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Measuring the Perceived (In)accessibility of Courts and Lawyers

Catrina Denvir[1] | Nigel J. Balmer[2] | Pascoe Pleasence[3] | Tenielle Hagland[2]

[1]Department of Business Law & Taxation, Monash Business School, Monash University, Caulfield East, Victoria, Australia | [2]Legal Services Research Centre, Victorian Legal Services Board and Commissioner, Melbourne, Australia | [3]Centre for Empirical Legal Studies, Faculty of Laws, University College London, London, UK

Correspondence: Catrina Denvir (catrina.denvir@monash.edu)

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ABSTRACT

Although the majority of those who face a civil justice problem will not attend court or seek advice from a lawyer, access to courts and legal services is critical to ensuring equal access to justice. This significance is captured in UN Sustainable Development Goal 16.3 and in efforts to measure progress against this goal by reference to the rate at which those with a dispute access formal or informal dispute resolution mechanisms. While the public's attitudes toward courts and lawyers have been implicated as determinants of use, there are no robust standardized scales to measure these attitudes. This study uses modern psychometric methods to develop two scales to measure the Perceived Inaccessibility of Courts (PIC) and of Lawyers (PIL). Drawing on relevant theoretical frameworks, we administered an item pool of 40 attitude questions to a sample of 1846 adults across Australia. Principal component analysis was used to identify attitude domains, followed by Rasch analysis to construct scales with acceptable psychometric properties, and generalized linear modeling to relate scales to experience and explore construct validity. Our substantive findings document the role of first- and second-hand experience of courts and lawyers on attitudes and show the importance of positive experiences and accounts of courts and lawyers in enhancing perceptions of accessibility.

1 | Introduction

1.1 | Background

In 2015, the United Nations published their Sustainable Development Goals (SDGs). Of particular significance for those working in the field of access to justice is Goal 16 which sets out to "Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels." As part of this, Target 16.3 establishes a commitment for countries to work to "Promote the rule of law at the national and international levels and ensure equal access to justice for all" (United Nations 2022a).

Access to civil justice has historically been defined through a "law first" paradigm as "the system by which people may vindicate their rights and/or resolve their disputes under the general auspices of the state" (Garth and Cappelletti 1978, 182). This traditional conceptualization has positioned formal legal processes and services as the primary mechanism for addressing legal needs—those situations where people encounter problems with a legal dimension but lack the capability to address them effectively. More recently, however, consistent with a push toward

informal dispute resolution mechanisms in many jurisdictions, it has been recognized that access to justice is not simply about meeting legal need via more courts and more lawyers. Instead, access to justice has been broadly understood as access to a "just resolution". Here, a "just resolution" is understood as one that observes both "substantive norms that govern the rights, duties and responsibilities of the different parties to a transaction or relationship" and "procedural norms, in which both parties can tell their sides of the story, offer evidence for the story they tell, and have a mediator or decider who is neutral" (Sandefur 2019, 50–51).

This reframing is consistent with the empirical reality. While different jurisdictions exhibit their own features with regards to legal systems, services and the level of met and unmet legal need, research has shown that legal systems and formal legal services, including lawyers, typically play only a peripheral role in the public's experience of justice. Although some jurisdictions are viewed (rightly or wrongly) as more adversarial with a population that is quick to resort to formal processes when compared to others (see, e.g., Galanter 1983, 1998), studies around the world consistently show that most individuals who successfully resolve civil justice problems do so without engaging courts (see, e.g., OECD 2016; OECD/Open Society Foundations 2019; Pleasence and Balmer 2014; Coumarelos et al. 2012; Murayama 2007; Pleasence et al. 2015; Sandefur 2007). Given this, it is appropriate that progress against SDG 16.3 is to be measured, as per SDG Indicator 16.3.3, with reference to the "Proportion of the population who have experienced a dispute in the past two years and who accessed a formal *or* [emphasis added] informal dispute resolution mechanism, by type of mechanism" (United Nations 2022b).

At the same time, capturing the proportion of those who access a formal or informal dispute resolution mechanism offers us only partial insight into the operation of access to justice in a particular jurisdiction. As a proxy for access, measuring uptake is informative, but so too is ensuring that what is being accessed is suitable given an individual's circumstances, their problem, and their legal capability. Resolution mechanisms must be fit for purpose and for person. Despite continued efforts by Governments in several jurisdictions to deter individuals from formal systems,[1] informal mechanisms are not an appropriate alternative for all (see, e.g., Law Reform Commission of Ireland 2010). Of further and critical importance in the context of this study is understanding the factors that drive a lack of uptake. A clear risk in the context of Indicator 16.3.3 is that formal and informal mechanisms may be deemed accessible in the abstract but may fail to be accessible in practice for those who lack the capacity to understand their relevance or to navigate them without legal assistance. To recognize this is to recognize that while the data captured under 16.3.3 provides a starting point for measuring improvements in access to justice, it must necessarily be combined with other indicators that speak to individual legal capability.

Linking closely to Sen's (1999, 2004, 2010) work on capability in respect of disadvantage, legal capability spans a range of narrowly framed capabilities—some general, some specific to law—across a variety of domains. This includes for example, knowledge of law, the ability to spot legal issues, awareness of legal services, understanding of and the ability to assess dispute resolution options, planning and management skills, communication skills, confidence, and emotional fortitude (Balmer et al. 2019; Pleasence and Balmer 2025; Balmer et al. 2023). Legal capability also extends beyond these internal dimensions to include aspects of "external opportunity" and "combined capabilities" (Habbig and Robeyns 2022). This is recognized in the broader literature developing Sen's capability approach (see, e.g., Pleasence and Balmer 2025). Taken at its' broadest, legal capability can therefore be defined as "the freedom and ability to navigate and utilize the legal frameworks which regulate social behavior and to achieve fair resolution of justiciable issues" (Pleasence and Balmer 2025; see also Balmer et al. 2023).

To date, several frameworks have been constructed to expound the core components of legal capability (see, e.g., Garth and Cappelletti 1978; Collard et al. 2011; Pleasence et al. 2014; Habbig and Robeyns 2022), with Pleasence and Balmer (2025) and Balmer et al.'s (2019, 2023) work offering the most contemporary if not the most comprehensive framework to date. It outlines four dimensions of capability—knowledge, skills, attributes, and resources—which vary across the four stages of problem recognition, accessing information and assistance for that problem, resolving the issue, and achieving wider influence and law reform. These four horizontal stages reflect the functional approach set out by Collard et al. (2011), the stages of justiciable problem resolution articulated in a wide body of legal need research, as well mapping to Felstiner et al.'s (1981) delineation of the emergence and transformation of disputes as a process of "naming," "blaming," and "claiming" (Pleasence and Balmer 2025).

To support this, there now exist comprehensive methods and approaches to the collection of data that allow the measurement of dimensions of individual legal capability. This includes question blocks that gather information regarding respondent's knowledge of rights and advice services, and their characterization of problems, as well as scales developed to measure individuals General Legal Confidence (GLC), Legal Self-Efficacy (LEF), and Legal Anxiety (LAX) (OECD/Open Society Foundations 2019; Pleasence and Balmer 2019a, 2019b). As these tools have emerged out of the empirical study of problem resolution related decision-making, focus has more often been directed toward the measurement of internal capabilities, rather than what Nussbaum (2011, 21) refers to as "external opportunities" and "combined capabilities." However, approaches to capturing dimensions of "external capabilities," via the analysis of service accessibility are demonstrated in the work of Patel et al. (2008) and Pleasence et al. (2011). More recently, Pleasence and Balmer's (2018) work in respect of attitudes, and specifically their development of psychometric scales to measure the Inaccessibility of Justice (IOJ) and the Perceived Inequality of Justice (PIJ) have advanced the range of tools available to capture what Nussbaum (2000, 84–85) refers to as "combined capabilities"—internal capabilities that are influenced by external conditions.

Attitudes—"a psychological tendency that is expressed by evaluating a particular entity with some degree of favor or disfavour" (Eagly and Chaiken 1993, 1)—are particularly relevant in the context of Indicator 16.3.3 because they predispose individuals to behave in certain ways (Coaley 2010).

Societal perceptions of legal institutions fundamentally shape problem-resolution behavior, creating self-reinforcing patterns of avoidance. For example, an individual's attitudes toward courts, may lead them to believe the process of claiming or seeking advice or representation is pointless or implausible; an outcome that is problematic where courts are necessary to achieve a just resolution that accords with legal norms (Sandefur 2019). Relatedly, negative attitudes to lawyers may also impact the use of formal and informal dispute resolution mechanisms and the obtainment of access to justice. This may occur where the use of a lawyer is perceived as or is in fact necessary to resolve a problem or to navigate formal or informal dispute resolution mechanisms due to an individual's level of legal capability. Negative attitudes to lawyers in these circumstances may dissuade an individual from taking action to address the problem or lead them to a less satisfactory resolution than might be achieved with the assistance of a lawyer.

Such attitudes also cast wider implications for informal dispute resolution, which is bound by an expectation that it occurs within and not outwith "the shadow of the [formal] law" (Mnookin and Kornhauser 1979, 968).[2] We might expect therefore, that those who hold negative views of courts and lawyers are more vulnerable to informal offers that do not accord with legal norms. In part because they may lack the capability (or the willingness to purchase the capability) to identify such outcomes, but also because without the willingness to pursue a better outcome in court, an individual lacks the means by which to encourage the other side to bargain in good faith.

Meaningful measurement of access to justice thus demands examination of both engagement with and alienation from formal legal processes and services. Yet it remains that whilst there has been some work to date which has attempted to measure attitudes to civil justice broadly and to courts and lawyers specifically, few examples have relied on robust methods of measurement of the quality needed for evidence-based policymaking. In addressing this gap in access to justice methods, this paper sets out the design, development and testing of two new psychometric scales intended to measure the perceived accessibility of courts and lawyers, and reports on findings from the first implementation of these scales within the "Community Perceptions of Law Survey" undertaken in Australia in 2019. It commences by situating the scales within the broader literature measuring attitudes to justice, following which the study's methods and results are set out. The paper concludes by contextualizing the findings with reference to the extant literature and identifying their implications for access to justice policy.

1.2 | Measuring Attitudes to Civil Justice

While the factors that coalesce to form an "attitude" remain the subject of continued debate, Rosenberg and Hovland's (1960) "ABC" theory has provided a conceptual starting point from which many other formulations have emerged. This frames attitudes as a confluence of emotions or feelings (the affective component), behavioral intent (the behavioral component), and beliefs (the cognitive component) (the "ABC" components). These factors share some common ground with alternative theories, such as that of Schwarz and Bohner (2001) who identify attitudes as arising from the product of first-hand and second-hand experience, perceptions of behavior and an individual's physiological responses to the concept being presented. To this, literature in the field of civil justice contributes a variety of more specific dimensions, including satisfaction, confidence, trust, support, and legitimacy (Wilson 2012, 7), general and abstract trust in institutions, experience and interaction with the courts (Akdeniz and Kalem 2020), and interest in or engagement with the justice system (Coaley 2010). Procedural, interpersonal, and informational justice, distributive and restorative justice, as well as broader systemic components such as functionality and transparency are also seen as relevant (Barendrecht et al. 2010; Klaming and Giesen 2008; Verdonschot et al. 2008; Pleasence and Balmer 2018, 2019a, 2019b).

To date, efforts to measure attitudes in relation to courts have suffered several limitations, including focusing on the criminal system to the exclusion of the civil system (Wilson 2012), or conflating criminal and civil courts by referring to courts generally without distinction (Moorhead et al. 2008; Pleasence and Balmer 2018). This latter approach is exemplified in the British Social Attitudes Survey (Pleasence and Balmer 2018), the "State of State Courts" public opinion surveys conducted in the US (NCSC 2022), and various Global Barometer Surveys (Inglehart et al. 2014; World Justice Project 2018, 2019; Adams et al. 2017). It is a problem because as Stratton and Lowe (2005, 5) have observed, "if left to define 'the justice system' for themselves the public do so in terms of criminal justice." This reinforces the likelihood that responses will be skewed to perceptions of criminal rather than civil justice (Pleasence and Balmer 2018).

However, an explicit civil justice focus has been seen in some studies, including a range of civil justice legal needs surveys of which at least 50 have been conducted in 22 separate jurisdictions over the last 25 years. These have included a small number of contextualized attitude questions as well as a broader range of questions regarding the publics' experience of and response to civil justice problems from which attitudes might be inferred (see generally OECD/Open Society Foundations 2019). A focus on civil justice is also exemplified in Cornett and Knowlton's (2020) qualitative study on public trust and confidence in US courts and in quantitative research such as Cunha et al.'s (2014) Brazilian Justice Confidence Index study measuring broad trust in justice in respect of civil matters, and Hans and Lofquist's (1994) work exploring perceptions of the civil justice system crises in the US. Other qualitative research such as Ewick and Silbey's (1998) exploration of perceptions of law and Sandefur's (2007) work on inaction in the face of a civil justice problems have also maintained a focus on civil justice, albeit without directing attention to courts and lawyers specifically.

These studies have employed different approaches to the quantitative measurement of attitudes, with many measures developed in an ad- hoc fashion, with no attempt made to test psychometric properties using either classical test theory or modern psychometric methods. This lack of psychometric methods has hampered the ability to investigate the relationship between problem resolution behavior and attitudes to courts and lawyers, stifled the robust evaluation of initiatives intended to shift attitudes in a more positive direction, and limited theoretical development

in the field (Pleasence and Balmer 2019a). Whilst this has recently been addressed by the work of Pleasence and Balmer who have used psychometric methods to develop scales to measure general legal confidence (2019), and the perceived inaccessibility and inequality of justice (2018), no such equivalent exists to measure the perceived accessibility of courts or lawyers. With measurement "profoundly influenced by minor changes in question wording, question format or question order" (Schwarz and Bohner 2001, 438–442), it remains difficult to navigate inconsistencies across different studies, draw comparisons across jurisdictions, and identify, robustly, the influences upon attitude formation.

1.3 | Public Attitudes to Justice, Courts, and Lawyers

Despite the limits of the existing research as set out above, the empirical data offers some valuable context and points to several emerging patterns that are relevant to the process of scale development. Taken together, it paints a mixed picture in relation to the public's perception of the law and justice system, across different jurisdictions. For example, Ewick and Silbey's (1998) qualitative research has revealed three common views of the law—as "majestic," "a game," or "arbitrary"—in their study in the United States. With "majestic" speaking to the tendency of the law to be removed from the ordinary concerns of citizens, a "game" describing the perception that unfairness occurs when people strategically play the system, and "arbitrariness" implying a lack of consistency, none of these characterizations appear especially positive. This notion of law as arbitrary or capable of being "gamed" is also reflected in Sandefur's (2007) work in which inaction in the face of a civil justice problem is linked to—among other things—a perceived lack of power, fear and frustrated resignation. As well as in Galanter's (1974) work exploring the advantages afforded to "repeat players" of that game in court. Findings from the British Social Survey also reinforce the sense that justice is capricious, game-like, or a battle of resources, with only 30% of respondents agreeing with the statement "I am confident that justice always prevails over injustice" (Curtice et al. 2020). The findings are confirmed by Pleasence and Balmer's (2018) scale development work, where UK respondents were shown to have a baseline score of 58.1 on an Inaccessibility of Justice Scale and 53.0 on an Inequality of Justice Scale (both out of 100).

Perhaps unsurprisingly given the public's tendency to associate courts with the process of seeking justice, the pessimism reported in respect of justice systems in various jurisdictions, is also repeated in respect of courts, though with important jurisdictional variations. In the United States, Fernandez and Husser's North Carolina study found 52.5% of respondents believed fair outcomes occurred only "sometimes," "seldom," or "never" in state courts, with particular concerns about systemic bias and differential treatment based on financial resources (Cornett and Knowlton 2020). Australian data shows similarly low confidence, with most respondents to the 2018 Australian Social Attitudes Survey expressing "some," "very little," or "no" confidence in courts (Evans et al. 2018). Brazilian research identifies specific institutional concerns, including judicial integrity, procedural efficiency, and accessibility (Cunha et al. 2014).

Continuing in the same vein, the existing literature also paints a less than flattering picture of attitudes to lawyers, though a somewhat more positive view of the judiciary. Research from Australia conducted in 2020 for example, found only 26% of respondents willing to agree with the statement that lawyers had "very high" or "high" standards for ethics and honesty, as compared to 66% for High Court Judges and 63% for State Supreme Court Judges (Roy Morgan 2021). Earlier findings from the United States exhibited a similar pattern, with 19% of respondents reporting they were extremely/very confident in lawyers/the legal profession as compared to 33% for judges/the judiciary. Follow-up questions within the same study reinforced this distinction, with respondents viewing lawyers as "greedy, manipulative, and corrupt" a view reinforced by personal experience (Shapiro 2020). Yet Cornett and Knowlton's (2020) recent qualitative work in the United States has documented the existence of a "broad trust" in judges among respondents.

Whilst the overall mood appears to be one of cynicism in respect of the public's perceptions of justice, courts, lawyers, and in some cases judges, the extent of this pessimism appears to vary by respondent characteristics. For example, whilst the level of confidence a respondent expressed in respect of the notion that justice triumphs over injustice in the British Social Attitudes Survey did not vary significantly by age or income level, pessimism increased as education level increased (Curtice et al. 2020). Those who have experienced a civil justice problem have also been shown to view the justice system more negatively than those who have no such experience (Currie 2009). These patterns have been confirmed by Pleasence and Balmer's (2018) work, which showed that perceived inequality of justice was higher among those who experienced a civil justice problem, and higher still among those with a problem who believed they handled their problem poorly or the outcome was unfair. Second-hand experience was also shown to be influential, with exposure to negative accounts of lawyers and courts from friends, family, and colleagues associated with increases in the perceived inequality and inaccessibility of justice (Pleasence and Balmer 2018).

Attitudes to courts have also been shown to correlate with education level, albeit to the opposite effect, with higher levels of education associated with more optimistic views as to the frequency with which state courts are seen to produce fair outcomes, and experience shown to decrease both confidence in courts and the extent to which court outcomes are perceived as fair (Fernandez and Husser 2021; Akdeniz and Kalem 2020; M/A/R/C Research 1998; Jamieson and Hennessy 2007; cf. Kritzer and Voelker 1998). In keeping with Pleasence and Balmer's (2018) study, Olson and Huth (1998) have also shown in respect of courts the way in which perceptions of fairness are especially influential in shaping positive attitudes where an individual has experience.

These findings warrant careful interpretation given the significant institutional and cultural differences across jurisdictions. While common themes emerge—particularly around accessibility, fairness, and institutional legitimacy—the specific institutional, cultural, and social factors shaping these perceptions likely vary. The United States, United Kingdom, and Australia share common law traditions but differ markedly in their legal service delivery models, judicial appointment processes, and

institutional structures. Brazil's hybrid system, incorporating both adversarial and inquisitorial elements, operates within a distinct legal culture yet generates similar patterns of public skepticism. Nevertheless, the persistence of negative attitudes across these varying contexts suggests universal challenges in justice delivery.

This invites some concern given that in democratic societies, the law, justice system, and the privileged position lawyers occupy in relation to these are legitimate expressions of power only insofar as they are perceived as such by the public. Negative perceptions of law, justice systems, courts, and lawyers undermine this legitimacy. They also raise the risk that those acting to resolve a problem will specifically avoid engagement with courts and lawyers, even when it is prejudicial for them to do so.

It is important to make the distinction that simply because the public perceives something to be the case does not mean that this aligns with objective truth, nor does perception dictate action in every instance. As such, it is right that the data collected via Indicator 16.3.3 remains a key point of reference, complemented by data collected under Target 16.7 which is directed at "Ensuring responsive, inclusive, participatory and representative decision-making at all levels" (United Nations 2022b).[3] At the same time, we ought not overlook the influence of attitudes. If "a significant portion of any dispute exists only in the minds of the disputants" (Felstiner et al. 1981, 632), then it is also the case that a significant portion of the options for and likelihood of resolving that dispute also exist in the minds of the disputants. With experience often found to exacerbate negative views, these attitudes are not necessarily divorced from reality, and these second-hand reports may lend legitimacy to perspectives that would otherwise retain a semblance of doubt in the mind of the individual.

The question that emerges then is not "why" we should measure attitudes to courts and lawyers, but "how" to do so without robust tools that can operate consistently across jurisdictions. Building on Pleasence and Balmer (2018) existing scale development work, in this paper, we seek to answer this question, setting out the design, development, and testing of two new psychometric scales intended to measure perceived accessibility of courts and lawyers and reporting on findings from the first implementation of these scales. In doing so, our work supports the development of robust methods to help inform progress in respect of SDG 16.3 and establishes an initial evidence base to advance access to justice policy.

2 | Methods

The development of psychometric scales involves several stages (DeVellis 2012). These stages start with a construct that is difficult to measure directly (in this case attitudes to courts and lawyers) and end with tools that measure constructs in a reliable and valid way. The following section describes three core stages in scale development. First, having established what the scales are intended to measure, an "item pool" of statements is developed, which is designed to capture the construct of interest (Section 2.1). This item pool is then administered to a development sample (Section 2.2) providing responses across items before items are evaluated and resultant scales optimized (Section 2.3).

2.1 | Generation of an Item Pool

As detailed above, the existing literature identifies a range of different components that may inform an individual's attitudes to justice, and aspects of justice such as courts and lawyers specifically. These have included aspects of procedural justice (Klaming and Giesen 2008; Gramatikov et al. 2011), interpersonal justice, informational justice (Colquitt and Conlon 2001), distributive justice, restorative justice, functionality, transparency (Gramatikov et al. 2011) and cost (Bach Commission on Access to Justice 2016). Cutting across these different dimensions are what Wilson refers to as "neutrality" (in terms of procedures and decision making), "treatment" (in terms of respect), "having your say" (i.e., the opportunity for parties to state their case), and "motive-based trust" (i.e., the perceived motives of legal actors) (Wilson 2012).

Given the limited space available within a survey, we constructed an item pool that included a broad and coherent range of aspects of attitudes that were multidimensional, to address the possibility that attitudes reflect distinct domains. The item pool focused on eight distinct theoretical dimensions of attitudes to justice prominent within the literature and past surveys (outcome fairness, neutrality, manipulability, respect, voice, motivation, access/efficiency, sovereignty). Drawing on these different dimensions, the items explored the feelings and beliefs of respondents in relation to using/accessing courts and lawyers. By soliciting the feelings and beliefs of respondents, items reflected both the affective and cognitive components of Rosenberg and Hovland's theory of attitude formation (Rosenberg and Hovland 1960).

The introduction was the same for both court and lawyer items. Respondents were presented with the following (using courts as an example).

> The following questions are about your general **impression and experience of courts in <STATE>**.

> Again, **we are not concerned with crime**. We are concerned with the other types of issues that **courts** deal with, such as: being unfairly sacked by your employer, injured where it was someone else's fault, involved in a dispute over money as part of a divorce, being kicked out of your home, or a serious dispute with a neighbour.
> Thinking about issues like this, to what extent do you agree or disagree that.
> **Courts** in<STATE> are...?

For the accessibility/inaccessibility of lawyers items, "courts" was replaced with "lawyers" above. The initial sentence

acknowledged that only a subset of respondents would have actual experience of courts and lawyers. Additional questions following the scale development items captured this experience. This was important in ensuring there was no differential item functioning based on actual experience (i.e., with items understood differently) and in exploring construct validity (i.e., the degree to which measures are related to external measures of the same construct, similar constructs, and other constructs (Wolfe and Smith 2007)). These are discussed further below. The introduction aimed to restrict attitudes to non-criminal issues, reinforcing this with examples of civil/family problems.

Respondents were then presented with two sets of 40 items designed to capture their views of courts and lawyers, with a mixture of positively framed (e.g., easy to use, approachable) and negatively framed (e.g., inaccessible, intimidating) items.[4] Measurement format took the form of a four-point Likert scale (strongly agree, agree, disagree, strongly disagree).[5] The full item pool can be found in Table 2.[6]

2.2 | Administration to a Developmental Sample

The (in)accessibility of courts/lawyers items were included in the Community Perceptions of Law Survey (Balmer et al. 2019). The survey also asked about respondents' actual use of lawyers and courts, as well as any recalled accounts of courts or lawyers from friends, family, or colleagues. These questions played a key role in exploring construct validity.

The Community Perceptions of Law Survey was integrated into wave 26 of *Life in Australia*, a probability-based online panel (Kaczmirek et al. 2019).[7] Probability-based online panels such as *Life in Australia* emerged in the United States with KnowledgePanel in 1999.[8] They have since gained momentum around the world as means to obtain cost-effective, valid, and generalizable (probability-based) data. Such panels typically result in relatively low cumulative response rates, with ongoing interest in how to improve participation (Bosch et al. 2024). Nonetheless, they still retain significant advantages over non-probability panels (Baker et al. 2010; Callegaro et al. 2014; Yeager et al. 2011), with recent estimates indicating they are around twice as accurate across a range of benchmark variables (Mercer and Lau 2023).

The survey comprised 1846 respondents with a completion rate of 68.7% (i.e., 1846 completed interviews as a percentage of 2687 panel members invited to take part), with most respondents (80.4%) completing the survey online. A cumulative response rate can be calculated by multiplying recruitment rate, profile rate, retention rate, and completion rate (Kaczmirek et al. 2019), arriving at 8.6%. Evidently, nonresponse in probability-based surveys poses threats to data quality; in both reducing precision of estimates and in creating bias where respondents and non-respondents differ on a concept of interest (Bosch et al. 2024). Importantly, however, scale development has very different requirements to an exercise intended to produce population estimates, with the most important consideration being to capture a heterogeneous sample, with a broad range of demographics and perspectives (Boateng et al. 2018; Pleasence and Balmer 2019a), rather than to minimize total survey error (Weisberg 2005). Table 1 sets out the unweighted sample profile compared to the adult population of Australia.[9]

TABLE 1 | Sample profile (unweighted).

	Completed survey (unweighted)	Benchmark
Base (*n*)	1846	26,014,399
Gender/sex		
Male	47.0%	49.6%
Female	52.8%	50.4%
Other	0.4%	—
Age group		
18–24 years	4.6%	11.0%
25–34 years	12.1%	18.4%
35–44 years	15.3%	17.7%
45–54 years	17.2%	16.1%
55–64 years	19.6%	14.9%
65–74 years	20.9%	12.0%
75+ years	10.1%	9.8%
Location (state or territory)		
New South Wales	32.1%	31.4%
Victoria	25.9%	25.6%
Queensland	19.8%	20.3%
South Australia	7.1%	7.1%
Western Australia	10.4%	10.6%
Tasmania	2.1%	2.2%
Northern Territory	1.0%	0.9%
Australian Capital Territory	1.7%	1.8%

Note: The Australian Bureau of Statistics data collected sex, while Life in Australia asked for gender.

All panel members were offered a AU$10 incentive (or charitable donation) for taking part. Three hundred and ninety respondents were randomized to receive the (in)accessibility of courts module and 355 respondents were randomized to receive the (in)accessibility of lawyers module.[10] In both cases, these were more than adequate numbers to conduct psychometric analysis and develop scales (Linacre 1994).

2.3 | Evaluation of Responses and Optimization of Scales

Rasch analysis (e.g., Boone et al. 2014) was used to develop scales measuring perceptions of the inaccessibility of courts and lawyers. For a unidimensional set of items (i.e., measuring a single trait), Rasch analysis can be used to develop and refine a scale. This

TABLE 2 | Responses to the accessibility of courts ($n = 327$) and lawyers ($n = 334$) items.

	Courts in <STATE> are …?				*Lawyers in <STATE> are …?*			
Item	**Strongly agree**	**Agree**	**Disagree**	**Strongly disagree**	**Strongly agree**	**Agree**	**Disagree**	**Strongly disagree**
1. Easy to use	0.7	29.8	57.6	12.0	5.1	51.2	40.9	2.7
2. Places/people with an open door	1.7	43.3	43.8	11.1	3.4	51.6	43.3	1.7
3. Easy to explain things to	2.8	35.3	56.4	5.6	4.7	67.7	26.9	0.8
4. Accessible	2.7	54.8	33.6	8.9	7.1	65.5	22.8	4.6
5. Good for resolving problems	4.5	59.1	30.0	6.5	2.5	71.4	21.8	4.3
6. Efficient	2.8	40.0	42.3	14.9	4.8	53.4	37.0	4.9
7. Difficult to understand	16.0	56.8	24.9	2.2	3.0	42.1	52.5	2.4
8. Expensive	36.7	54.3	7.7	1.3	54.5	43.8	1.7	0.0
9. Difficult to find	0.6	25.7	64.6	9.2	5.1	18.3	68.8	7.7
10. Easy to get to	10.1	59.5	26.3	4.2	5.4	65.2	26.7	2.7
11. Not somewhere I feel confident going/people I feel confident going to	24.0	54.8	19.2	1.9	7.6	40.7	45.9	5.7
12. Complex	21.4	67.9	9.0	1.7	8.8	63.1	24.7	3.5
13. Not something/people I'd be happy to use	21.7	50.5	25.1	2.7	6.5	30.2	59.0	4.2
14. Approachable	5.1	32.2	49.4	13.4	3.9	67.8	25.4	2.8
15. The last place/people I would ever go for help	21.1	35.6	41.1	2.2	8.1	16.2	60.7	15.0
16. Not interested in the issues I face	11.7	42.2	44.5	1.6	7.1	24.8	64.2	3.9
17. Poor value for money	15.6	57.5	22.5	4.5	17.2	38.8	37.2	6.7
18. Welcoming	0.1	30.7	58.5	10.7	2.3	67.0	27.2	3.5
19. Too expensive to use	29.3	56.6	14.0	0.0	32.7	52.1	14.2	1.0
20. Easy to communicate with	4.1	31.3	57.2	7.4	0.6	64.3	32.8	2.2
21. Able to enforce my rights	7.7	60.3	29.3	2.7	4.9	82.8	9.8	2.5
22. Not concerned with real people's lives	13.6	40.7	43.3	2.3	5.5	38.4	53.3	2.7
23. Clear in how they communicate	3.0	32.4	53.9	10.7	2.3	59.9	35.3	2.5
24. Unapproachable	10.5	54.8	34.6	0.0	2.1	20.6	74.1	3.2
25. Not geared up for ordinary people to use	22.8	57.8	19.3	0.2	11.0	42.2	44.2	2.5
26. Out of reach for people like me	18.6	44.0	34.4	3.0	18.7	34.7	42.4	4.2
27. Slow	29.8	61.1	8.4	0.7	6.1	49.7	42.4	1.8
28. Intimidating	25.0	68.0	6.9	0.0	7.3	42.2	46.3	4.2
29. Not worth the hassle	14.5	45.0	38.9	1.6	4.6	32.7	58.2	4.4
30. A mystery	14.5	50.9	33.9	0.7	2.1	36.1	54.3	7.5

(Continues)

TABLE 2 | (Continued)

Item	*Courts in <STATE> are …?*				*Lawyers in <STATE> are …?*			
	Strongly agree	**Agree**	**Disagree**	**Strongly disagree**	**Strongly agree**	**Agree**	**Disagree**	**Strongly disagree**
31. Help people like me get justice	8.2	58.0	30.5	3.3	4.8	73.6	16.4	5.2
32. Use complicated and technical language	27.5	59.4	12.7	0.4	11.7	60.7	25.3	2.2
33. Don't take people like me seriously	6.6	40.8	51.5	1.1	5.6	25.0	65.7	3.7
34. Make a real difference to people's lives	6.2	67.1	24.5	2.2	4.5	69.2	22.4	3.9
35. Take too long to deal with issues	29.3	62.7	7.9	0.1	8.5	55.6	34.9	1.0
36. Resolve issues promptly and efficiently	4.0	25.0	58.2	12.7	2.5	42.0	47.1	8.4
37. Would try to make me feel at ease	0.0	44.7	53.2	2.1	2.7	72.9	20.0	4.4
38. Treat people like me with respect	3.4	63.2	31.8	1.6	4.2	73.4	18.6	3.9
39. Stand up for people like me	1.6	49.5	42.5	6.4	4.9	64.4	26.7	4.0
40. Make a real effort to help people who use them	1.5	53.1	43.4	2.0	5.3	69.2	21.7	3.8

allows a trait that cannot be directly observed to be quantified. Analysis follows the approach in Pleasence and Balmer (2019a) and was conducted using RUMM2030 (Andrich et al. 2016).

The foundation of the Rasch model is that an individual's response to a specific item is based on (a log function of) their characteristics (i.e., an "ability," in this study their views on the inaccessibility of courts and lawyers) and characteristics of the item (i.e., its "difficulty," or level of perceived inaccessibility of courts or lawyers required to endorse it).[11] Equation (1) illustrates the Rasch model.

$$\text{Rasch model: } p_{ni} = \frac{e^{(B_n - D_i)}}{1 + e^{(B_n - D_i)}} \quad (1)$$

where p_{ni} = the probability of affirming (i.e., giving a positive response), for item i and person n, D_i = the difficulty of item i, B_n = the ability of person n.

In the current study, the probability of affirming an item is a logistic function of the difference between an individual's perceived inaccessibility of courts or lawyers and the level of inaccessibility an item expresses. Several key considerations inform Rasch analysis, including fit, discrimination, dependency, dimensionality, and differential item functioning.

Overall fit—the extent to which our responses fitted the Rasch model—was assessed using an item-trait interaction statistic. This is reported in RUMM2030 as a chi-squared statistic and should be non-significant. A significant value indicates a lack of fit, and further exploration of the factors below is used to diagnose the source of any misfit and indicate possible remedial action. Action might include rescoring or rewording items (if practical), or removal of items or respondents (see further Pleasence and Balmer 2019a).

Overall item and person fit were assessed using item-person interaction statistics, with a fit residual value of 1.5 or less (for items and persons) considered to indicate acceptable fit. Individual item and or person fit were also explored. Items of concern were indicated by fit residuals below −2.5 or above 2.5. Values below −2.5 indicate redundancy or overfit, with the item adding little to other items. Values above 2.5 indicate a misfitting item (which might for example, capture a different trait).[12] As with items, misfitting persons (e.g., those failing to engage with the questions) were identified by fit residual values above 2.5. Misfitting persons can result from individuals failing to properly engage in the exercise, which might be indicated by very quick responding (if collected) and/or patterned responses. If either is observed, removing misfitting respondents is a common remedial action.

The ability of a scale to discriminate between individuals with different levels of the trait being measured is captured by the Person separation index (PSI). The higher the PSI (which varies from 0 to 1) the greater the ability to differentiate between people. Values over 0.7 are often considered acceptable, with lower values suggesting that further items may be needed. A well-targeted scale, spanning the full range of individual scores,

also makes it easier to differentiate between individuals. Scale targeting is assessed graphically by plotting individuals' scores and item placement on the underlying trait on the same figure.

Suitability of the response format (in this case a four-point Likert scale) was checked by examination of the threshold map and category probability curves for individual items, which illustrate category structure. When individuals respond in a manner consistent with their level of the trait, thresholds should be ordered (i.e., as level of the trait increases, each response category takes it in turn to have the highest probability of being endorsed). Disordered thresholds could reflect respondents having difficulty differentiating between options.

Responses to individual items should not be dependent upon responses to another. If they are, this response dependence can artificially inflate PSI and affect parameter estimates (Tennant and Conaghan 2007). Values over 0.2 in the residual correlation matrix indicate potential response dependence (Marais and Andrich 2008).

Rasch analysis requires that items form a unidimensional scale, measuring a single trait.[13] Dimensionality can be tested using principal components analysis (PCA) as part of the Rasch analysis (Smith 2002).

Differential item functioning (DIF) occurs when particular groups (e.g., men and women, younger and older respondents, those with specific experiences) perform differently on an item despite having comparable levels of the trait. DIF can be explored graphically by superimposing groups of interest (e.g., men and women) on item characteristic curves to assess whether or not they perform (and understand the item) differently, and statistically using analysis of variance.

Once a final set of items has been decided upon—satisfying the various requirements above—it can be scored. This requires a guide scoring responses and converting these raw scores to Rasch converted scores, which makes them appropriate for a wider range of common statistical analyses. Scale scores can also be converted into strata (Fisher 1992; Linacre 2013; Wright and Masters 2002) with the number of strata possible depending upon PSI (Linacre 2013).

Once scales are constructed and respondents individually scored, a further stage of analysis involves exploring construct validity. This is the degree to which measures are related to external measures of the same construct, similar constructs, and other constructs (Wolfe and Smith 2007). In the current study, this involved fitting normal generalized linear models of perceived inaccessibility of courts and lawyers based on first-hand experience and second-hand accounts of courts and lawyers.

3 | Results

3.1 | Responses to Accessibility of Courts and Lawyers Items

Table 2 sets out responses to the two sets of accessibility items for courts and lawyers.[14]

3.2 | Rasch Analysis

3.2.1 | Initial Model Fit and the Issue of Combining Positively and Negatively Framed Items

Rasch analysis[15] was undertaken on the responses of 327 respondents answering the court items and 334 answering the lawyer items. Initial models using all 40 court and lawyer items yielded highly significant item-trait interaction ($\chi^2_{160} = 252.91$, $p < 0.001$ and $\chi^2_{160} = 304.60$, $p < 0.001$, respectively) indicating significant deviation from the Rasch model. Critically, for both court and lawyer items, in both cases, there was very clear evidence of multidimensionality[16] and a likely cause of the overall model misfit.

For both court and lawyer items, principal components analysis (conducted independently of the Rasch analysis) confirmed multidimensionality, and in both cases, the first two components extracted (explaining the greatest variance) were made up almost entirely of positively or negatively framed items. This indicated that for both courts and lawyers, items should be restricted to solely positively or solely negatively framed items. The latter was chosen, since the principal policy interest was in identifying the extent to which (different groups) view courts and lawyers as inaccessible.[17] Rasch models were refitted using solely the 21 "inaccessibility" of courts and lawyers items.

3.2.2 | Model Fit for Negatively Framed "Inaccessibility" Items

Fitting a Rasch model to 21 (negatively framed) inaccessibility of courts and 21 inaccessibility of lawyers items produced highly significant item-trait interactions ($\chi^2_{84} = 171.06$, $p < 0.001$ and $\chi^2_{84} = 201.84$, $p < 0.001$, respectively[18]). Again, this indicated significant deviation from the Rasch model.

For the courts model, the item fit residual was acceptable (at 1.47), though there was some evidence of misfitting and redundant items. Item thresholds were ordered except for one item. A person fit residual of 1.70 suggested evidence of misfitting persons. A person separation index of 0.91 indicated very good ability to differentiate between levels of the trait. Overall, the scale was well targeted, though there were too many items/thresholds at lower values of the trait, indicating the possibility of redundant items. Again, there was evidence of multidimensionality.[19] For the lawyers model, both item (1.91) and person fit residual exceeded acceptable limits (1.79). Looking at individual items indicated some misfitting and redundant items. Item thresholds were all ordered and a person separation index of 0.90 indicated very good ability to differentiate between those with different levels of perceived inaccessibility. The scale was well targeted, with items spanning individuals' scores well. As for courts, however, there remained evidence of multidimensionality.[20]

3.2.3 | Progressing to Final Scales

For both courts and lawyers items, multidimensionality was addressed by reducing the remaining 21 item pool to a subset with

the highest loadings on the first principal component. For the court model, this left 11 items, before a final misfitting item (fit residual of 2.88[21]) and 10 misfitting individuals[22] were removed. With these items, a non-significant item trait interaction ($\chi^2_{40} = 62.90$, $p = 0.012$[23]) indicated acceptable overall fit to the Rasch model. Both item (fit residual standard deviation = 1.11) and person fit (fit residual standard deviation = 1.49) were acceptable; there was no evidence of misfit for individual items, as illustrated in Table 3.

A person separation index of 0.88 indicated very good internal consistency and ability to discriminate between respondents with differing levels of perceived inaccessibility.[24] The response format functioned well with ordered thresholds, as illustrated by the threshold map in Figure 1.

There was no evidence of non-uniform differential item functioning by gender, age group, or prior court experience, no evidence of uniform differential item functioning based on age group or prior court experience, and only limited differences by gender.[25] There was a very marginal indication of local dependence[26] or multidimensionality, and given the overall fit/performance and good targeting (as illustrated by the person-item threshold distribution in Figure 2) no further remedial action was required.

For the lawyer model, this left 12 items. Examination of item fit showed significant misfit for one item (fit residual of 3.71[27]). Having removed this item, a further two items had negative fit residuals of −3.29 (suggesting redundancy). Having removed one of these items,[28] a non-significant item trait interaction ($\chi^2_{40} = 59.67$, $p = 0.023$[29]) indicated acceptable overall fit to the Rasch model. Both item (fit residual standard deviation = 1.20) and person fit (fit residual standard deviation = 1.44) were acceptable as was individual item's fit as illustrated in Table 4.

A person separation index of 0.86 indicated the ability to discriminate between differing levels of perceived inaccessibility,[30] and the response format was well understood with ordered thresholds for all items, as illustrated by the threshold map in Figure 3.

There was no evidence of non-uniform differential item functioning by gender, age group, or prior experience with lawyers, no

TABLE 3 | Fit of the final 10 inaccessibility of courts items to the Rasch model.

Item	Location	SE	Fit residual	DF	χ^2	DF	*p*
Are not somewhere I feel confident going	−0.743	0.11	−0.151	285.1	7.002	4	0.136
Are not something I'd be happy to use	−0.301	0.106	−0.791	285.1	12.686	4	0.013
Are the last place I would ever go for help	0.441	0.104	0.295	285.1	2.874	4	0.579
Are not interested in the issues I face	0.214	0.114	−0.789	285.1	3.136	4	0.535
Are not concerned with real people's lives	0.433	0.105	−0.941	285.1	0.484	4	0.975
Are unapproachable	−1.559	0.119	−0.57	285.1	6.76	4	0.149
Are out of reach for people like me	0.367	0.102	−1.46	285.1	4.968	4	0.291
Are not worth the hassle	0.26	0.108	−1.56	285.1	4.36	4	0.359
Are a mystery	−0.044	0.105	2.328	285.1	8.788	4	0.067
Don't take people like me seriously	0.933	0.118	−0.222	285.1	11.844	4	0.019

Note: All fit residual values greater than −2.5 and less than 2.5. All *p* values above the Bonferroni adjusted (for 10 items and a probability base of 0.01) value of 0.001.

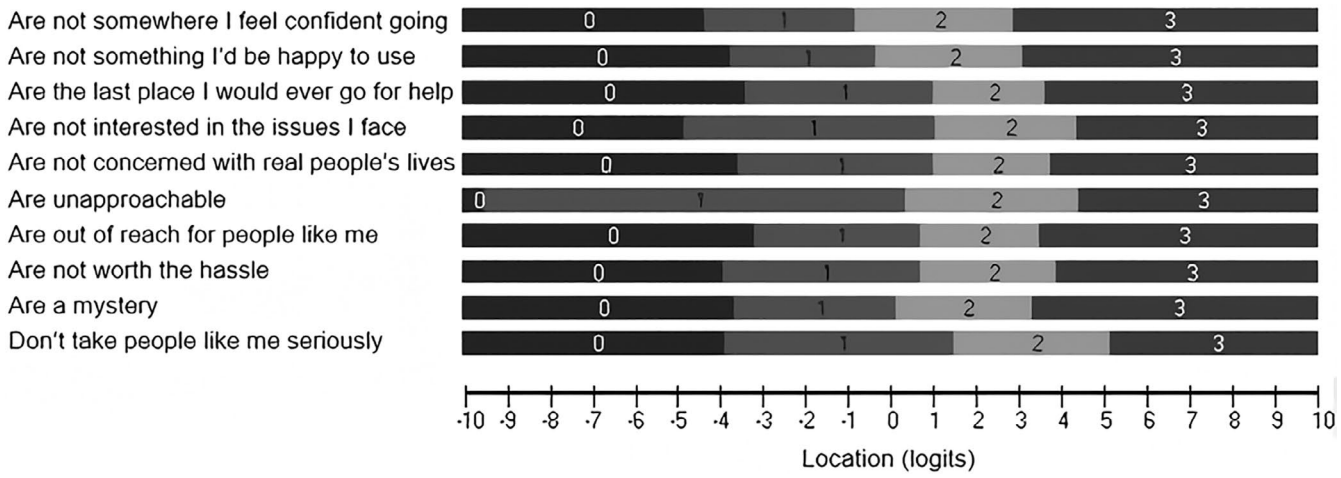

FIGURE 1 | Threshold map for all 10 items in the final Perceived Inaccessibility of Courts (PIC) Scale.

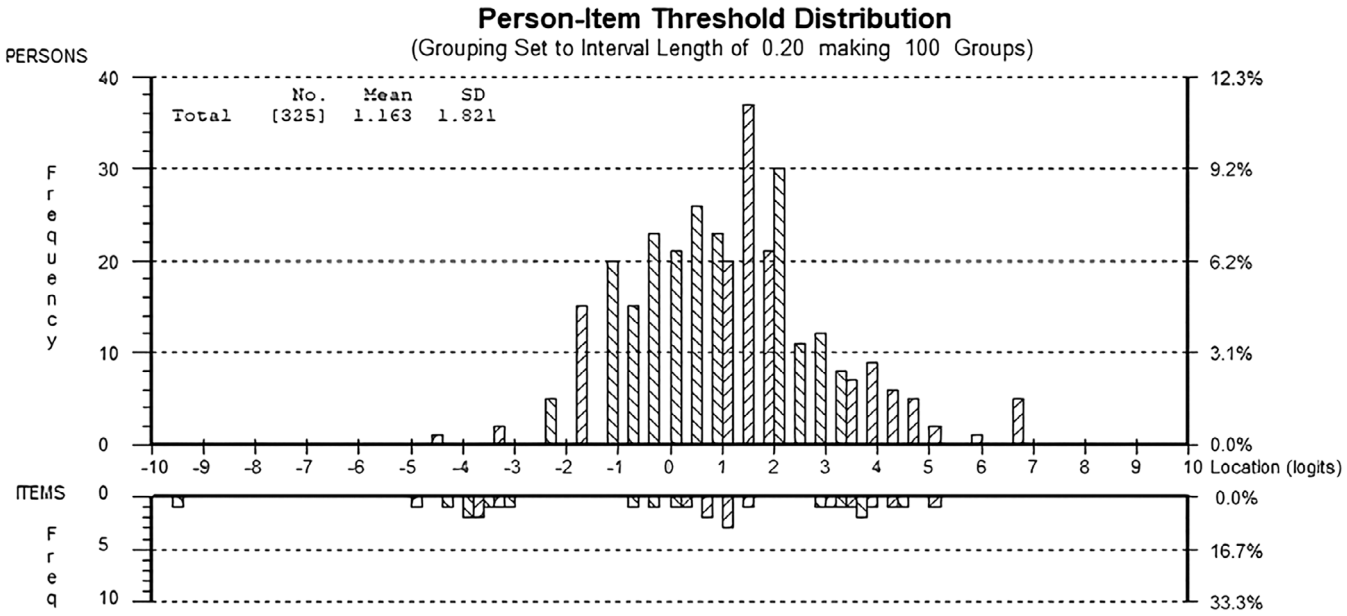

FIGURE 2 | Person-item threshold distribution for the PIC Scale (showing how individual's scores and items relate).

TABLE 4 | Fit of the final 10 inaccessibility of lawyers items to the Rasch model.

Item	Location	SE	Fit residual	DF	χ^2	DF	*p*
Are not people I'd be happy to use	0.206	0.104	−0.164	301.3	0.882	4	0.927
Are the last people I would ever go to for help	0.786	0.094	0.634	301.3	12.323	4	0.015
Are not interested in the issues I face	0.404	0.113	−1.687	301.3	4.205	4	0.379
Are not concerned with real people's lives	−0.185	0.111	−3.21	301.3	9.022	4	0.061
Are unapproachable	0.893	0.127	−1.058	301.3	3.134	4	0.536
Are not geared up for ordinary people to use	−0.765	0.102	−1.952	301.3	8.767	4	0.067
Are slow	−0.781	0.105	0.186	301.3	2.237	4	0.692
Are not worth the hassle	0.125	0.107	−1.961	301.3	8.838	4	0.065
Don't take people like me seriously	0.474	0.113	−0.201	301.3	5.805	4	0.214
Take too long to deal with issues	−1.158	0.11	−0.357	301.3	4.451	4	0.348

Note: All fit residual values greater than −2.5 and less than 2.5. All *p* values above the Bonferroni adjusted (for 10 items and a probability base of 0.01) value of 0.001.

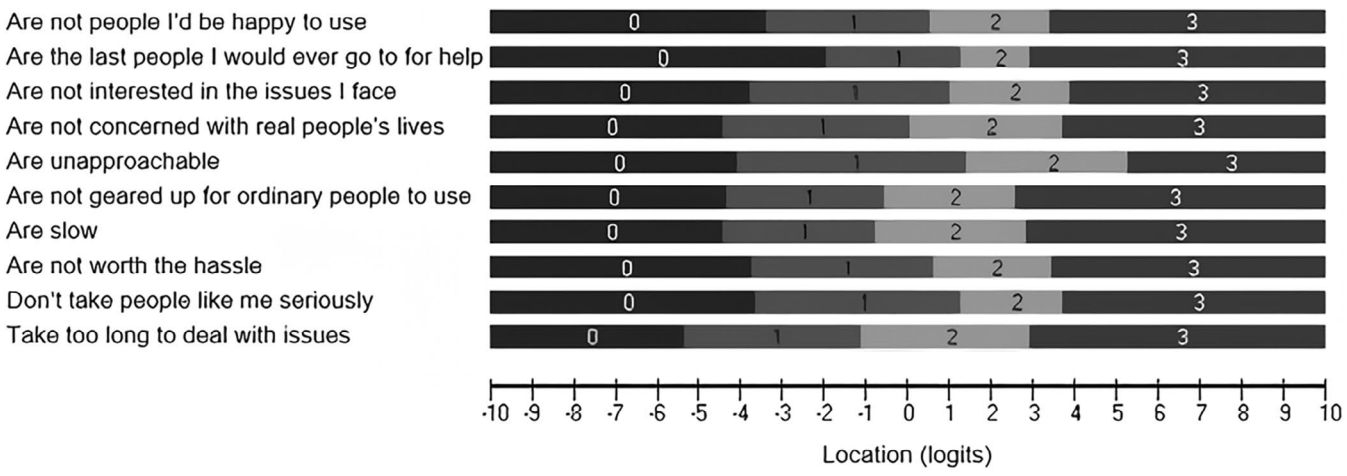

FIGURE 3 | Threshold map for all 10 items in the final Perceived Inaccessibility of Lawyers (PIL) Scale.

evidence of uniform differential item functioning based on gender or experience with lawyers, and only limited differences by age group for a single item.[31] There remained some minor local dependence[32] and weak multidimensionality, though further remedial actions were not merited given good overall fit and model performance, and a well targeted scale as shown in Figure 4.

3.2.4 | Final Perceived Inaccessibility of Courts and Perceived Inaccessibility of Lawyers Scales

The final 10-item Perceived Inaccessibility of Courts (PIC) and Perceived Inaccessibility of Lawyers (PIL) scales are illustrated in Figures 5 and 6.

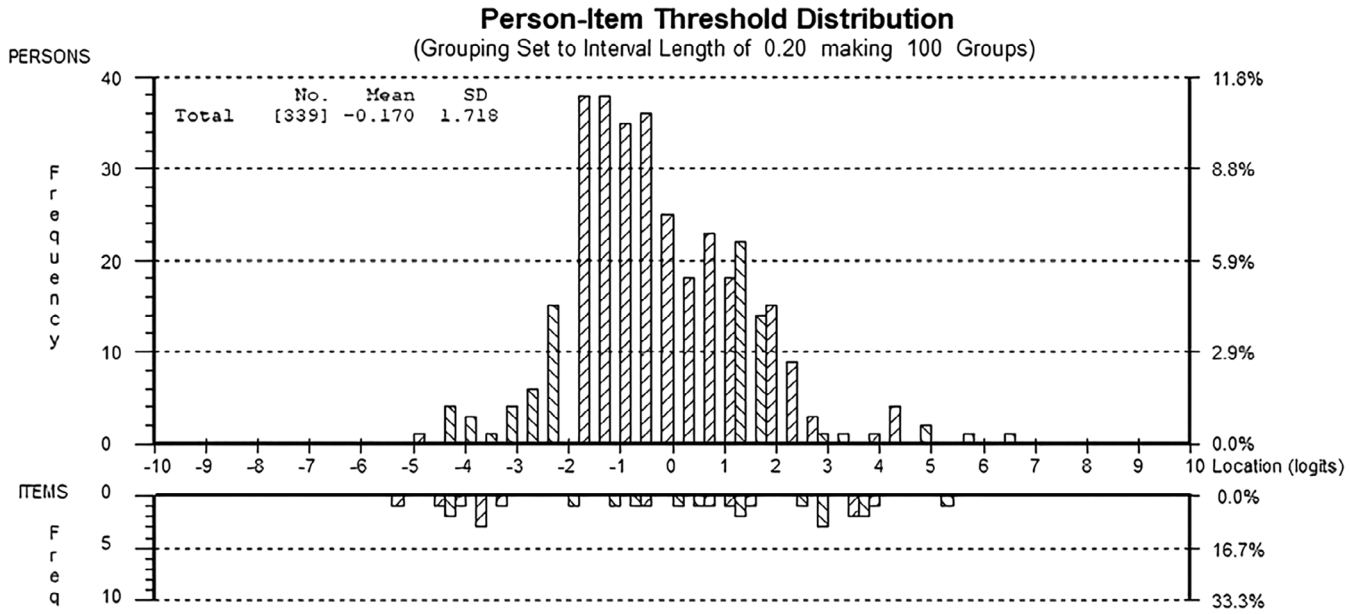

FIGURE 4 | Person-item threshold distribution for the PIL Scale (showing how individuals' scores and items relate).

The following questions are about your general **impression and experience of courts in <STATE>**.

We are not concerned with crime. We are concerned with the other types of issues that **courts** deal with, such as: being unfairly sacked by your employer, injured where it was someone else's fault, involved in a dispute over money as part of a divorce, being kicked out of your home, or a serious dispute with a neighbor.

Thinking about issues like this, to what extent do you agree or disagree that

Courts in <STATE> …?

Are not somewhere I feel confident going
Are not something I'd be happy to use
Are the last place I would ever go for help
Are not interested in the issues I face
Are not concerned with real people's lives
Are unapproachable
Are out of reach for people like me
Are not worth the hassle
Are a mystery
Don't take people like me seriously

Response options – strongly agree, agree, disagree, strongly disagree

FIGURE 5 | The Perceived Inaccessibility of Courts (PIC) Scale.

The following questions are about your general **impression and experience of lawyers in <STATE>**.

We are not concerned with crime. We are concerned with the other types of issues that **lawyers** deal with, such as: being unfairly sacked by your employer, injured where it was someone else's fault, involved in a dispute over money as part of a divorce, being kicked out of your home, or a serious dispute with a neighbor.

Thinking about issues like this, to what extent do you agree or disagree that

Lawyers in <STATE> …?

Are not people I'd be happy to use
Are the last people I would ever go to for help
Are not interested in the issues I face
Are not concerned with real people's lives
Are unapproachable
Are not geared up for ordinary people to use
Are slow
Are not worth the hassle
Don't take people like me seriously
Take too long to deal with issues

Response options – strongly agree, agree, disagree, strongly disagree

FIGURE 6 | The Perceived Inaccessibility of Lawyers (PIL) Scale.

The two scales shared several items, with seven of the 10 items common to both scales.[33] Scales are scored by assigning a score of zero to strongly disagree, one to disagree, two to agree, and three to strongly agree to produce an overall score from zero to thirty. These raw scores are converted to an interval scale (Wright and Linacre 1989) as shown in Table 5.[34] In both cases, higher scores indicate greater perceived inaccessibility.

3.3 | Modelling PIC and PIL

The mean score on the PIC Scale was 67.5 (standard deviation = 11.8), with a minimum of 32.6 and a maximum of 100. The mean score on the PILs Scale was 50.1 (standard deviation = 12.5), with a minimum of 15.5 and a maximum of 100.

PIC and PIL scores were modeled based on previous court and lawyer experience, as well as second-hand accounts of courts and lawyers from friends, family, or colleagues (Table 6).[35]

3.3.1 | PIC Scores, First-Hand Experience and Second-Hand Accounts of Courts and Lawyers

Compared to those without first-hand court experience, those who had attended court and felt the process had been fair saw courts as significantly more accessible (a decrease of 5.5 in PIC scores, testing the model term, $\chi^2_1 = 12.48, p < 0.001$). Conversely, and again compared to those without first-hand court experience, those who had attended court and felt the process had been unfair saw the courts as less accessible (an increase of 3.0 in PIC scores), though the difference fell short of statistical significance ($\chi^2_1 = 1.19, p = 0.28$).

There was also a relationship between having used lawyers and perception of court accessibility. Compared to those who had not used lawyers, those who had used lawyers and been satisfied with the help received saw courts as significantly more accessible (a decrease of 2.7 in PIC scores, $\chi^2_1 = 4.38$, $p = 0.037$).

In addition to personal experience with courts and lawyers, second-hand accounts of courts from friends, family, or colleagues were both related to PIC scores—with differences larger than those associated with first-hand positive experience. Compared to those who did not recall accounts of courts, negative accounts were associated with a significant decrease in perceived accessibility (an increase of 3.8 in PIC scores, $\chi^2_1 = 6.24$, $p = 0.012$) while positive accounts were associated with a particularly large and significant increase in perceived accessibility (a decrease of 6.9 in PIC scores, $\chi^2_1 = 8.16$, $p = 0.004$). Where respondents could recall both positive and negative accounts of courts, perceived accessibility of courts was broadly comparable to respondents who did not recall any accounts of courts ($\chi^2_1 = 0.14$, $p = 0.71$).

Interestingly, accounts of lawyers from friends, family or colleagues were also related to respondents PIC scores, with differences larger than those associated with first-hand experience of lawyers. Compared to those who did not recall accounts, positive and mixed accounts of lawyers were both related to

TABLE 5 | Scoring for the Perceived Inaccessibility of Courts (PIC) and Perceived Inaccessibility of Lawyers (PIL) scales.

Raw score	PIC score	PIL score	Raw score	PIC score	PIL score
0	0	0	16	64.5	56.4
1	17.3	6.7	17	66.5	58.9
2	25.6	11.7	18	68.5	61.3
3	29.6	15.5	19	70.6	63.7
4	32.6	18.7	20	72.6	66.0
5	35.2	21.7	21	74.7	68.3
6	37.7	24.6	22	76.7	70.6
7	40.1	27.7	23	78.8	72.9
8	42.7	30.9	24	80.8	75.3
9	45.6	34.4	25	82.9	77.9
10	49.0	38.1	26	85.2	80.6
11	52.4	41.7	27	87.6	83.7
12	55.3	45.0	28	90.6	87.5
13	58.0	48.2	29	94.6	92.8
14	60.3	51.1	30	100	100
15	62.4	53.8			

increased perceived accessibility of courts (decreases of 3.8 ($\chi^2_1 = 3.33$, $p = 0.068$) and 5.0 ($\chi^2_1 = 5.63$, $p = 0.018$) in PIC scores, respectively). Conversely, negative accounts were associated with a small decrease in perceived accessibility (an increase of 2.4 in PIC scores), although the difference between fell short of statistical significance ($\chi^2_1 = 2.21$, $p = 0.14$). The difference in inaccessibility score between "negative accounts only" and "positive accounts only" or "both positive and negative accounts" were both statistically significant (absolute differences in PIC scores of 6.2 ($\chi^2_1 = 7.95$, $p = 0.005$) and 7.4 ($\chi^2_1 = 12.50$, $p < 0.001$), respectively).

3.3.2 | PIL Scores, First-Hand Experience and Second-Hand Accounts of Courts and Lawyers

Compared to those who had not used a lawyer, those who had used a lawyer but been dissatisfied with help saw lawyers as significantly less accessible (an increase of 7.0 in PIL scores, $\chi^2_1 = 6.10$, $p = 0.014$). In contrast, having used a lawyer and been satisfied with the help received was associated with a statistically significant but somewhat smaller change (a decrease of 3.1 in PIL scores, $\chi^2_1 = 4.75$, $p = 0.029$).

There was also a relationship between having experienced courts and perception of lawyer accessibility. Compared to those who had not experienced court, those who had been to court and judged the process to be unfair saw lawyers as

TABLE 6 | Normal generalized linear models of Perceived Inaccessibility of Courts and Lawyers modeled on the basis of first-hand experience and second-hand accounts of courts and lawyers.

		PIC			PIL		
Variable	**Level**	**Est.**	**SE**	***p***	**Est.**	**SE**	***p***
Court in past 5 years	No	0.00	—		0.00	—	
	Yes and fair	−5.46	1.54	< 0.001	−2.03	1.83	0.269
	Yes and unfair	2.97	2.73	0.276	7.57	2.94	0.010
Lawyer in past 5 years	No	0.00	—		0.00	—	
	Yes, satisfied	−2.68	1.28	0.036	−3.11	1.43	0.029
	Yes, dissatisfied	−1.07	2.43	0.659	7.00	2.83	0.014
Accounts of courts	None	0.00	—		0.00	—	
	Positive only	−6.93	2.43	0.004	−1.29	2.79	0.643
	Negative only	3.80	1.52	0.012	1.18	1.94	0.544
	Both	0.96	2.58	0.711	1.61	3.23	0.618
Accounts of lawyers	None	0.00	—		0.00	—	
	Positive only	−3.78	2.07	0.068	−5.90	2.05	0.004
	Negative only	2.40	1.62	0.137	4.87	1.96	0.013
	Both	−4.96	2.09	0.018	−4.85	2.37	0.040
Constant		67.57	0.83	< 0.001	50.34	1.00	< 0.001

Note: PIC: $n = 337$, Log likelihood = −1239.89, AIC = 7.42, BIC = 29068.24, PIL: $n = 342$, Log likelihood = −1317.02, AIC = 7.77, BIC = 42370.75.

significantly less accessible (an increase of 7.6 in PIL scores, $\chi^2_1 = 6.65$, $p = 0.010$).

In addition, accounts of lawyers from friends, family, or colleagues were related to PIL scores, with differences comparable to those associated with first-hand experience. Compared to those who did not recall accounts of lawyers, mixed accounts (both positive and negative) and particularly solely positive accounts were associated with significantly increased perceived accessibility of lawyers (decreases of 4.8 ($\chi^2_1 = 4.20$, $p = 0.040$) and 5.9 ($\chi^2_1 = 8.27$, $p = 0.004$) in PIL scores). In contrast, negative accounts were associated with a significant decrease in perceived accessibility (an increase of 4.9 in PIL scores, $\chi^2_1 = 6.20$, $p = 0.013$). There was little evidence of an association between accounts of courts from friends, family, or colleagues and perceived accessibility of lawyers.

4 | Discussion

4.1 | Summary of Findings

From an initial item pool of 40, two scales were produced consisting of 10 items each, designed to measure the perceived inaccessibility of courts and the perceived inaccessibility of lawyers. A mean score of 67.5 on the inaccessibility of courts was observed within the development sample, higher than the mean of 50.1 observed with respect to the inaccessibility of lawyers.

To explore the extent to which experience influenced PIC and PIL scores, two normal generalized linear models were used to predict PIC and PIL scores based on first-hand experience and second-hand accounts of courts and lawyers. For both PIC and PIL scales, the relationships with experience of/accounts of courts and experience of/accounts of lawyers respectively provided evidence of construct validity.

Findings revealed that as compared to those without first-hand court experience, those who had attended court and felt the process had been fair had lower PIC scores, while those who had attended court and felt the process had been unfair had higher PIC scores (though this specific result did not reach statistical significance). Further, negative second-hand accounts of courts increased PIC, whilst positive second-hand accounts lowered it (when compared to those who did not recall accounts). Exposure to mixed second-hand accounts was comparable to those who did not recall accounts.

First- and second-hand experience of lawyers was also associated with changes in PIC score when compared to those who did not have experience or did not recall it. Compared to those who had not used lawyers, those who had used lawyers and been satisfied with the help received had lower PIC scores. Similarly, compared to those who did not recall accounts, positive and mixed second-hand accounts of lawyers were both related to decreased PIC scores, and negative accounts were associated with higher PIC scores.

As it related to PIL, compared to those who had not used a lawyer, those who had used a lawyer, but been dissatisfied had increased PIL scores. In contrast, having used a lawyer and been satisfied with the help received was associated with decreased PIL scores. Compared to those who did not recall accounts of lawyers, positive and mixed second-hand accounts were associated with decreased PIL scores, while negative second-hand accounts were associated with an increase in PIL.

Further, compared to those who had not experienced court, those who had been to court and judged the process to be unfair had increased PIL scores. However, there was little evidence of an association between accounts of courts from friends, family, or colleagues and perceived accessibility of lawyers.

Interestingly, as set out above, there was evidence of a relationship between PIC and experience of and accounts of lawyers and PIL and experience of courts. These relationships were not as strong as those between experience of and perceptions of courts and experience of and perceptions of lawyers, but did reach statistical significance. They point to the potential for experience of (or accounts of) one element of the justice system to relate to perceptions of another area as part of a broader perception of justice. While we are unable to directly test this, given that respondents were randomized into court or lawyer items (due to questionnaire length constraints), future research should directly contrast PIC and PIL, which is now far more viable since scales are developed and full item pools would be unnecessary. We would hypothesize based on our modeling that the scales would be correlated but tap into two distinct domains, in part since Rasch is highly sensitive to multidimensionality.[36]

4.2 | Policy Implications

In this study, we generated an accessibility of courts and of lawyers item pool made up of 40 items and administered this to a pilot cohort. Rasch analysis was used to evaluate the items and optimize scale length for each of the two scales. Reduction of the items to a final set of 10 resulted in two scales with good psychometric properties—the PIC scale and the PIL scale. These scales showed good overall fit, item fit, person fit, targeting (not too easy or difficult) and internal consistency (ability to discriminate between individuals). All items had ordered thresholds (respondents were able to differentiate between the four Likert descriptors); there was no response dependence; items were unidimensional, and there was no evidence of differential item functioning (based on gender, age, problem experience or experience with courts or lawyers).

Of the 10 items that made up the final PIC and PIL scales, we see components that touch upon notions of confidence, efficiency, and voice. These reflect some of the themes emerging in the literature, including aspects of the law as "majesterial" (Ewick and Silbey 1998) and courts as benefitting repeat players (Galanter 1974), as well as that of speed and ease of resolution (Cunha et al. 2014). Importantly, although these scales reflect different theoretical strands within the existing literature, they achieve conceptual convergence within both scales.

The baseline mean of 67.5 on the PIC scale suggests a general perception that courts are not accessible. Whilst this has the potential to reduce the burden on the court system, caution must be had in finding a balance between encouraging informal

dispute resolution and ensuring that courts are available to those who need them. As has been said previously, the threat of going to court facilitates informal dispute resolution by bringing otherwise recalcitrant participants to the negotiating table (Genn 2009). If one party to a dispute sees formal resolution or advice as inaccessible, then they are more vulnerable to offers that do not accord with legal norms. A balance has to be struck therefore between dissuading those with meritless claims from pursuing court action and positioning courts as so divorced from the concerns of ordinary people that they stop being viewed as serving the public.

The view that courts and/or lawyers are inaccessible is also likely to have adverse outcomes in instances where an individual is a respondent to a court action rather than the initiator of it. We might expect in these instances that an individual who exhibits a higher PIC and PIL score will be less likely to seek advice from a lawyer, more reticent or anxious to engage with the court's processes, and more suspicious of the fairness of the outcome. Nevertheless, more research is needed to explore the relationship between the attitudes held by individuals and the actions they take in response to a civil justice problem, as well as to explore the relationship between attitudes and other dimensions of legal capability.

In common with other studies, first-hand experience was highly influential (Fernandez and Husser 2021; Akdeniz and Kalem 2020; M/A/R/C Research 1998; Jamieson and Hennessy 2007). Findings also demonstrate that the effect of a negative experience ripples beyond the immediate individual to influence an individual's social network, pointing to the relevance of relations and beliefs about others' experiences of the law in the formation of attitudes (see, e.g., Young's 2014 work on relational and "second-order" legal consciousness). For those without first-hand experience of courts and lawyers, negative accounts of second-hand experience decreased perceptions of the accessibility of both, aligning with Pleasence and Balmer's (2018) findings in respect of the perceived inaccessibility of justice and perceived inefficiency of justice.

In developing robust scales for the measurement of attitudes to courts and lawyers, this study provides a means by which to gather additional information capable of bringing greater context to the findings gathered via indicator 16.3.3, particularly where low levels of access relative to need are observed. More generally, the findings from this study reinforce the fact that more needs to be done to promote the actual and perceived accessibility of courts, at least within the jurisdiction in Australia chosen for this implementation. This may involve the expansion of court navigator schemes, the introduction or widening of different forms of courts as exemplified by the Koori Court and the Drug and Alcohol Court operating in the criminal justice sphere, or the adoption of new forms of court-led, binding mediation, as illustrated by Court Based Family Mediation operating in the Australian Federal Circuit and Family Court. It may also involve new pricing mechanisms in legal services, the expansion of legal aid, or new court rules for managing self-represented litigants. Equally, it may not involve any such approaches if, in evaluating these interventions, the perceptions of the inaccessibility of courts and/or lawyers held by users do not improve. It is here where these scales offer important practical utility by providing a means by which to monitor and evaluate the efficacy of different interventions.

5 | Conclusion

While several studies have attempted to measure attitudes to courts and lawyers, including the development of composite measures incorporating attitudes, apart from Pleasence and Balmer's (2018, 2019a) recent work, psychometric measures have been absent from the field. Given the potential of these tools to inform the literature on attitude construction and to offer a means by which to enable reliable cross-population and cross-jurisdictional comparisons in a way that supports measurement against SGD 16.3, standardized measures of single attitude dimensions are of clear value. Moreover, the development of these scales—as a necessary first step in collecting data that measures attitudes—is capable of better illuminating the relationship between attitudes and legal problem resolution behaviors.

The present study advances this progress through developing reflective instruments to measure attitudes toward courts and lawyers. These scales were designed to capture fundamental dimensions of attitudes toward legal institutions that transcend specific jurisdictional arrangements, though initial validation was conducted in Australia. The findings from this validation—suggesting courts are generally seen as inaccessible while lawyers face fewer perceived accessibility barriers—illustrate the scales' capacity to differentiate between attitudes toward distinct components of the justice system.

The scales' design anticipates their application across jurisdictions with varying institutional arrangements, from civil law systems with inquisitorial judges to common law systems with predominantly private legal service markets. This universal applicability is foundational to their utility—while the attitudes they measure may manifest differently across legal systems, the underlying psychometric properties of the scales should remain stable. This consistency enables robust cross-jurisdictional comparison while accommodating institutional variation.

Future validation studies across multiple jurisdictions will strengthen understanding of the scales' psychometric properties in different contexts. More importantly, applying these consistent measures across varied legal systems will illuminate how different institutional arrangements influence fundamental attitudes toward legal institutions. This comparative potential is particularly valuable given the need to understand how different approaches to justice system design and legal service delivery shape public perceptions and, ultimately, the response of individuals to legal problems.

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Data Availability Statement

Data necessary to replicate the results of this article are available upon request from the corresponding author.

Endnotes

[1] For a discussion on this shift in the context of England and Wales, see, for example, Genn (2012, 1993). This is also exemplified in the creation of the National Alternative Dispute Resolution Council in Australia (see, e.g., NADRAC 2009), as well as the introduction of court pre-action protocols in several jurisdictions including the USA, Canada, Australia, and the United Kingdom, which require participation in informal dispute resolution processes prior to gaining access to court.

[2] As Genn also notes, "Authoritative judicial determination has a critical public function in common-law systems, creating the framework or the 'shadow' in which the settlement of disputes can be achieved. That it is underpinned by the coercive power of the state provides the background threat that brings unwilling litigants to the negotiating table and makes it possible for weaker parties to enforce their rights and to expose wrongdoing" (Genn 2012, 398). And further "While the reality is that most cases settle, a flow of adjudicated cases is necessary to provide guidance on the law and, most importantly, to create the credible threat of litigation if settlement is not achieved" (Genn 2009, 31).

[3] Specifically indicator 16.7.1 which measures the representativeness of public institutions by reference to the demographic characteristics of those employed within them, and 16.7.2, which measures the proportion of the population who believe decision-making is inclusive and responsive, by sex, age, disability, and population group (United Nations 2022b).

[4] Negatively worded items are written in the opposite direction of the dominant pole of the construct of interest (Dalal and Carter 2015). A common rationale for including both positively and negatively worded items is to reduce bias stemming from response styles see, for example, Schriesheim and Eisenbach (1995). A mixed item scale may also create a perception of a fair and balanced measure, with solely positive or negative items leading to an (incorrect) assumption of a biased scale designed to reflect court or lawyers in a particular light. However, mixing positively and negatively worded items can introduce a factor upon which only negatively worded items load, increase systematic or random error in response, change validity conclusions, or measure distinct constructs (Dalal and Carter 2015).

[5] Important to note is the absence of a middle or "neutral" category, the inclusion of which has been shown to produce construct-irrelevant variance (Wolfe and Smith 2007) and distort data to the point to which it is not possible to construct meaningful measures (Bradley et al. 2015; Nemoto and Beglar 2014).

[6] The pool takes a broad approach to the concept of accessibility, in keeping with guidance (Boateng et al. 2018) that items should be broader and more comprehensive than your own theoretical view of the concept. Items that may not perfectly fit the domain can be included, since subsequent analysis will eliminate undesirable items. More generally, 40 items represent a sizeable item pool, exceeding the guidance that the number of items should be at least twice as long as the desired scale (Kline 1993; Schinka et al. 2012). Subject to acceptable psychometric properties, the aim would be to derive scales made up of fewer than 20 items to minimize respondent burden and maximize utility in real-world settings.

[7] Panel members are Australian residents aged 18 years and over, who are contactable (and were recruited) via mobile or landline phone. Initial recruitment used dual-frame random digit dialing, with a 30:70 split between landlines and mobile phones. Respondents can complete the survey online or over the phone—a common option in professional probability-based "online" panels (Callegaro et al. 2014, 150).

[8] https://www.ipsos.com/en-us/solutions/public-affairs/knowledgepanel.

[9] Australian Bureau of Statistics, 31010do002_202403 National, state and territory population, March, 2024.

[10] While it would have been interesting to contrast responses to "courts" and "lawyers" items, time constraints meant it was not possible to present respondents with both item pools. Nonetheless, this remains an interesting avenue for future research.

[11] Psychometric properties are at the item, rather than the test level. Rasch analysis assumptions are that: (a) each person is characterized by an ability, and (b) each item by a difficulty that (c) can be expressed by numbers along one line. Finally, (d) from the difference between the numbers (and nothing else), the probability of observing any particular scored response can be computed (Bond and Fox 2015).

[12] Misfit is more troublesome than overfit. While redundancy indicates some inefficiency it does not have the potential to invalidate measurement in the same way as significant misfit.

[13] There are alternative modeling approaches for multidimensional data, such as those described in Allen and Wilson (2006).

[14] Note that items 2, 11, 13, and 15 require slightly different formulation for courts and lawyers.

[15] Partial credit models implemented since neither the court nor lawyer accessibility items met the requirements of a rating scale model.

[16] For court items, using the method set out in Smith (2002), comparing person estimates between two subsets of items derived using PCA showed 72 of 334 (21.6%) with significantly different scores on the two sets of items. Since this clearly exceeds 5% we would conclude that there was evidence of multidimensionality. Similarly for lawyer items there were 95 of 327 (29.1%) with significantly different scores on the two sets of items.

[17] Scales with good psychometric properties could also be constructed with positively framed items. Initial investigation indicated broadly comparable fit and PSI, though somewhat less well targeted scales.

[18] Which in both cases is less than the Bonferroni corrected p value of 0.00125 (0.05/40 on account of the 40 items in the scale).

[19] Comparing person estimates between two subsets of items derived using PCA showed 43 of 333 (12.9%) with significantly different scores on the two sets of items (i.e., evidence of multidimensionality).

[20] Comparing person estimates between two subsets of items derived using PCA showed 42 of 339 (12.4%) with significantly different scores on the two sets of items (i.e., evidence of multidimensionality).

[21] The item was courts in <STATE> "are difficult to find."

[22] Whose response patterns were patterned in a way which indicated that they may not have properly engaged with the survey (an example might be a response repeating 0, 1, 0, 1, 0, 1 etc. across items).

[23] Which is greater than the Bonferroni corrected p value of 0.005 (0.05/10 on account of the 10 items in the scale).

[24] A PSI of 0.88 allows scores to be split into up to four strata (Linacre 2013).

[25] Male respondents were somewhat less likely to endorse the "courts are unapproachable" item than female respondents.

[26] Some evidence of a relationship between courts being "complex" and "not something I'd be happy to use," though the residual correlation only very slightly exceeded 0.20 (at 0.202).

[27] The item was lawyers in (STATE) "are poor value for money."

[28] Lawyers in <STATE> "are not people I feel confident going to" was removed over "are not concerned with real people's lives" since its removal resulted in marginally better psychometric properties.

[29] Which is greater than the Bonferroni corrected p value of 0.005 (0.05/10 on account of the 10 items in the scale).

[30] A PSI of 0.86 allows scores to be split into three strata (Linacre 2013).

[31] Younger respondents appeared somewhat more likely than older respondents to endorse the "lawyers are not geared up for ordinary people to use" item.

[32] There was a relationship between lawyers being "slow" and "taking too long to deal with issues" with a residual correlation of 0.29 exceeding 0.20.

[33] Subject to some minor wording differences (e.g., people vs. places) to tailor items to either courts or lawyers. It is possible to construct scales for lawyers and courts with identical items and acceptable psychometric properties, though the focus was to construct scales best able to discriminate between respondents, which resulted in some differences in items.

[34] Meaning scores can be treated as being normally distributed, allowing common tests such as analysis of variance or *t*-tests.

[35] Respondents were asked about their past use of lawyers (including satisfaction with service) and courts or tribunals (including perceived fairness of outcome). Most respondents (1413 of 1845 (76.6%)) had not obtained help from a lawyer (for any issue) in the past 5 years. Of 432 who had used a lawyer, 336 of 432 (77.8%) were generally satisfied with the assistance they received. Similarly, most respondents (1501 of 1845 (81.3%)) had not attended or had contact with a court in the past 5 years. Where respondents had attended or had contact with a court, 238 of 344 (69.2%) felt the process had been fair. Respondents were also asked whether they could recall second-hand accounts of lawyers and courts from friends, family or colleagues. These were more common than first-hand experience and more likely to be negative. Of the 696 who could recall an account of a lawyer, 209 (30.0%) were positive, 295 negative (42.4%) and 192 mixed (27.6%). Of 569 who could recall an account of a court, 106 (18.6%) were positive, 330 negative (58.0%) and 133 mixed (23.4%).

[36] A well cited analysis is the way in which Rasch differentiates anxiety from depression in health settings (e.g., Gibbons et al. 2011) or in a legal context the way in which it identifies related attitudes to justice as multidimensional (Pleasence and Balmer 2018).

References

Adams, K., J. C. Botero, A. Coto, et al. 2017. *Global Insights on Access to Justice*. World Justice Project.

Akdeniz, G., and S. Kalem. 2020. "How Going to Court Affects the Attitudes Towards Courts." *Journal of Sociological Research* 23, no. 2: 1–33.

Allen, D. D., and M. Wilson. 2006. "Introducing Multidimensional Item Response Modeling in Health Behavior and Health Education Research." *Health Education Research* 21, no. 1: i73–i84.

Andrich, D., B. Sheridan, and G. Luo. 2016. "RUMM2030 [Computer Software]." Perth: Rumm Laboratories.

Bach Commission on Access to Justice. 2016. "The Crisis in the Justice System in England and Wales." https://www.fabians.org.uk/wp-content/uploads/2016/11/Access-to-Justice_final_web.pdf.

Baker, R., S. Blumberg, J. M. Brick, et al. 2010. "AAPOR Report on Online Panels." *Public Opinion Quarterly* 74, no. 4: 711–781.

Balmer, N. J., P. Pleasence, T. Hagland, and C. McRae. 2019. *Law... What Is It Good for? How People See the Law, Lawyers and Courts in Australia*. Victoria Law Foundation.

Balmer, N. J., P. Pleasence, H. McDonald, and R. L. Sandefur. 2023. *The Public Understanding of Law Survey*. Victoria Law Foundation.

Barendrecht, M., M. Gramatikov, I. Giesen, et al. 2010. *Measuring Access to Justice in a Globalising World: The Hague Model of Access to Justice*. HiiL.

Boateng, G. O., T. B. Neilands, E. A. Frongillo, H. R. Melgar-Quiñonez, and S. L. Young. 2018. "Best Practices for Developing and Validating Scales for Health, Social, and Behavioral Research: A Primer." *Frontiers in Public Health* 6: 149.

Bond, T. G., and C. M. Fox. 2015. *Applying the Rasch Model: Fundamental Measurement in the Human Sciences*. 3rd ed. Routledge.

Boone, W. J., J. R. Staver, and M. S. Yale. 2014. *Rasch Analysis in the Human Sciences*. Springer.

Bosch, O. J., L. Calderwood, and A. Gaia. 2024. *GenPopWeb2: Strategies to Improve Response Rates in Probability-Based Online Surveys: A Stystematic Literature Review*. National Centre for Social Research.

Bradley, K. D., M. R. Peabody, K. S. Akers, and N. Knutson. 2015. "Rating Scales in Survey Research: Using the Rasch Model to Illustrate the Middle Category Measurement Flaw." *Survey Practice* 8, no. 1: 1–12.

Callegaro, M., R. Baker, J. Bethlehem, A. S. Göritz, J. A. Krosnick, and P. L. Lavrakas. 2014. *Online Panel Research: A Data Quality Perspective*. Wiley.

Coaley, K. 2010. *An Introduction to Psychological Assessment and Psychometrics*. Sage Publications.

Collard, S., C. Deeming, L. Wintersteiger, M. Jones, and J. Seargeant. 2011. *Public Legal Education Evaluation Framework*. Law for Life.

Colquitt, J. A., and D. E. Conlon. 2001. "Justice at the Millennium: A Meta-Analytic Review of 25 Years of Organizational Justice Research." *Journal of Applied Psychology* 86, no. 3: 425–445.

Cornett, L., and N. A. Knowlton. 2020. *Public Perspectives on Trust & Confidence in the Courts*. University of Denver, Institute for the Advancement of the American Legal System.

Coumarelos, C., D. Macourt, J. People, et al. 2012. *Legal Australia-Wide Survey: Legal Need in Australia*. Law and Justice Foundation of New South Wales.

Cunha, L. G., F. L. de Oliveira, and R. E. Glezer. 2014. "Brazilian Justice Confidence Index—Measuring Public Perception on Judicial Performance in Brazil." *Revista Colombiana de Derecho Internacional* 25: 445–472.

Currie, A. 2009. "'A Lightning Rod for Discontent': Justiciable Problems and Attitudes Towards the Law and the Justice System." In *Reaching Further: Innovation, Access and Quality in Legal Services*, edited by A. Buck, P. Pleasence, and N. J. Balmer. TSO.

Curtice, J., N. Hudson, and I. Montagu, eds. 2020. *British Social Attitudes: The 37th Report*. NatCen Social Research.

Dalal, D. K., and N. T. Carter. 2015. "Negatively Worded Items Negatively Impact Survey Research." In *More Statistical and Methodological Myths and Urban Legends*, edited by C. E. Lance and R. J. Vandenberg, 112–132. Routledge/Taylor & Francis Group.

DeVellis, R. F. 2012. *Scale Development: Theory and Applications*. 3rd ed. Sage Publications.

Eagly, A. H., and S. Chaiken. 1993. *The Psychology of Attitudes*. Harcourt Brace Jovanovich College Publishers.

Evans, A., N. McNeil, S. McEachern, B. Tranter, and S. Wilson. 2018. *Australian Survey of Social Attitudes, 2018*. Australian National University, The Australian Survey of Social Attitudes (AuSSA).

Ewick, P., and S. S. Silbey. 1998. *The Common Place of Law: Stories From Everyday Life*. University of Chicago Press.

Felstiner, W. L. F., R. L. Abel, and A. Sarat. 1981. "The Emergence and Transformation of Disputes: Naming, Blaming, Claiming ...." *Law and Society Review* 15, no. 3–4: 631–654.

Fernandez, K. E., and J. A. Husser. 2021. *Public Attitudes Toward State Courts*. Oregon State University. https://open.oregonstate.education/open-judicial-politics/chapter/public-attitudes-toward-state-courts/.

Fisher, W. P. 1992. "Reliability, Separation, Strata Statistics." *Rasch Measurement Transactions* 6, no. 3: 238.

Galanter, M. 1974. "Why the "Haves" Come Out Ahead: Speculations on the Limits of Legal Change." *Law and Society Review* 9, no. 1: 95–160.

Galanter, M. 1983. "Reading the Landscape of Disputes: What We Know and Don't Know (and Think We Know) About Our Allegedly Contentious and Litigious Society." *UCLA Law Review* 31, no. 1: 4–71.

Galanter, M. 1998. "An Oil Strike in Hell: Contemporary Legends About the Civil Justice System." *Arizona Law Review* 40: 717–752.

Garth, B. G., and M. Cappelletti. 1978. "Access to Justice: The Newest Wave in the Worldwide Movement." *Buffalo Law Review* 27, no. 1: 181–292.

Genn, H. 1993. "Tribunals and Informal Justice." *Modern Law Review* 56, no. 3: 393–417.

Genn, H. 2009. *Judging Civil Justice, Hamlyn Lectures 2008*. Cambridge University Press.

Genn, H. 2012. "What Is Civil Justice for? Reform, ADR, and Access to Justice." *Yale Journal of Law and the Humanities* 24, no. 3: 397–417.

Gibbons, C. J., R. J. Mills, E. W. Thornton, et al. 2011. "Rasch Analysis of the Hospital Anxiety and Depression Scale (HADS) for Use in Motor Neurone Disease." *Health and Quality of Life Outcomes* 9, no. 82: 82. https://doi.org/10.1186/1477-7525-9-82.

Gramatikov, M., M. Barendrecht, and J. H. Verdonschot. 2011. "Measuring the Costs and Quality of Paths to Justice: Contours of a Methodology." *Hague Journal on the Rule of Law* 3: 349–379.

Habbig, A.-K., and I. Robeyns. 2022. "Legal Capabilities." *Journal of Human Development and Capabilities* 23, no. 4: 611–629.

Hans, V. P., and W. S. Lofquist. 1994. "Perceptions of Civil Justice: The Litigation Crisis Attitudes of Civil Jurors." *Behavioral Sciences & the Law* 12, no. 2: 181–196.

Inglehart, R. F., C. W. Haerpfer, A. Moreno, et al. 2014. "World Values Survey: All Rounds—Country Pooled Datafile." World Values Survey, Madrid: JD Systems. https://www.worldvaluessurvey.org/WVSDocumentationWVL.jsp.

Jamieson, K. H., and M. Hennessy. 2007. "Public Understanding of and Support for the Courts: Survey Results." *Georgetown Law Journal* 95, no. 4: 899–902.

Kaczmirek, L., B. Phillips, D. Pennay, P. J. Lavrakas, and D. Neiger. 2019. *Building a Probability-Based Online Panel: Life in Australia*. Australia National University Centre for Social Research and Methods.

Klaming, L., and I. Giesen. 2008. "Access to Justice: The Quality of the Procedure." Onbekend: Tillburg Institute for Interdisciplinary Studies of Civil Law and Conflict Resolution Systems (TISCO).

Kline, P. 1993. *A Handbook of Psychological Testing*. 2nd ed. Routledge/Taylor & Francis Group.

Kritzer, H. M., and J. Voelker. 1998. "Familiarity Breeds Respect: How Wisconsin Citizens View Their Courts." *Judicature* 82, no. 2: 58–64.

Law Reform Commission of Ireland. 2010. *Alternative Dispute Resolution: Mediation and Conciliation*. Ireland. https://www.lawreform.ie/_fileupload/reports/r98adr.pdf.

Linacre, J. M. 1994. "Sample Size and Item Calibration Stability." *Rasch Measurement Transactions* 7, no. 4: 328.

Linacre, J. M. 2013. "Reliability, Separation and Strata: Percentage of Sample in Each Level." *Rasch Measurement Transactions* 26, no. 4: 1399.

M/A/R/C Research. 1998. *Perceptions of the US Justice System*. American Bar Association.

Marais, I., and D. Andrich. 2008. "Effects of Varying Magnitude and Patterns of Local Dependence in the Unidimensional Rasch Model." *Journal of Applied Measurement* 9, no. 2: 105–124.

Mercer, A., and A. Lau. 2023. "Comparing Two Types of Online Survey Samples." Pew Research Center.

Mnookin, R. H., and L. Kornhauser. 1979. "Bargaining in the Shadow of the Law: The Case of Divorce." *Yale Law Journal* 88, no. 5: 950–997.

Moorhead, R., M. Sefton, and L. Scanlan. 2008. *Just Satisfaction? What Drives Public and Participant Satisfaction With Courts and Tribunals*. Ministry of Justice.

Murayama, M. 2007. "Experiences of Problems and Disputing Behaviour in Japan." *Meiji Law Journal* 14: 1–59.

National Alternative Dispute Resolution Advisory Council (NADRAC). 2009. *The Resolve to Resolve—Embracing ADR to Improve Access to Justice in the Federal Jurisdiction: A Report to the Attorney–General*. NADRAC.

National Center for State Courts (NCSC). 2022. "State of the State Courts 2022." National Center for State Courts. https://www.ncsc.org/consulting-and-research/areas-of-expertise/leadership-and-governance/state-of-the-state-courts.

Nemoto, T., and D. Beglar. 2014. "Developing Likert Scale Questionnaires." In *JALT2013 Conference Proceedings*, edited by N. Sonda and A. Krause. JALT.

Nussbaum, M. 2000. *Women and Human Development: The Capabilities Approach*. Cambridge University Press.

Nussbaum, M. 2011. "Capabilities, Entitlements, Rights: Supplementation and Critique." *Fordham Law Review* 66, no. 2: 23–37.

Olson, S. M., and D. A. Huth. 1998. "Explaining Public Attitudes Toward Local Courts." *Justice System Journal* 20, no. 1: 41–61.

Organisation for Economic Co-Operation and Development (OECD). 2016. *Leveraging the SDGs for Inclusive Growth: Delivering Access to Justice for All*. OED and Open Society Foundations.

Organisation for Economic Co-Operation and Development (OECD)/Open Society Foundations. 2019. *Legal Needs Surveys and Access to Justice*. OECD Publishing, Paris and Open Society Foundations.

Patel, A., N. J. Balmer, and P. Pleasence. 2008. "Geography of Advice Seeking." *Geoforum* 39, no. 6: 2084–2096.

Pleasence, P., and N. J. Balmer. 2014. *How People Resolve 'Legal' Problems*. Legal Services Board.

Pleasence, P., and N. J. Balmer. 2019b. "Justice & the Capability to Function in Society." *Daedalus* 148, no. 1: 140–149.

Pleasence, P., and N. J. Balmer. 2025. "Legal Capability and Access to Civil Justice." In *Research Handbook on Civil Justice*. Edward Elgare Publishing.

Pleasence, P., N. J. Balmer, and C. Denvir. 2015. *How People Understand and Interact With the Law*. Legal Education Foundation.

Pleasence, P., N. J. Balmer, and S. Reimers. 2011. "What Really Drives Advice Seeking Behaviour? Looking Beyond the Subject of Legal Disputes." *Onati Socio-Legal Series* 1, no. 6: 1–21.

Pleasence, P., and N. J. Balmer. 2018. "Measuring the Accessibility and Equality of Civil Justice." *Hague Journal on the Rule of Law* 10, no. 2: 255–294.

Pleasence, P., and N. J. Balmer. 2019a. "Development of a General Legal Confidence Scale: A First Implementation of the Rasch Measurement Model in Empirical Legal Studies." *Journal of Empirical Legal Studies* 16, no. 1: 143–174.

Pleasence, P., C. Coumarelos, S. Forell, and H. M. McDonald. 2014. *Reshaping Legal Assistance Services: Building on the Evidence Base*. Law and Justice Foundation of New South Wales.

Rosenberg, M. J., and C. I. Hovland. 1960. "Cognitive, Affective and Behavioural Components of Attitudes." In *Attitude Organisation and Change: An Analysis of Consistency Among Attitude Components*, edited by M. J. Rosenberg and C. I. Hovland. Yale University Press.

Roy Morgan. 2021. "Roy Morgan Image of Professions Survey 2021." Roy Morgan. https://www.roymorgan.com/findings/roy-morgan-image

-of-professions-survey-2021-in-a-year-dominated-by-covid-19-health-professionals-including-nurses-doctors-and-pharmacists-are-the-most-highly-regarded-but-almost-all-professions-d.

Sandefur, R. L. 2007. "The Importance of Doing Nothing: Everyday Problems and Responses of Inaction." In *Transforming Lives: Law and Social Process*, edited by P. Pleasence, A. Buck, and N. J. Balmer, 112–132. Stationery Office.

Sandefur, R. L. 2019. "Access to What?" *Daedalus* 148, no. 1: 49–55.

Schinka, J. A., F. Wayne, I. B. Velicer, and I. B. Weiner. 2012. "Research Methods in Psychology." In *Handbook of Psychology*, vol. 2. John Wiley & Sons, Inc.

Schriesheim, C. A., and R. J. Eisenbach. 1995. "An Exploratory and Confirmatory Factor-Analytic Investigation of Item Wording Effects on the Obtained Factor Structures of Survey Questionnaire Measures." *Journal of Management* 21, no. 6: 1177–1193.

Schwarz, N., and G. Bohner. 2001. "The Construction of Attitudes." In *Intrapersonal Processes (Blackwell Handbook of Social Psychology)*, edited by A. Tesser and N. Schwarz, 436–457. Blackwell Publishing.

Sen, A. K. 1999. *Development as Freedom*. Oxford University Press.

Sen, A. K. 2004. *Rationality and Freedom*. Belknap Press.

Sen, A. K. 2010. *The Idea of Justice*. Penguin Books.

Shapiro, L. J. 2020. *Public Perceptions of Lawyers: Consumer Research Findings*. American Bar Association.

Smith, E. V. 2002. "Detecting and Evaluating the Impact of Multidimensionality Using Item Fit Statistics and Principal Components Analysis of Residuals." *Journal of Applied Measurement* 3, no. 2: 205–231.

Stratton, M., and D. Lowe. 2005. "Public Confidence and the Civil Justice System: What Do We Know About the Issues?" Canadian Forum on Civil Justice, Edmonton. https://www.cfcj-fcjc.org/sites/default/files/docs/2006/cjsp-confidence-en.pdf.

Tennant, A., and P. G. Conaghan. 2007. "The Rasch Measurement Model in Rheumatology: What Is It and Why Use It? When Should It Be Applied, and What Should One Look for in a Rasch Paper?" *Arthritis and Rheumatism* 57, no. 8: 1358–1362.

United Nations. 2022a. "Goal 16: Promote Just, Peaceful and Inclusive Societies." United Nations. https://www.un.org/sustainabledevelopment/peace-justice/.

United Nations. 2022b. "SDG Indicators Metadata Repository." United Nations. https://unstats.un.org/sdgs/metadata/?Text=&Goal=16.

Verdonschot, J. H., M. Barendrecht, L. Klaming, and P. Kamminga. 2008. *Measuring Access to Justice: Quality of Outcomes*. Tilburg Institute for Interdisciplinary Studies of Civil Law, and Conflict Resolution Systems.

Weisberg, H. F. 2005. *The Total Survey Error Approach: A Guide to the New Science of Survey Research*. University of Chicago Press.

Wilson, C. 2012. *The Public and the Justice System: Attitudes, Drivers and Behaviour: A Literature Review*. Scottish Government Social Research.

Wolfe, E. W., and E. V. Smith. 2007. "Instrument Development Tools and Activities for Measure Validation Using Rasch Models: Part II—Validation Activities." *Journal of Applied Measurement* 8, no. 2: 204–234.

World Justice Project. 2018. *General Population Poll 2018*. World Justice Project.

World Justice Project. 2019. *Global Insights on Access to Justice*. World Justice Project.

Wright, B. D., and J. M. Linacre. 1989. "Observations Are Always Ordinal: Measurements, However, Must Be Interval." *Physical Medicine and Rehabilitation* 70, no. 12: 857–860.

Wright, B. D., and G. N. Masters. 2002. "Number of Person or Item Strata." *Rasch Measurement Transactions* 16, no. 3: 888.

Yeager, D. S., J. A. Krosnick, L. Chang, et al. 2011. "Comparing the Accuracy of RDD Telephone Surveys and Internet Surveys Conducted With Probability and Non-Probability Samples." *Public Opinion Quarterly* 75, no. 4: 709–747.

Young, K. M. 2014. "Everyone Knows the Game: Legal Consciousness in the Hawaiian Cockfight." *Law and Society Review* 48, no. 3: 499–530.