, *Resolving Conflict Together: The Understanding–Based Model of Mediation*, 2006 J. DISP. RESOL. 523 (2006) (emphasizing the importance of disputants coming to understand one another's perspectives).

86*. See, e.g.*, James H. Stark & Douglas N. Frenkel, *Changing Minds: The Work of Mediators and Empirical Studies of Persuasion*, 28 OHIO ST. J. ON DISP. RESOL. 263, 273–74, 297–99 (2013) (examining empirical research underlying these and other persuasion techniques).

87*. See, e.g.*, Jean R. Sternlight & Jennifer Robbennolt, *Good Lawyers Should be Good Psychologists: Insights for Interviewing and Counseling Clients*, 23 OHIO ST. J. ON DISP. RESOL. 437, 527–31, 538–48 (2008).

88*. See, e.g.*, DAVID DUNNING, SELF–INSIGHT: ROADBLOCKS AND DETOURS ON THE PATH TO KNOWING THYSELF 2–9 (2005); Emily Pronin, *The Introspection Illusion*, 41 ADVANCES EXPERIMENTAL SOC. PSYCHOL. 1, 10–12 (2009).

perception or memory may be flawed is not likely to change that person's mind.[89] Moreover, whereas one might assume that data would cure our perceptual and memory errors, it turns out that humans are extremely good at interpreting data to support their preexisting views. As one psychologist puts it, "[D]ata has only a limited capacity to alter the strong opinions of others. Established beliefs can be extremely resistant to change, even when scientific evidence is provided to undermine those beliefs."[90]

The key to changing minds and helping people appreciate others' perspectives turns out to be connected to innately human factors such as emotion, liking, empathy, rapport, and means of communication.[91] When we make strong human connections we are better able to rethink our positions and change our minds.[92] Effective communication and persuasion turns not only on providing information, but also on listening, and it potentially involves body language and intonation as well as words.[93] We have likely all sat with people who are masters at helping us or others open our respective minds to alternative views.

By contrast, it is difficult for many of us to imagine that a computer or robot would help a person gain that insight. While a computer could certainly inform a person that their perception may have been erroneous or their memory flawed, it is hard to imagine computers employing the interpersonal skills necessary to help a person come to such realizations. Just receiving a message from a computer (or reading in a book or article) that one's perception or memory may have been flawed is often not enough to shake a person out of their certainty that their view is the right view.[94] Indeed, such a missive could even backfire and lead a person to defensively lock into their original position.[95]

Is it totally inconceivable that robots or avatars could ever generate the empathy and rapport needed to help humans rethink their positions? Maybe not. David Larson, who is perhaps the most optimistic legal commentator on this front, contends that robots and avatars may one day be as good or better than humans in helping humans process difficult issues and advance their understanding.[96] In particular, pointing to the fact that robots are already being employed as companions and used in the health sciences to obtain or convey embarrassing

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89. TALI SHAROT, THE INFLUENTIAL MIND: WHAT THE BRAIN REVEALS ABOUT OUR POWER TO CHANGE OTHERS 15 (2017); *see also* Stark & Frenkel, *supra* note 86 (discussing a variety of persuasive techniques that can be useful to mediators).

90. SHAROT, *supra* note 89. Data has limited ability to change minds both because we tend to insulate ourselves in "bubbles" and because even once exposed to alternative information, our brains often help us resist information we do not want to see or hear. Carrie Menkel–Meadow, *Why We Can't "Just All Get Along": Dysfunction in the Polity and Conflict Resolution and What We Might Do About It,* 2018 J. DISP. RESOL. 5 (2018).

91*. See, e.g.*, SHAROT, *supra* note 89, at 48–51; Stark & Frenkel, *supra* note 86, at 273–74.

92. Needless to say, a full discussion of effective communication and persuasion exceeds the scope of this Article. For more on this topic, *see* ROBBENNOLT & STERNLIGHT, *supra* note 53, at 491 (discussing psychology of communication, persuasion, and counseling)..

93*. Id.*

94*. See* Brendan Nyhan & Jason Reifler, *When Corrections Fail: The Persistence of Political Misperceptions*, 32 POL. BEHAVIOR 303, 323 (2010) (reporting experimental findings where attempts at correcting misconceptions failed and, at times, strengthened those misperceptions).

95*. See* Nyhan & Reifler, *supra* note 94; *see also* Christopher A. Bail et al., *Exposure to Opposing Views on Social Media Can Increase Political Polarization*, 115 PROC. NAT'L ACAD. U.S. 9216, 9216–17 (2018) (finding individuals intensified their political views after being exposed to Twitter bots from the opposing party).

96. Larson, *supra* note 36, at 108–10.

information, Larson argues that we should not assume robots are unable to establish rapport or communicate emotion.[97]   Larson and others also emphasize that the younger generation may be more comfortable than older persons in establishing meaningful relationships online, or with robots or avatars.[98]   Perhaps Professor Larson is right in the long term, but we will only get to such a world if we focus on human psychology. I, for one, think we have quite a way to go before most of us will build relationships as effectively with robots or computers as we might with trained and talented humans.   However, exploring this possibility requires that we do empirical research rather than rely on our instincts, and we need to appreciate that the research must be updated to reflect changing attitudes towards robots and artificial intelligence.

B. Human Wants

1. The Psychology of Human Wants

ODR often uses what Robert Condlin has called the "little boxes" format.[99] In this type of ODR disputants employ software that helps them check boxes describing their claim or defense and provide brief narratives to give additional details. This approach has its pros and cons from a communication perspective, as will be discussed infra.[100] Here, my focus is on two critical aspects of human wants: (1) Do humans really "know" what they want or would be willing to provide? (2) How easily can we predict what humans might want or be willing to provide? Both issues are important because box–checking generally requires disputants to state what they want, and box–creation requires system designers to predict what humans might want or be willing to give.

At first glance, it might seem very reasonable to assume that disputants know what they want.   An economist might say that ODR presumes wants are "exogenous," or predetermined.[101] Given such a premise, it seems sensible to set up a system that asks claimants what they want, asks respondents what they are willing to provide, and then uses technology to bridge the gap either through adjudication or negotiation.   But what if human psychology is such that an individual who has purportedly suffered harm does not really "know" what they

97. *Id.* at 113, 135–47; *see also* Daniel Kane, *Robot Learns to Smile and Frown*, UNIV. OF CAL. AT SAN DIEGO NEWS CTR. (July 9, 2009), https://ucsdnews.ucsd.edu/archive/newsrel/science/07-09Rob ot.asp (describing an Einstein robot that "has learned to smile and make facial expressions through a process of self–guided learning.").

98. David A. Larson, *Online Dispute Resolution: Do You Know Where Your Children Are?*, 19 NEGOT. J. 199, 199 (2003) (pointing out that "our children already have developed effective online relational behaviors and can establish trust and intimacy online."); Noam Ebner, *Online Dispute Resolution and Interpersonal Trust*, ODR: THEORY & PRACTICE 234, 248 (Mohammed S. Abdel Wahab, Ethan Katsh, & Daniel Rainey eds., 2012) (suggesting that people will trust online communications more as they become more familiar with the technology).

99. *See* Condlin, *supra* note 5, at 734-36. Once disputants have set out their positions using the "little boxes," ODR can either adjudicate the dispute or try to help disputants work out a settlement.

100. *Id.* at 718–19.

101. *See* Lars Udéhn, *Econ., Exogenous Factors and Interdisciplinary Research*, 25 SOC. SCIENCES INFO. 259, 261 (1986) ("A first way in which economics treats its exogenous variables is to accept them as *given* . . . Among the givens of economics are usually recognized such things as the wants, tastes and valuations of individuals, . . . the legal framework and the institutional setting in which economic activity takes place.").

want to do in response to that harm, at least in any meaningful sense of the word? And what if a person against whom a claim is made does not really "know" how they want to respond? It turns out that what people "want" or are willing to provide may depend on numerous factors, including what they learn about how other disputants or advisors view the dispute;[102] how they come to understand their legal rights and obligations;[103] how they understand the consequences and costs of seeking or resisting various kinds of relief;[104] and how other aspects of the dispute are resolved.[105] Furthermore, "wants" may well change over time as disputants change their minds, as circumstances change, and as options are framed differently.[106]

It is also not easy to predict how people may respond to adverse circumstances. Some people prefer to "lump it" or "suck it up" when bad things happen, whereas others are much more demanding.[107] Accordingly, when claims are asserted, it would be a mistake to assume that most people focus primarily on material things, such as financial compensation for past harms, as people may (and often do) have more future–oriented concerns.[108] Additionally, many people care not only about "distributive" justice and substantive fairness–who gets what and why–but also about "procedural" justice–being able to tell their story to someone they perceive

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102. Tamara Relis, *Civil Litig. from Litigants' Perspectives: What We Know and What We Don't Know About the Litig. Experience of Individual Litigants*, 25 STUD. L. POL. & SOC'Y 151, 162 (2002) (reviewing how lawyers "construct new meanings and explanations" for the litigant's dispute, reshaping the litigant's narrative).

103. *See, e.g.*, Rebecca L. Sandefur, *Access to What?*, 148 DAEDALUS 49 (2019) (noting that many people do not seek legal assistance because they do not realize that the law is relevant to their problem)*; see also* Relis, *supra* note 102, at 159 ("[M]ost litigants get persuaded [by their lawyers] not to expect too much from the legal process and not to unrealistically demand things in terms of rights, financial entitlements, and emotional and moral vindication."); ROBBENNOLT & STERNLIGHT, *supra* note 109, at 225–27 ("[O]ne of an attorney's most important functions is to serve as a voice of reason, telling clients when they are being unrealistic about their likelihood of success in their pursuits and saying no when appropriate.").

104. Costs can include negative impacts on one's personal life, such as increased stress, harm to one's sleep patterns, damage to one's work life, and increased depression. Relis, *supra* note 102, at 187–90. Additionally, it has been found that "even small claims litigants suffered devastating effects on their lives, including drastic social and personal repercussions, and years of incessant severe worry and anxiety just thinking about, fearing and preparing for court." *Id.* at 189.

105. *See generally* Lon L. Fuller, *The Forms and Limits of Adjudication*, 92 HARV. L. REV. 353, 394–404 (1978) (arguing that "polycentric" problems in which issues are intertwined may be better handled through negotiations than through adjudication).

106. *See* ROBBENNOLT & STERNLIGHT, *supra* note 53, at 88–92; Daniel Kahneman & Amos Tversky, *Choice, Values, and Frames*, 39 AM. PSYCHOL. 341, 341–42 (1984). At the same time, while people readily change their minds as to their wants, they often are not aware that they have changed their position. Michael B. Wolfe & Todd J. Williams, *Poor Metacognitive Awareness of Belief Change*, 71 Q. J. EXPERIMENTAL PSYCHOL. 1898, 1908 (2017).

107. *See* William L.F. Felstiner, Richard L. Abel, & Austin Sarat, *The Emergence and Transformation of Disputes: Naming, Blaming, Claiming*, 15 L. & SOC'Y REV. 631, 633–37 (1981) (explaining that not all persons who perceive they were injured will choose to assert claims, and that perceived injurious events, grievances, and disputes are all "subjective, unstable, reactive, complicated and incomplete," meaning individuals' perceptions of events varies and is transformed by subsequent events and conversations with a variety of persons).

108. *Id*. at 643. Carrie Menkel–Meadow has written about this issue eloquently in discussing the claims of women who were injured by the intra–uterine device known as the Dalkon Shield. She explains that while their claims were joined together, individual women had very different reactions and "wants" based on the physical and mental harms they had endured or anticipated. Carrie Menkel–Meadow, *Taking the Mass Out of Mass Torts: Reflections of a Dalkon Shield Arbitrator on Alternative Dispute Resolution, Judging, Neutrality, Gender and Process*, 31 LOY. L.A. L. REV. 513, 515–16, 531 (1998).

as neutral.[109] Many people may also care about justice in a more communal sense, either seeking retribution or perhaps obtaining an apology or in–kind relief that might help to restore justice.[110]

In case this sounds too abstract, let me use an example to explain what I mean. Imagine Pamela was fired from her job as a manager at Darby's Restaurant. One day, Pamela came to work and was told she did not have a job anymore. She was escorted off the premises by security. Pamela does not really know why she was fired, and she certainly does not know why she was treated (in her view) so shabbily by Darby, with whom she thought she had a pretty good relationship. She knows that she worked as a manager at Darby's for four years. She knows Darby recently told her that she was too disorganized and sometimes rude to customers. She knows she is a Latina. She knows she is forty–seven years old. She believes she was a good manager; she received performance evaluations that she thought were largely positive, although everyone can improve. She is very upset she was fired. She needs her job to support herself. She is not sure how long it may take to get another job.

So, what does Pamela "believe," and what does she "want?" Initially, perhaps, Pamela believes her termination was totally unfair and likely illegal. She suspects she may have been fired, at least in part, for a discriminatory reason. What else could it have been when she is basically a good employee? As for "wants," perhaps Pamela basically wants to roll time back and to not have been fired, but that is an impossibility. Maybe she wants to better understand what happened, to get more information from Darby, or hear him apologize. Or maybe she wants to express her emotions regarding what happened. Or does she just want to get another job and move on with her life? Does she even want to bring a claim? The truth is, Pamela herself does not know what she "wants" in any true sense. Whatever her wants may be initially, they will likely change as she talks to more people and learns more about the circumstances of her termination and her legal options.

In short, although a law school hypothetical might describe a set of events and state that Plaintiff wants $50,000 and an apology, and that Defendant is willing to provide $25,000 and a job, this is not how the real world typically works, at least for most disputes. Unlike Star Trek's Mr. Spock[111] or IBM's Watson computer,[112] humans do not usually come into a dispute programmed with this information. Real life disputants are not the same as what Professor Kate Kruse has called the "cardboard clients" of law school hypotheticals.[113] What does all of this mean for dispute resolution in general, and for ODR in particular?

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109. *See* ROBBENNOLT & STERNLIGHT, *supra* note 53, at 171–85; *see also* Ayelet Sela, *Can Computers be Fair? How Automated and Human–Powered Online Dispute Resolution Affect Procedural Justice in Mediation and Arbitration*, 33 OHIO ST. J. ON DISP. RESOL. 91 (2018) (reporting the results of an empirical study showing that, at least in one context, people felt they received more procedural justice from automated systems than from humans, but recognizing these results may have reflected limited expectations in automated settings).

110. *Id.*

111. STAR TREK: THE MOTION PICTURE (Paramount Pictures 1979); *see also* STAR TREK, ENCYCLOPAEDIA BRITANNICA, https://www.britannica.com/topic/Star-Trek-series-1966-1969#ref1263248 (last visited June 9, 2019).

112. WATSON ANYWHERE, IBM, https://www.ibm.com/watson (last visited June 9, 2019).

113. Katherine R. Kruse, *Beyond Cardboard Clients in Legal Ethics*, 23 GEO. J. LEGAL ETHICS 103, 103 (2010).

2. How Flexible Human "Wants" Impact Dispute Resolution

The fact that disputants may not have a fixed, predetermined view of what they want or what they are willing to provide has significant implications for adjudicative and non–adjudicative dispute resolution, including ODR. Both human and non–human adjudicators must rely on disputants to set out their claims and defenses. Human adjudicators can at least potentially recognize that disputants' wants will vary, appreciate that a claimant's wants may change, and ask disputants to think more deeply about what they want. It is likely harder, though maybe not impossible, for a computer or other technology to engage in this sort of interchange. ODR designers should try to consider the fact that disputants' wants may be flexible and undetermined. Rather than keep disputants locked into initial positions, they can try to design a process that allows disputants to adjust their demands and offers before the adjudicator makes a decision. Moreover, it is critical not to assume that all persons who have been affected by a particular situation will necessarily have the same wants or demands. Building this kind of creativity and flexibility into online adjudication will be difficult.

In response to this argument, ODR advocates may suggest that computers should sidestep human wants and instead adjudicate disputes by resolving all disputes of a certain type in the same way. If a product arrived broken, replace it; if there is a car accident, pay the bills; if a person is fired, give them compensation; if a couple divorces, here is the custody and child support arrangement. However, while this may sound good in theory, it is difficult to imagine that such a system could really work fairly, justly, or sensibly in most situations. How would such a system take into account comparative fault, causation, defenses, or specific facts? Few, if any, disputes are so cut and dry that most of us can contemplate ceding all judgment and discretion to a computer.[114] Furthermore, such a system may not provide disputants with the procedural justice many may crave.[115]

The malleability and unpredictability of human wants is even more important as one considers non–adjudicative processes. Human mediators (and therapists, lawyers, and friends) are experts at helping disputants rethink what they want and are willing to provide. Whether by asking good questions, encouraging disputants to share their perspectives, providing brainstorming opportunities, offering legal information, making alternative suggestions, or providing evaluations, humans can help disputants change their positions. As was discussed with perception and memory, humans' ability to connect through empathy, emotion, and rapport can be very useful in helping one another rethink and adjust. In addition, human mediators are trained to provide disputants with procedural justice, so disputants are at least satisfied they have been heard by a neutral party.[116]

I suggest that computers are not likely the best tool for helping humans think through how they want to respond to a dispute or creatively work things out with a fellow disputant. ODR advocates may again counter that a computer can be programmed to help disputants refine and rethink their wants, and then move on to resolve their issues through negotiation. Certainly, it is true that computers can

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114. *See* Condlin, *supra* note 5, at 723–24.

115. *Id.* at 756–57.

116. *See generally* Nancy Welsh, *Do You Believe in Magic?: Self Determination and Procedural Justice Meet Inequality in Court–Connected Mediation*, 70 SMU L. REV. 721 (2017) (arguing that, in reality, the hope that mediation would provide procedural justice is not always fulfilled).

provide *some* help in this regard. Many ODR systems or proposals use computers to provide disputants with legal information so they can better think about their options.[117] A computer can also run predictive analytics as to whether certain types of claims or defenses are likely to prevail.[118] A computer might even be programmed to give prompts or ask certain questions to encourage disputants to rethink their positions: "Have you thought about how your proposed custody arrangement would affect your child?" or, "Have you considered how firing your employee might affect workplace morale?" or, "How do you think your opponent might view this situation?" In the Netherlands, a collaborative public–private partnership apparently made substantial strides towards setting up a system to resolve family disputes online before being shelved, at least temporarily, due to funding issues.[119] Maybe, surprisingly to some, computers can even provide a version of procedural justice that is as good or better than that provided by some humans.[120]

Yet, while I agree that computers' programmed questions may potentially help disputants think about their positions, my instinct is that computers are not likely to be as capable of encouraging humans to rethink their positions and interests as would humans, who can more easily create a relationship involving rapport, trust, and empathy.[121] Additionally, good dispute resolution ideally draws on creativity and originality. Because disputants do not necessarily see the world in the same way as other similarly situated disputants, a solution that has worked well for previous disputants may not necessarily be best for a new set of disputants. Creativity can help find new financial solutions, new forms of apology, new non–monetary solutions, and so on. Perhaps one day, computers will be able to generate creative alternatives.[122] David Larson has probably come the closest to imagining such a world.[123] The question of whether artificial intelligence can be creative is now being hotly debated in a variety of technical contexts.[124] But at least today, it

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117. *See, e.g.*, Carrel & Ebner, *supra* note 9, at 33; Larson, *supra* note 4, at 83–89.

118. *See, e.g.*, RICHARD SUSSKIND, TOMORROW'S LAWYERS: AN INTRO. TO YOUR FUTURE 53–54 (2017).

119. *See* Roger Smith, *Goodbye Rechtwijzer: Hello, Justice42*, LAW, TECH. & ACCESS TO JUSTICE (Mar. 31, 2017), https://law-tech-a2j.org/advice/goodbye-rechtwijzer-hello-justice42/; *see also* Roger Smith, *The Fate of Rechtwijzer's English Daughter: Relate Suspends Online Family Dispute Resolution Project*, LAW, TECH. & ACCESS TO JUSTICE (Sept. 28, 2017), https://law-tech-a2j.org/odr/rechtwijzers-english-daughter-relate-suspends-online-family-dispute-resolution-project/. For a discussion of why, in the perspective of one of its founders, Rechtwijzer failed, , *see* Roger Smith, *Rechtwijzer: Why Online Supported Dispute Resolution is Hard to Implement*, LAW, TECH. & ACCESS TO JUSTICE (June 20, 2017), https://law-tech-a2j.org/odr/rechtwijzer-why-online-supported-dispute-resolution-is-hard-to-implement/.

120. Sela, *supra* note 109; *see also* Nancy A. Welsh, *ODR: A Time for Celebration and the Embrace of Procedural Safeguards*, ADRHUB.COM (July 4, 2016), http://www.adrhub.com/profiles/blogs/procedural-justice-in-odr (suggesting that ODR advocates and system designers "embrace the procedural safeguards that will help your processes to achieve the potential you imagine.").

121. *See, e.g.*, Welsh, *supra* note 116; *see also* Nancy A. Welsh, *Magistrate Judges, Settlement and Procedural Justice*, 16 NEV. L.J. 983 (2016) (arguing for structural changes to allow magistrate judges to provide more procedural justice to disputants in settlement conferences).

122. *See generally* Susskind, *supra* note 118, at 54 (arguing that by using machine learning techniques to analyze "the work of regulators, we may be able to predict compliance outcomes in entirely novel ways.").

123. Larson, *supra* note 31.

124. *See, e.g.*, Sarvasv Kulpati, *Can AI Be Creative?: A Comprehensive Look at the State of Computers and Creativity*, TOWARDS DATA SCIENCE (July 28, 2018), https://towardsdatascience.com/can-ai-be-

seems more likely that humans, rather than computers, will be able to make the jump to new solutions and connect disparate ideas in the legal setting.

Many of us have the sense that while computerized dispute resolution works fairly well for many disputes involving small online purchases, it may be less well suited for disputes involving family issues, employment, or complex business transactions. The psychology of "wants" helps us understand this instinct, as well as determine which disputes are most suitable for ODR and how ODR can be better designed. It is not so much that fewer dollars are involved with the online dispute but, rather, that the "wants" are simpler and more predictable in online purchases gone wrong. When a toy arrives broken, it is quite likely that the purchaser wants either a new toy or a refund, and it is also likely that the seller is willing to accommodate the buyer, so long as the buyer is not a frequent abuser of the system and the product was not too expensive. By contrast, when a marriage or employment relationship has gone awry, or when a business deal has derailed, it is much harder to predict how disputants might see the world, how they might want to resolve the dispute, how they might think their adversary sees the dispute, or how a resolution might be reached. Human dispute resolvers would seem to have a comparative advantage in these situations.

Yet, I am not suggesting that we should abandon the idea of using ODR for these kinds of disputes, but only that we ought to study this question empirically to determine whether my instinct is correct. If I am right that humans currently have a comparative advantage over computers in creating the kind of relationship in which disputants can rethink their positions and receive procedural justice, then this should impact both which disputes we assign to ODR and how we try to design ODR processes to better handle such situations.

C. Human Communication

1. The Psychology of Human Communication

Human communication is very rich. Unlike computers, that can easily be networked to transmit information through unambiguous numbers, human communicators "rely on a jumble of information gleaned from inference, social convention, memory, body language, and shared knowledge, as well as from the relevant verbal or written expressions."[125] Nonverbal communication, in particular, speaks volumes. Through our body language, facial expressions, and tone of voice, we communicate enthusiasm or boredom, confidence or skepticism, sympathy or disinterest, and much more. While our nonverbals can reinforce our spoken or written words, they can also contradict them at times or reveal that there is more to the story than we may be expressing. Poker players and good negotiators are experts at reading these "tells."[126] We can use nonverbal communication to obtain

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creative-2f84c5c73dca (observing that a computer came up with the idea that robots could walk without using their legs, but concluding that AI is the "paintbrush" for human creativity).

125. ROBBENNOLT & STERNLIGHT, *supra* note 53, at 142.

126. *See generally How to Play Your Hand: Lessons for Negotiators from Poker*, 2 UNLV GAMING L.J. 231 (2011) (containing symposium contributions by Joseph Asher, Russell Korobkin, Jack Binion, Howard Lederer, & Annie Duke).

or express information and to convey emotion or build or disrupt trust and rapport.[127]

At the same time, human communication is also very challenging and offers many opportunities for confusion and misunderstanding. What one person intends, says, or means is often (maybe usually) not what another person sees, hears, or understands. For one thing, we often fail to recognize that we have information that others lack. Things that are obvious to us may not be obvious to others.[128] Yet, we often do not realize that we have been misunderstood. Even when we seemingly keep our communications simple, such as when we exchange text messages or emails, opportunities for misunderstanding are rampant.[129]

Human psychology creates some additional logistical challenges for communication. For example, humans may be shy, longwinded, angry, or inarticulate. These and many other mental states may make it difficult for humans to express what they are thinking in a way that can be well understood by others.[130] Additionally, cultural differences in communication style are quite significant. Not only may the meaning of word usage and gestures differ, but various cultures also attribute different meaning and significance to silence, disagreement, and broader context.[131] Low–context cultures tend to focus much more on the meaning of specific words, whereas high–context communication is more indirect and dependent on relationships and circumstances between the parties.[132]

2. How Communication Impacts Dispute Resolution

The complexities of human communication have significant implications for both online and off–line dispute resolution. On one hand, in some ways computers and technology may be able to ease human communication difficulties. Computers can facilitate speedy, low–cost exchanges of information between people or entities, even if they are located far away from one another.[133] In our increasingly high–tech society, some people may prefer the anonymity and ease of written communication to having to face one another or talk on the phone.[134] ODR can feed this

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127. Aimee L. Drolet & Michael W. Morris, *Rapport in Conflict Resolution: Accounting for How Nonverbal Exchange Fosters Coordination on Mutually Beneficial Settlements to Mixed Motive Conflicts*, 36 J. EXPERIMENTAL SOC. PSYCHOL. 26, 46 (2000).

128. Psychologists call this phenomenon the "curse of knowledge." *See* Raymond S. Nickerson, *How We Know – And Sometimes Misjudge – What Others Know: Imputing One's Own Knowledge to Others*, 125 PSYCHOL. BULL. 737, 750 (1999).

129. *See, e.g.*, Nicholas Epley & Justin Kruger, *When What You Type Isn't What They Read: The Perseverance of Stereotypes and Expectancies over E–Mail*, 41 J. EXPERIMENTAL SOC. PSYCHOL. 414, 415 (2005).

130. *See, e.g.*, Guido Hertel et al., *Do Shy People Prefer to Send E–Mail? Personality Effects on Communication Media Preferences in Threatening and Non–threatening Situations*, 39 SOC. PSYCHOL. 231, 240–41 (2008).

131. RICHARD D. LEWIS, WHEN CULTURES COLLIDE: LEADING ACROSS CULTURES (4th ed. 2018).

132. ROBBENNOLT & STERNLIGHT, *supra* note 53, at 152.

133. These exchanges can take place contemporaneously or in an asynchronous fashion. Some of the best known ODR systems were devised to handle complaints that arose out of online transactions pertaining to e–commerce such as through eBay or PayPal. Colin Rule, *Quantifying the Economic Benefits of Effective Redress: Large E–Commerce Data Sets and the Cost–Benefit Case for Investing in Dispute Resolution*, 34 U. ARK. LITTLE ROCK L. REV. 767, 767 (2012).

134. *See, e.g.*, Lauren Newell, *Rebooting Empathy for the Digital Generation Lawyer*, 34 OHIO ST. J. ON DISP. RESOL. 1, 4 (2019).

expectation.[135] Computers can also aid parties who might be inarticulate, shy, or disorganized when exchanging their information.[136] Such exchanges may involve basic complaints and responses but may also include photos, documents, or even live Skype or FaceTime communications.[137] By asking certain questions and giving disputants pre–fabricated ways to describe their disputes, computers can help disputants organize their issues in an analytical fashion, consistent with legal categories.[138]

However, many online approaches to dispute resolution are very limited, from a communication perspective. To the extent that ODR relies on asking disputants to check off specific boxes and exchange limited textual information,[139] disputants will not be able to either communicate a broad range of beliefs and concerns nor learn much about fellow disputants' concerns, emotions, or states of mind. Mere textual communications will also make it extremely difficult for disputants to use their communications to build trust or rapport. Typing "trust me" or "please believe me" may be heartfelt, but has significant limits, as we have likely all experienced. Even videoconferencing, the richest form of online communication, lacks many of the nuances of in–person communication. There is no possibility for touch, visibility is limited, and even the audio is often imperfect.[140]

None of this means that we should abandon ODR. Rather, we should focus on the psychological aspects of communication and take them into account when deciding whether and when ODR makes sense and how it should be structured. Rich communication will be more important for some kinds of disputes and some disputants than others. Perhaps ODR text communications will be sufficient for many (but likely not all) issues that arise out of small internet business transactions. By contrast, when rich communication is important, text boxes may well prove to be insufficient. Moving forward, however, we should empirically test our instincts and try to figure out which kind of communication is best for which circumstances.

D. Judgment & Decision–Making

1. The Psychology of Human Judgment & Decision-Making

Human psychology also plays an important role in how we make judgments and decisions. This psychology can impact both disputants and neutrals. In particular, researchers have found that we are not always the rational profit

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135. Schmitz & Rule, *supra* note 4, at 122.

136. For example, an ODR program in Utah helps landlords and tenants exchange information that may help avoid evictions that would otherwise occur when communication fails. *See* Art Raymond, *BYU LawX Lab Launches Free, Online Landlord–Tenant Mediation Tool*, DESERET NEWS (July 4, 2019), https://www.deseretnews.com/article/900078187/byu-lawx-lab-hello-landlord-tenant-mediation-tool.html.

137*. See, e.g.*, Gary Marchant & Josh Covey, *Robo–Lawyers: Your New Best Friend or Your Worst Nightmare?*,   A.B.A.   J.   (2018), https://www.americanbar.org/groups/litigation/publications/litigation_journal/2018-19/fall/robolawyers/ (enumerating many lawyering tasks at which computers excel).

138. Condlin, *supra* note 5, at 734–38.

139*. Id.*

140*. 3 Disadvantages of Video Conferencing You Should Know About*, EZTALKS (Mar. 23, 2017), https://www.eztalks.com/video-conference/disadvantages-of-video-conferencing.html (discussing that, among other things, poor audio quality and audio delay may negatively impact video conferences).

maximizers hypothesized by traditional economists.[141]   Instead, we draw on emotion, are easily impacted by many kinds of persuasion, and rely on heuristics or shortcuts that may sometimes lead us to erroneous conclusions.[142]   Indeed, emotions are so important to us that when we are deprived of emotion and "gut" intuition we may not be able to make decisions at all.[143]   Nobel prize winner Daniel Kahneman famously catalogued many of the heuristics upon which we draw in his book "Thinking Fast and Slow,"[144] as well as in a series of important articles.[145]

While I prefer to call our judgment "human" rather than "irrational" or "biased," there is no doubt that it can sometimes lead us to erroneous conclusions.[146] For example, we have a tendency to make assessments consistent with our own point of view or interests and to overestimate our own role and importance.[147] Along these lines, we often think we do more than our share of the work and view our contributions in an overly positive light.[148]   Similarly, we tend to be overly optimistic and overestimate our likelihood of prevailing in a dispute.[149] In addition, the "anchoring" phenomenon may cause us to make estimates that are too high or too low based on irrelevant values that were presented to us earlier.[150]   Thus, a plaintiff or defendant in a dispute may get "stuck" in a position that is too high or too low merely because someone initially threw out a very low or very high number.[151] We also tend to be affected by "hindsight bias"[152]–that Monday morning quarterback phenomenon that makes us think "we knew it would turn out that way all along."[153]

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141. Christine Jolls, Cass R. Sunstein, & Richard Thaler, *A Behavioral Approach to Law and Economics*, 50 STAN. L. REV. 1471, 1476 (1998).

142*. See* ROBBENNOLT & STERNLIGHT, *supra* note 53, at 67–113 (chapters on judgment & decision making).

143*. Id.* at 47 (discussing a case study involving surgery on a patient's brain which illuminated the connection between emotions and decision making).

144*. See generally* DANIEL KAHNEMAN, THINKING FAST AND SLOW (2011). One of the first, if not *the* first book to apply psychological insights to dispute resolution was: KENNETH ARROW ET AL., BARRIERS TO CONFLICT RESOLUTION (1995). Though it is a great book, I believe it is a mistake to focus only on "barriers," as human psychology can sometimes cause people to enter into unwise agreements or prevent them from entering into desirable agreements.

145*. See generally* Amos Tversky & Daniel Kahneman, *Advances in Prospect Theory: Cumulative Representation of Uncertainty*, 5 J. RISK & UNCERTAINTY 297 (1992); Amos Tversky & Daniel Kahneman, *Loss Aversion in Riskless Choice: A Reference–Dependent Model*, 106 Q. J. OF ECON. 1039 (1991); Amos Tversky & Daniel Kahneman, *Rational Choice and the Framing of Decisions*, 59 J. OF BUS. S285 (1986); Amos Tversky & Daniel Kahneman, *Judgment Under Uncertainty: Heuristics and Biases*, 185 SCIENCE 1124 (1974).

146. And, at the same time, these heuristics usually serve us quite well!

147. ROBBENNOLT & STERNLIGHT, *supra* note 53, at 67–83; *see also* Suzanne Thompson, *Illusions of Control: How We Overestimate Our Personal Influence*, 8 CURRENT DIRECTIONS IN PSYCHOL. SCIENCE 187, 187 (1999) (discussing the heuristic we utilize that cause us to overestimate our influence and control in situations, even those that are governed primarily by chance).

148. ROBBENNOLT & STERNLIGHT, *supra* note 53, at 71.

149*. Id.* at 67–83; Jane Goodman–Delahunty et al., *Insightful or Wishful: Lawyers' Ability to Predict Case Outcomes*, 16 PSYCHOL. PUB. POL'Y & L. 133, 137 (2010); Elizabeth F. Loftus & Willem A. Wagenaar, *Lawyers' Predictions of Success*, 28 JURIMETRICS J. 437, 437 (1988).

150. ROBBENNOLT & STERNLIGHT, *supra* note 53, at 71–72.

151*. Id.*

152*. Id.* at 75–76.

153. Other frequently discussed judgment biases include the "representation" heuristic (basing a likelihood estimate on the degree to which an event or object is representative of a particular category) and the "availability" heuristic (judging the likelihood of an event based on how easily we can recall similar instances). ROBBENNOLT & STERNLIGHT, *supra* note 53, at 72–73.

When we draw on our judgments to make decisions, we are similarly impacted by our human psychology. We are quite influenced by how decisions are presented, and by whom. We can often easily be persuaded to take one course of action or another, for example, by the persuader's likeability, apparent expertise or trustworthiness, the clarity of their message, and their use of concrete examples, stories, and two–sided messages.[154] In addition, influence techniques can be powerful when they draw on such factors as reciprocity, consistency, commitment, and liking.[155] Our decisions can also be impacted by framing–specifically whether options are "framed" as gains or losses.[156] We don't like to lose things that we had,[157] and we are reluctant to treat losses as "sunk," even when we should.[158] Further, we may view choices less favorably if they are presented by an adversary (reactive devaluation),[159] we will view choices differently depending on whether they are presented individually or in the context of other options,[160] we may favor options that allow us to postpone our decisions,[161] we may favor choices that we think will help minimize future regret,[162] we tend to miscalculate the value and cost of things that will accrue in the future,[163] and so on.

2. How Judgment & Decision-Making Impact Dispute Resolution

The human psychology of judgment and decision–making is highly relevant as we think about the comparative talents of humans and computers to assist in dispute resolution. On the one hand, if ODR is adjudicative, some have suggested that computers can be a "cure" for the "irrational" aspects of human judgment and decision–making.[164] Computers will make decisions according to the algorithms with which they are programmed (by humans). We can instruct a computer to make determinations based only on information contained in its database, or perhaps from public databases according to set rules.[165] Computers are adept at obtaining information and reviewing it with lightning speed. Presumably, we will not instruct the computer to make determinations based on the appearance or accents of disputants, the order in which arguments are made, or other seemingly irrelevant factors. Certainly, computers won't be influenced by whether they like or dislike a disputant, nor by other emotions. Thus, just as a commercial retailer might use algorithms to decide whether to offer a customer a full refund or replacement item, so might a court, in theory, have a computer make a determination on whether a

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154. *Id.* at 115–39.

155. *Id.* at 127–31; ROBERT B. CIALDINI, INFLUENCE: SCIENCE AND PRACTICE (5th ed. 2009).

156. ROBBENNOLT & STERNLIGHT, *supra* note 53, at 88–92.

157. *Id.* at 91.

158. *Id.* at 92.

159. *Id.* at 96–97.

160. *Id.* at 92–93.

161. ROBBENNOLT & STERNLIGHT, *supra* note 53, at 101–02.

162. *Id.* at 99–100; Chris Guthrie, *Better Settle Than Sorry: The Regret Aversion Theory of Litig. Behavior*, 1999 U. ILL. L. REV. 43, 46 (1999).

163. ROBBENNOLT & STERNLIGHT, *supra* note 53, at 241–43.

164. *See* Cass R. Sunstein, *Algorithms, Correcting Biases*, SSRN 5 (Dec. 12, 2018), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3300171 (arguing that well–designed algorithms should be able to avoid cognitive biases of all kinds).

165. Carrel & Ebner, *supra* note 4, at 14 (discussing that technology is able to not only access information—i.e., legal standards, prior verdicts or settlements, or weather or financial data—quickly and efficiently, but also analyze that information and pass it on to the user).

person deserves a tax abatement or how child support or bail should be calculated.[166] Such data analysis can also be used to track dispute trends and thus facilitate creation of new policies.[167] In short, computerized adjudicators can provide an "all we want are the facts"[168] approach to dispute resolution.

All that said, there are also obvious potential drawbacks to using computers as adjudicators. As computer programmers have noted for years, "garbage in, garbage out."[169] Thus, if the data made available to the computer is flawed or incomplete, or if the algorithm itself is biased, the computer's decisions will be faulty. Researchers have found that artificial intelligence can sometimes "bake in" biases we would prefer to eliminate.[170] Therefore, it is quite conceivable that certain algorithmic forms of online dispute resolution could potentially be biased against classes of disputants on the basis of race, gender, ethnicity, age, or other factors.[171] Computers will also not be able to make equitable, moral, or reasonableness determinations other than those that can be programmed in advance.[172]

Similarly, the psychology of judgment and decision–making reveals that computers have potential strengths in aiding disputants to reach negotiated solutions.[173] First, to the extent disputants could benefit from being provided with more and better data, computers can be quite helpful. Computers are adept at both collecting and distributing data that can potentially help disputants see that they are being impacted by the various biases and heuristics outlined above. For example, one reason disputes can be difficult to resolve is that both sides may be overly optimistic as to their chance of success in court and thus unwilling to compromise

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166. *See, e.g.*, Tom Simonite, *Algorithms Should've Made Courts More Fair. What Went Wrong?*, WIRED (Sep. 5, 2019) https://www.wired.com/story/algorithms-shouldve-made-courts-more-fair-what-went-wrong/. Of course, there might be Constitutional or other issues that would need to be resolved before such determinations could be assigned to a computer, but that exceeds the scope of this Article.

167. The communications made through computers can also be recorded, allowing for further analysis of trends and fair resolution of disputes. Katsh & Rule, *supra* note 1, at 330.

168. Dragnet's Sergeant Joe Friday was famous for his focus on the facts in his interrogations. David Mikkelson, *Dragnet "Just the Facts,"* SNOPES (Mar. 29, 2002), https://www.snopes.com/fact-check/just-the-facts/.

169. GIGO, TECH. TERMS (Mar. 4, 2015), https://techterms.com/definition/gigo.

170. *See, e.g.*, VIRGINIA EUBANKS, AUTOMATING INEQUALITY: HOW HIGH–TECH TOOLS PROFILE, POLICE AND PUNISH THE POOR (2018) (arguing that technology now being used with respect to social programs is building a digital poorhouse that is both abusive and stigmatizing); FRANK PASQUALE, THE BLACK BOX SOCIETY: THE SECRET ALGORITHMS THAT CONTROL MONEY AND INFORMATION 9 (2015) (expressing concern that algorithmic decision-making may both incorporate discrimination and also make that discrimination difficult to identify); Pauline Kim, *Auditing Algorithms for Discrimination*, 166 U. PA. L. REV. 189, 202 (2017); Amy J. Schmitz, *Expanding Access to Remedies Through E–Court Initiatives*, 67 BUFF. L. REV. 89, 101 (2019) (urging courts to use great care in relying on algorithms and artificial intelligence). *But see* Sunstein, *supra* note 164 (arguing that well–designed algorithms should be able to avoid cognitive biases of all kinds); Anupam Chander, *The Racist Algorithm?*, 115 MICH. L. REV. 1023, 1025 (2017) (suggesting that "algorithmic affirmative action" can be used to remedy algorithmic discrimination).

171. *See, e.g.*, KATSH & RABINOVICH–EINY, *supra* note 8, at 49–50 (recounting an incident in which a Microsoft chatbot programmed for "light" conversation began to make offensive comments such as "feminism is cancer"). It is also possible that the online dispute resolution will be less biased than a human third party might be. *Id.*

172. Condlin, *supra* note 5, at 723.

173. KATSH & RULE, *supra* note 8, at 330–31 (asserting that ODR processes can provide a technological "Fourth Party" to "replace the human third party by helping the parties identify common interests and mutually acceptable outcomes" drawing on convenience, expertise, and trust afforded by ODR systems).

in a settlement.[174] A computer could potentially present data to both sides regarding jury verdicts or settlements in comparable cases, and thus bring parties closer to resolution. Second, a computer could help disputants evaluate their options more rationally, moving them away from overreliance on emotion, sunk costs, anchoring, or miscalculations as to the value of future benefit or costs.[175] Third, computers could help with the issue of reactive devaluation, which sometimes leads both sides to reject reasonable agreements presented by an opponent. Specifically, a computer could present a potential solution as the computer's proposal. Presumably, parties would be less skeptical of and thus less likely to reject a computer proposal than a proposal authored by an opponent.[176]

Computers can also potentially help disputants reject "bad" settlements that do not serve their best interests. Sometimes, rather than block a "rational" settlement that some might say ought to occur, our human decision making and judgment heuristics may cause us to enter agreements we should reject.[177] For example, our over–optimism, our fears, our desire to be liked, or our liking of others may cause us to accept settlement proposals that are not helpful. Computers, by presenting data, could potentially save disputants from this fate by helping them resist proposed settlements that do not serve their interests.

However, while it seems clear that computers and ODR can potentially help in all the ways outlined above, I also believe that humans may often be better than computers at helping fellow humans deal with judgment and decision–making issues in negotiations. The mere provision of data will often fail to change peoples' minds precisely because human brains do not process data as a computer would. Rather, people are very skilled at interpreting new data in the way most favorable to them.[178] So, even if a computer provides data on average settlements or jury verdicts, a plaintiff might tell herself that her broken leg was worse than the average broken leg, that she is more likeable than most plaintiffs, that defendant is less likeable than most defendants, and so on. Or, a defendant similarly may tell herself that the plaintiff's claim is weaker than the average claim. Also, if a disputant is impacted by such phenomena as anchoring, sunk costs, or framing,[179] the mere presentation of data may not pull them away from their biased interpretation. Unlike computers, humans care how information is presented, and by whom.

Thus, it may well be that human mediators, lawyers, or friends are more effective than computers in helping humans deal with their emotions and other judgment and decision–making issues. It turns out that humans can be very talented at helping other humans make judgments and important decisions.[180] For example, a human who is good at reflective listening can potentially defuse anger in a way a

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174. Or, in a transactional setting, a seller may believe they could get a better price from other buyers, or a buyer may believe they could get a better or cheaper product from other sellers.

175. Numerous studies have shown that lawyers, as well as lay people, are impacted by judgment and decision–making heuristics when they try to decide whether a particular settlement would be desirable. RANDALL KISER, BEYOND RIGHT AND WRONG: THE POWER OF EFFECTIVE DECISION MAKING FOR ATTORNEYS AND CLIENTS (2010).

176. This seems to be one of the values of mediation, as mediators can invite disputants to consider various solutions without revealing that the possible solution was offered by an opponent. Jean R. Sternlight, *Lawyers' Representation of Clients in Mediation: Using Economics and Psychology to Structure Advocacy in a Non–Adversarial Setting*, 14 OHIO ST. J. ON DISP. RESOL. 269–366 (1999).

177. ROBBENNOLT & STERNLIGHT, *supra* note 53, at 69.

178*. Id.* at 14–16.

179*. Id.*

180*. See* Carrell, *supra* note 20, at 1160–62.

computer might not.[181] Or, a human can help another human take a break or refocus or see that their tentative decision is fueled more by emotion than logic.[182] A person (mediator or attorney or friend) who is trusted and perceived to be an expert can clearly and persuasively convey information or data to the disputants. If a trusted person conveys the very same information that the disputant might have gleaned from a computer, I believe the odds are greater that the information from the human source will better help dislodge a disputant from his or her unreasonable position.[183]

Using their communication skills, people can listen to find out disputants' concerns.[184] They can build rapport, not only through their words, but also by using body language and facial expressions.[185] With the help of this rapport, they can build trust, and thus become quite influential. They can tell persuasive stories. They can use apt metaphors. In all of these ways and more, people can connect effectively with other people to help them make judgments and decisions. Just reading information in a chart, relevant though it may be, is not always going to be as useful as more human modes of interaction. Once again, we can see that knowledge of human psychology may be critically important as we decide whether and when ODR approaches are most useful, and how that ODR should be designed. And yet, once again, it will be important to test these instincts empirically.

IV. A FAMILY DISPUTE EXAMPLE

If all human brains were like computers, and if all disputes were like law school hypotheticals, ODR might truly help us resolve all or most disputes. Students in a family law course might encounter a fact pattern like this:

Wanda and Harry were married in 2003. They have two children; Sonny is 14 and Deirdre is 10. Wanda works part–time as a security guard and earns $22,000 per year. Harry designs websites and earns $54,000 per year (imagine that their prior work history and earnings and any savings and debts have also been provided). The couple has agreed to joint custody over the children. They have also agreed that the children should spend most of their time with Wanda and spend every other weekend and certain holidays with Harry, but details have yet to be worked out. They disagree on division of debts and assets and financial support, and that is what brings them to the court/computer.

With such a neatly categorized dispute, a computer might issue a custody plan and determine precisely how debts and assets should be divided and who should pay what financial support. Or, the computer might help Wanda and Harry settle the dispute themselves by providing data on how issues pertaining to custody,

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181. Megan Beck & Barry Libert, *The Rise of AI Makes Emotional Intelligence More Important*, HARVARD BUS. REVIEW (Feb. 15, 2017), https://hbr.org/2017/02/the-rise-of-ai-makes-emotional-intelligence-more-important (discussing that although there are things computers can do better than humans, humans still have the ability to relate to others, which computers cannot).

182. *Id.*

183. *Id.*

184. Hardeep Singh Anant, *Interpersonal Communication – A Fresh Look*, SSRN 3 (Dec. 8, 2009), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=1520394 (explaining various ways to improve communication skills, especially by listening in a way that is empathetic, in order to better understand the speaker's point of view).

185. *See generally* Ajut Kumar Kar, *How to Walk Your Talk: Effective Use of Body Language for Business Professionals*, 11 IUP J. OF SOFT SKILLS 16 (2017) (discussing various aspects of body language that can assist in building rapport).

debt/assets, and child support are typically determined in the jurisdiction and by making inquiries to help Wanda and Harry disclose more relevant information.

In the real world, however, all of the human psychology discussed above, and more, likely intervenes to make Wanda and Harry's situation a lot more complicated.[186] We see that the psychology of perception, memory, wants, communication, judgment, and decision all may play a significant role. Wanda is really mad about the fact that Harry had an affair. While this may not technically be relevant to debt and asset distribution, perhaps Wanda cannot focus on how to resolve the financial issues until she gets to tell Harry what she thinks about his conduct. Or, although the couple has seemingly "agreed" to joint custody, neither Harry nor Wanda may know what that means. Once the kids end up spending most of their time with Wanda, she may decide that joint custody was not such a great idea after all. Perhaps Harry does not care about getting lots of time with the kids, but he needs to be sure that Wanda understands his perspective on religion and work out a plan that everyone can accept for the kids' religious training. He believes that Wanda is not supportive of his religion because she rarely wanted to go to church with him and the kids. Meanwhile, Wanda is not sure how long she wants to remain in her job. Harry knows he makes a good living but might want to move to another city, or even another state. Or maybe not, depending on how Wanda is handling the religious training.

And then there are the financial issues. Both Wanda and Harry have questions and confusion regarding outstanding debts, accrued pensions, and future earnings, as well as legal entitlements. Wanda feels strongly that she should not have to share her pension but does not truly understand the financial issues. Harry suspects Wanda may be hiding some relevant information and does not trust her documentation. Harry's mother has been pushing him to seek as many days with the kids as possible, but Harry is not sure that would be best given his work schedule. In the real world, even if a computer issues a determination or seemingly helps Harry and Wanda reach a negotiated resolution, that resolution may fall apart when the couple comes to realize their situation was a lot more complicated than they originally thought. Meanwhile, because of the bad feelings between them, Harry and Wanda may have a very difficult time understanding anything the other is saying. They may tend to assume the worst about each other's offers and demands.

In a complex situation like this, human intervention—whether by lawyer, judge, mediator, or friend—could be extremely useful to Harry and Wanda.[187] A human could help them realize their perceptions and memories are not perfect and that there are usually at least two sides to every story. Maybe Wanda will learn things about Harry's alleged affair that decrease her anger. Perhaps Harry will come to understand that Wanda's approach to his religion is not what he had thought and feared. Through good communication and analysis, aided by a human, both Harry and Wanda may start to rethink what they thought they "wanted." Once they gain a better understanding of how joint custody works, and how it might be applied to them and their family, they may revise their priorities. Perhaps one or both parents

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186*. See, e.g.*, Trina Grillo, *The Mediation Alternative: Process Dangers for Women*, 100 YALE L.J. 1545, 1581 (1991) (providing many examples of family mediation that illustrate its complexity and heavy emotional content).

187. It is also true that not all human intervenors will be well qualified to handle these tough issues. Some could even make the situation worse!

will think differently about moving or changing jobs. As the couple works through their various difficult issues and emotions, maybe they will be more forthcoming with one another and come to trust one another more too. Harry may build up the nerve to tell his mother that he does not share all of her goals regarding spending time with the kids. Or maybe before they can resolve any of their issues, Harry or Wanda or both simply need to tell their story to someone who is a good, empathetic listener and feel as if their concerns have been heard.

Of course, none of this is guaranteed. It could be that human interaction will fail and that a successful resolution will elude the couple. Judges sometimes make bad decisions, and attorneys, mediators, and friends are not always effective at helping disputants work out their issues. I only suggest that humans are likely to have the edge at some of these skills, while acknowledging that it will be important to test this assumption.

V. CONCLUSION

My point is not that off–line, human dispute resolution is necessarily better than ODR but, rather, that both can have great value, depending on the nature of the dispute and the psychology relevant to that dispute. While it is often said that ODR is best for simple, low–value, high volume disputes, that is not what a psychological focus necessarily suggests. Disputes that do not involve a lot of money can certainly involve the psychology of perception, memory, changing wants, communication, judgment, and decision making that at least tentatively may not be best for ODR.

We must also remember that the goal is not to make either/or choices between ODR and other forms of dispute resolution. Instead, we should seek to determine when and how to *combine* various approaches. While it will be hard to draw hard and fast lines for when ODR will or will not work in light of the complexities of psychology, the psychological lens is still useful. For example, while we have seen ODR sometimes work well to resolve disputes regarding low–dollar online commercial transactions,[188] even these conflicts may sometimes benefit from a more personal touch. Disgruntled customers or sellers may want to convey that they feel disrespected, factual disparities may be hard to resolve, or algorithms may fail to capture relevant information or make biased calculations. Or, consider a dispute between neighbors involving a barking dog or loud music. While one can imagine an online textual exchange of positions and perspectives might sometimes be useful, it is also easy to see that such an exchange might fail to capture the neighbors' perspectives and goals and ultimately fail to help them adequately consider each other's views. Stock solutions such as curfews could work to solve the noise issue, but perhaps mediated conversations might yield better, more creative ideas. As one begins to consider the potential use of ODR for family disputes or multi–faceted commercial disputes, it is even easier to see that textual exchanges or algorithmic solutions might not be adequate to allow disputants to resolve disputes in a way they find just.

188*. See, e.g.,* Amy J. Schmitz, *Access to Consumer Remedies in the Squeaky Wheel System*, 39 PEPP. L. REV. 279, 320 (2012) (addressing both benefits and burdens of computer mediated communication with respect to consumer online economy and concluding that "the benefits of CMC outweigh its drawbacks for consumers seeking to make wise purchases and access remedies when problems arise.").

In sum, when we think about ODR it is crucial that we focus on the psychology underlying disputes—but this lens does not yield a simple or single recipe for success. Instead, I offer four conclusions:

(1) Those who design ODR should pay substantial attention to the psychology underlying disputes and be conscious that merely using ODR to foster rational exchanges of information will likely not yield ideal dispute resolution. Many empirical studies already show that human psychology is critically important to dispute resolution.

(2) In the short term, my instinct is that humans will often have a comparative advantage over computers or other technology in handling the psychological aspects of disputes. I believe humans are likely to be more skilled than technology at building rapport and trust, as well as helping to persuade people to rethink their strongly held beliefs.

(3) We should all appreciate that technology is evolving quickly and potentially will be able to do things we cannot easily imagine today. As ODR designers work to refine ODR approaches, they should focus on the human and psychological side of disputes. Perhaps holographic mediators will actually be able to build better empathy and rapport than many humans?

(4) Rather than trust our instincts regarding the comparative superiority of humans and technology to handle human psychology, we should test these approaches empirically. I appreciate that even my own instincts on these fronts may be wrong.

In sum, I hope that the cold water I have poured on ODR may ultimately help it flourish where most useful rather than dampen our enthusiasm. By artfully blending technology and psychology, perhaps we can make further progress towards justice.