STUDY OF THE EFFECTS OF ANCHORAGE IN JUDICIAL JUDGEMENTS IN CHILD CUSTODY DISPUTE PROCEEDINGS

ESTUDIO DE LOS EFECTOS DEL ANCLAJE EN RAZONAMIENTOS JUDICIALES EN CASOS DE DISPUTA POR LA GUARDA Y CUSTODIA

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Abstract

Judicial judgment and decision making should be sustained in formal or statistical reasoning, avoiding biased reasoning. Thus, judicial reasoning should not contain any bias. A profusely studied source of bias is anchorage implying a cognitive saving by accepting the initial hypothesis without confirming it and rejecting other information or alternative hypotheses though they may be relevant to the task at hand. As for knowing the prevalence and effects of anchored sentences in family cases' judicial sentences, 811 Spanish custody dispute sentences were randomly selected from the CENDOJ data base. Anchorage was measured through initial claimant in child custody dispute (first instance court) or prior judicial decision-making (appeal court). The results stated that 70.2 % of the judicial sentences were anchored. A systematic content analysis of the sentences gave support to the hypothesis that anchorage provides judges and courts a skill to save cognitive activity (about 12 %). Moreover, anchored sentences contained significantly fewer reasoning favourable to custody; fewer idiosyncratic information i.e., own reasoning of the judge; and fewer contextual information i.e., less evidence-based. The implications for judicial judgment and decision are discussed, as well as the possibilities to control the anchorage prevalence in judicial sentences.

Keywords: Anchorage; Heuristics; Judicial sentences; Cognitive activity; Custody dispute.

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Resumen

La formación de juicios y la toma de decisiones judiciales deberían estar sustentadas en razonamientos formales o estadísticos, y no en razonamientos sesgados de modo que no deberían contener razonamientos sesgados. Una fuente de sesgo profusamente estudiada en la literatura es el anclaje que implica un ahorro cognitivo al aceptar la hipótesis inicial sin confirmarla y rechazar información o hipótesis alternativas, aunque puedan resultar relevantes para el juicio o decisión. Para conocer de la prevalencia y los efectos del anclaje en sentencias judiciales de casos de familia, seleccionamos al azar 811 sentencias en disputa por la guarda y custodia de la base de datos del CENDOJ. El anclaje se midió a través de la demanda inicial en la disputa por la custodia (juzgado de familia) o en la decisión del tribunal previo (apelaciones). Los resultados mostraron que el 70.2 % las decisiones estaban ancladas. Un análisis de contenido sistemático de las sentencias prestó apoyo a la hipótesis de que el anclaje sirve a jueces y tribunales como herramienta para el ahorro cognitivo (alrededor del 12 %). Además, las sentencias ancladas contenían significativamente menos razonamientos favorables a la custodia; menos información idiosincrásica, o sea, razonamientos propios del juez; y menos información contextual, esto es, menos prueba basada en evidencia. Se discuten las implicaciones de los resultados para la formación de juicios y toma de decisiones judiciales, así como las opciones de mitigar sus efectos.

Palabras clave: Anclaje; Heurísticos; Sentencias; Actividad cognitiva; Disputa por la custodia.

Introduction

According to the last statistical update available from the UE-28, in 2011 an estimated 64.1 % of adults aged 20 or more were living as couples, 55.3% of which were married and 8.8 % living in consensual unions (Eurostat, 2015). As for the fertility rate, this has dipped below the replacement level (2.1), with slight increase in the birth rate from 1.46 births in 2000 to 1.55 births in 2013. In 2011, the crude marriage rate was of 4.2 in the UE-28 while the crude divorce rate was 2.0, resulting in a separation risk of .48. In absolute terms, this translates into 960.000 separations, around 500.000 of which involve offspring. In Spain, the crude separation rate for 2015 (the last available year) was 2.1, with a total number of couple breakdowns of 90.562, more than a half of these involving offspring (Instituto Nacional de Estadística [INE], 2016).

The repercussions of parental separation on offspring are varied with positive effects for some, negative ones for others, and no effects for most (Amato & Anthony, 2014). Nonetheless, the mean effect was significantly negative (Amato, 2001; Amato & Keith, 1991), mediating the effects of a number of variables (e.g., lapse in time since the separation; exposure time to pre-separation conflict, interparental conflict level, remarriage). The literature has identified and structured damages into 5 welfare indicators: psychological adjustment, academic performance, behavioural problems, self-concept, and social relations (Amato, 2001; Amato & Keith, 1991). In relation to global damage in children from separated parents, psychological adjustment has been estimated to stand at 17 %; with a 14.6 % increase in the mean school failure rate; a 13.2 % increase in mean disruptive behaviour in the classroom; an 11.8 % increase in aggressive behaviour in social contexts (conduct problems); significantly deteriorated self-concept (32 % in academic, 27 % emotional, 22 % physical, and 37 % in family self-concept); deficiencies in social relations i.e., 16 % loss of self-control in social relations, and a 21% increase in social withdrawal (Seijo, Fariña, Corras, Novo, & Arce, 2016). Additionally, Corras et al. (2017) found a relation between parental separation and maladjustment to the school quantified in 21, 29, and 38 % for level 1 (from 8 to 11 years); level 2 (from 12 to 14 years); and level 3 (15 years or more) of academic development, respectively. Moreover, damage was found to range significantly between-subjects from very small (e.g., 1.2 % in psychological adjustment) to large (e.g., 47.7 % in family self-concept). Parental separation was also found to raise the probability of living below the poverty line by .339. Furthermore, we should not overlook that damages are not transitory and tend to become chronic overtime (Sun, 2001).

In this line, the guidelines and standards promoted by professional associations to regulate the aims of the forensic psychological evaluation in child custody disputes

guide the evaluation to the best interest of the child resulting from the best fit between the child's needs and parental attributes responding to those needs (American Psychological Association [APA], 2010; Martindale, Martin, Austin, & Task Force Members, 2007). Thus, the psychological mandate for determining child custody is centred on the child's best interest and, subsequently, judicial judgments too. Nevertheless, judicial judgments are prone to heuristics and bias (Saks & Kid, 1986). Heuristics are reasoning strategies that people use to reduce assessing and judging complex tasks into simple operations (Tversky & Kahneman, 1974). Usually, heuristics are useful, but they may drive judgements to systematic errors. In any case, although the resulting judgments may be correct, it rests on biased reasoning in contrast to formal or statistical reasoning. The sources of bias that influence human judgements have been classified as motivational or cognitive (Kruglanski & Azjen, 1983; Ross, 1977). Motivational bias refers to the tendency to form and hold beliefs that fulfil the individual's needs i.e., those inferences that agree or are congruent with the individual´s needs. Cognitive bias arises from limitations in human information-processing. Three sources of cognitive bias were identified: information salience and availability, preconceived ideas or theories, and the phenomena of anchoring and perseverance. The prevalence of the anchorage heuristic in legal judgement-making has been extensively reported in the literature (Englich & Mussweiler, 2001; Fariña, Arce, & Novo, 2002; Kreiner, 2009). Anchorage implies a cognitive saving by accepting the initial hypothesis without confirming it (Nisbett & Ross, 1980), and rejecting other information or alternative hypotheses though they may be relevant to the task at hand (Ross & Lepper, 1980). However, the prevalence and the effects underpinning the reasoning behind anchorage in judicial judgements in child custody have not been examined.

Bearing in mind this context, an archival study was undertaken to assess the impact of anchorage in judicial judgement-making in child custody disputes leading to sole-parental custody. A further objective was to assess the hypothesis regarding the heuristic of anchorage, the cognitive savings, and their effects on the biased reasoning behind judgements.

Method

Protocols

A total of 1000 civil judgement on separation or divorce in Spain in 1999 were randomly selected. The selection was performed by computer from the judgements of the CENDOJ which is ascribed to the Consejo General del Poder Judicial [Spanish General Council of the Judiciary]. Of these, 630 were from the Provincial Courts, and 370 from the lower courts of First Instance. The exclusion criteria for the original 1000 judgements in the present study were judgements other than child custody disputes; unresolved child custody disputes; judgements where one of the parties renounced their right to child custody; and judgements where only one party demanded child custody. Thus, a total 811 judgements were selected after applying the exclusion criteria. Thereafter, the margin of error for a sample size of 881 was calculated with a confidence level of 95 %, and *pq* being equal to .75 (see the distribution of anchorage in the judgements in the results section), resulting in 3 %.

Analysis of protocols

Initially, the analysis of the protocols was designed to search for the anchorage heuristic, which was measured using initial and direct estimates (Wagenaar, 1995). Anchorage was measured on the basis of being awarded of child custody or not, and was operationalised in two different ways according to whether judgements were from lower courts or from higher courts of appeal. In the case of the lower courts, a judgement was considered anchored if it coincided with the claimant in the child custody dispute. Obviously, there was a challenge to the claimant in all cases (inclusion criteria), mainly on behalf of the other parent though other members of the extended family or from social welfare service may be involved. The first case brought by the claimant would be the initial hypothesis. In the courts of appeal, the initial hypothesis of anchorage is circumscribed to prior judicial decision-making. Moreover, the court disposes of an alternative hypothesis: the petition of the appealling party (inclusion criteria). Succintly, a judgement was encoded as anchored when the judicial judgement coincided entirely

with the initial judicial judgement under appeal. Given that this type of classification of anchorage could have different effects on the measured variables, a prior analysis revealed both groups of judgement were equal in general, $F(2, 567) = 2.00$, *ns*, and specific cognitive activity, $F(6, 563) = 2.07$, *ns*.

Every judgement entails cognitive activity on behalf of the person involved in judgement-making. This activity is expressed in the drafting of an informed judgement detailing the legal grounds for the jury's decision (Art. 120.3 CE). Cognitive activity provides information related to decisional substrata such as reasoning styles or bias. The literature (Arce, Fariña, & Seijo, 2005; Fariña et al., 2002) has shown that cognitive activity encompasses both general and specific dimension, depending on whether it is linked or not to the decision-making context i.e., the evidence under scrutiny. The categories of analysis of general cognitive activity, which are highly internally consistent, $\alpha = .913$, are common to all contexts of analysis:

- Total word count.
- Total number of statements[2] (i.e., a sequence of words with communicative value and full sense that may be composed by one or several clauses).

Moreover, the initial categories of specific cognitive activity were adjusted to the context of judgements of cases of child custody disputes. The researchers designed a methodic categorical system (Bardin, 1996) (i.e., relevance, objective [fidelity in coding, see subsection 'coding reliability'], productive, exhaustive, homogeneous [internal consistency], and mutually exclusive [independent measures]) on the basis of an analyses of prior judgements on child custody. Thus, a system of successive approximations was employed to search for all possible categories of analysis (exhaustiveness, productivity, and relevance). Finally, a mutual exclusion of categories test was performed (Thurstone's procedure). A coding manual was designed with precise definitions and exam-

ples for each category (objectivity and fidelity of the codings). The final result was a system with high internal consistency (homogeneity), $\alpha = .797$, consisting of the following categories of analysis:

- Number of pro-custody arguments (with a valence in favour of the custodial parent)[3].
- Number of arguments against non-custody (with a valence against the non-custodial parent)[4].
- Number of neutral arguments (arguments with a neutral valence, that is, neither in favour nor against the custodial or non-custodial parent).
- Information on parenting skills, child's needs and adjustment (to tally the number of arguments related to the parents' child rearing abilities and skills to award child custody, and emotional and psychological stability, etc.).
- Contextual information (allusions to contextual information related to offspring such as housing, extended family, new partners, groups of friends, proximity to school, financial resources, change of school/home, etc.).
- Normative information (number of references to legal precepts, laws, articles, case law, and jurisprudence).

Coding reliability

The protocols were equally divided between two encoders who coded them according to cognitive and heuristic anchoring. Following a 10-day period, 10 % of the protocols were cross-checked inter-coder and another 10 % intra-coder. The two encoders were extensively trained and provided a coding manual with an exhaustive definition for each category, the unit of analysis, and examples) in coding using the same categorical system but with judicial judgements not included in the study. In the training stage, the encodings were revised by researchers together with encoders to determine the accuracy of the encodings, to correct bias, and to homogenise criteria. Both encoders had previous experience in other encod-

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[2]The original measurement instrument made a distinction between abstract and concrete statements, that is, related or not to the case. In the protocols of this study the only productive category was 'related statements'.

[3] The frequency of arguments contrary to custody was not registered. That is, this category was productive.

[4] No arguments in favour of the non-custodial parent were observed i.e., this category was not productive.

ings with an analogous encoding procedure, and several overlapping categories of content analysis, and were consistent with the third encoders (Arce et al., 2005; Fariña et al., 2002; Arce, Fariña, & Fraga, 2000). Reliability was computed differently according to categorical or discrete variables: Cohen's kappa, for the first, and the correlation for the second. Cohen's kappa corrects estimates of concordance of the probability of random correct responses. However, the correlation coefficient is not in itself an accurate estimate of reliability without safeguards as to its accurateness. Thus, with both encoders registering a category of analysis of 17 recounts, the correlation would be 1, and could be referring to different contingencies and the correlation would be 0, with an error rate of 34. Therefore, the correspondence of the encodings was verified. With this safeguard, the results for the discrete variables substantiated (see Table 1) intra- and inter-coders' reliability. As for the encoding of the anchorage decision (anchored judgement/not anchored judgement) both intra- and inter-coders were fully consistent (kappa = 1).

In content analysis, reliability was not restricted to the instrument i.e., the categorical system (internal consistency), and the inter- and intra-encoder consistency of this study, but also extended to the evaluation of inter-contexts consistency i.e., to establish an estimate of consistency for the categorical system in other contexts, and to obtain results consistent with other encoders. The categorical system described in this study has been shown to be reliable and valid in other studies, and the encoders in the present study were consistent with other encoders using the same categorical system. Thus, the results of other encoders will be consistent with those of the present study. The inter- and intra-encoders **consistency**, and inter-contexts consistency revealed the measures were highly reliable (Wicker, 1975).

Data analysis

A multivariate analysis of variance (MANOVA) was performed to examine cognitive activity associated to the presence vs. absence of anchorage. It is widely accepted that the analysis of variance is a robust test, especially for same size or approximately the same sized groups (big/small < 1.5). This was not the case in the present study (570/241 = 2.37). Though many researchers consider it irrelevant (Stevens, 1986), the absence of homogeneity of variance can lead to crucial deviations in the significance of the results. Thus, if variability is greater in the small group, the F is liberal. Therefore, the variables were transformed by calculating the square root of the values of general and specific cognitive activity to homogenise the variance, "the procedure stabilizes the variance approximately to 1 if the mean of the original observations is > .8" (Dixon & Massey, 1983, p. 373). Nevertheless, to validate the correct confirmation or rebuttal of the null hypothesis, the theoretical F value (Box's M test, $F = 3.841$) was contrasted with the empirical value, in such a way that if theoretical F is smaller than the empirical one, the alternative hypothesis is accepted, and vice versa (Palmer, 1996). This method was

Table 1.

Coding reliability

Analysis category	r_{12}	p	r_{21}	p	r_1	p	r_2	p
Words	1.00	.001	1.00	.001	1.00	.001	1.00	.001
Statements	1.00	.001	1.00	.001	1.00	1.00	1.00	1.00
Pro-custody arguments	1.00	.001	1.00	.001	1.00	.001	1.00	.001
Arguments against the custody	.992	.001	.938	.001	.927	.001	1.00	.001
Neutral statements	1.00	.001	1.00	.001	1.00	.001	1.00	.001
Parenting skills, child's needs and adjust	.925	.001	.885	.001	1.00	.001	.936	.001
Contextual information	1.00	.001	1.00	.001	1.00	.001	1.00	.001
Normative information	1.00	.001	1.00	.001	1.00	.001	1.00	.001

Note. r_{12}: correlation between-encoders 1 and 2; r_{21}: correlation between-encoders 2 and 1; r_1: correlation within-encoder 1; r_2: correlation within-encoder 2.

Table 2.

Anchoarge and general cognitive activity

Variables	F	p	r(95%CI)	M_1	M_0	g/δ(95%CV)
Number of words	6.83	.009	.12[-.19, -.05]	32.95	34.88	0.24[0.09, 0.39]
Number of statments	1.83	.176	.06[-.13, .01]	8.25	8.80	0.13[-0.02, 0.28]

Note. df(1, 809). r(95%CI): correlation effect size(95% confidence interval; M_1: anchored sentence group; M_0: non-anchored sentence group; g/δ(95%CV): Hedges's g/Glass's δ(95% credibility interval).

used to ensure the empirical *F*s obtained the same results in terms of acceptance and rebuttal of the null hypothesis as the theoretical *F*s. The effect sizes were estimated with the eta squared for multivariate analysis, and Hedges's *g* (groups are dissimilar in size) or Glass's δ (if homogeneity of variance assumption is violated) when comparing two sample means. Credibility intervals for Hedges's *g*/Glass's δ were computed to contrast the generalization of the results to other samples (Hunter & Schmidt, 2015). Finally, to quantify the magnitude of cognitive savings, the BESD procedure (Rosenthal & Rubi, 1982) was used, derived from *r* effect size and its confidence intervals.

Results

Of a total of 811 judgements, 570 (70.3 %) were anchored to the initial demand or the previous judicial decision. The results show the effect of anchorage was significantly greater than its absence, $\chi^2(1, N = 811) = 133.47$, $p < .001$, the probability of anchorage being .406 (40.6 %) greater, with a 95 % confidence interval for this superiority from .373 to .439.

Bearing in mind that judgements of separation or divorce are mediated by decisional anchorage, this study aimed to assess the role of anchorage of judicial judgements in child custody litigation. According to the literature (Tversky & Kahneman, 1974), anchorage serves as a cognitive cost-saving tool for judgement-making and

the reasoning behind a judgement (Fariña et al., 2002; Novo & Seijo, 2010). The results of this study confirm this hypothesis. A significant anchorage effect was observed in cognitive activity underlying the reasoning of a judgement, $F(2, 808) = 5.73$, $p < .01$, $\eta^2 = .014$, the univariate effects showed the absence of anchorage was marked by more words than when judgements were driven by anchorage (see Table 2). Succinctly, the savings in terms of the number of words was 12 % ($r = .12$), and ranged from 5 to 20 %. Notwithstanding, this saving did not affect all of the statements (set of words or sentences with communicative sense) that underpinned a judgement. Hence, the effect materializes in the depth of the arguments, and not in their quantity. The results of this study are generalizable to all the tasks of judicial judgement-making in the Spanish context (see credibility intervals for Hedges's *g*/Glass's δ).

In relation to specific cognitive activity, the results revealed the anchorage factor mediated differences, $F(6, 804) = 9.03$, $p < .001$, $\eta^2 = .063$. The univariate effects (see Table 3) indicated anchored judgements rested on judgements based on fewer arguments, around 14 % ($r = .14$), ranging between 7 to 20 % less favourable to custody; less reasoning, 12 %, fluctuating between 5 and 19 % less, on parenting skills, needs of offspring and adjustment between both parameters; and less reasoning on contextual circumstances related to the case of child custody, a 11 % less, ranging from a minimum of 4 % to a maximum of 18 %. In short, anchored judgements not

Table 3.

Anchoarge and specific cognitive activity

Variables	F	p	r(95%CI)	M_1	M_0	g/δ(95%CV)
Pro-custody arguments	11.88	.001	-.14[-.20, -.07]	0.37	1.23	0.28[0.13, 0.43]
Arguments against non-custody	2.43	.120	-.06[-.13, .01]	0.08	0.27	0.12[-0.03, 0.27]
Neutral arguments	1.67	.197	-.05[-.12, .02]	8.22	8.40	0.09[-0.06, 0.24]
Info. parenting skills, child's needs and adjustment	11.03	.001	-.12[-.19, -.05]	0.33	0.54	0.25[0.09, 0.40]
Contextual information	9.46	.002	-.11[-.18, -.04]	1.88	1.94	0.22[0.07, 0.37]
Normative information	2.62	.106	-.06[-.13, .01]	3.10	3.76	0.13[-0.02, 0.28]

Note. df(1, 809). r(95%CI): correlation effect size(95% confidence interval); M_1: anchored sentence group; M_0: non-anchored sentence group; g/δ(95%CV): Hedges's g/Glass's δ(95% credibility interval).

only saved cognitive activity and the judgement maker's reasoning behind the judgement, but judgements were also less motivated and less grounded on legal evidence. These results are generalizable to all of the tasks in judicial judgement-making in the Spanish context (see credibility intervals for Hedges's *g*/Glass's δ).

Discussion

The results of the present study are subject to several limitations that should be borne in mind in the interpretartion of the findings. First, the results are not generalizable to all the conditions of judicial judgement-making (alpha error). The results are restricted to judgements of judges and courts awarding sole child custody orders. Decisions of mutual consensus or joint custody judgements probably have other types of results in cognitve activity. Nonetheless, the relevance of the results and their implications in decsision-making in child custody cannot be overlooked (beta error). Second, in this study the task involved judicial judgements, which is only part of the judicial process. For instance, legal variables (e.g., legal precepts; processing evidence, judicial statements) and extralegal variables (e.g., unreasoned tendency to asign sole custody to the mother; Arce et al., 2005) also have effects on judicial judgements, but these have not been assessed in this study.

Taking into account the limitations of this study, the results reveal that judges and courts employ the anchorage heuristic to economize on reasoning a judicial judgement, not so much in the quantity of arguments that support a demand for custody (statements), but rather in the length of statements, that is, the number of words). Both judges and courts resorted to anchorage for cognitive saving with a mean of 12 %. Nevertheless, the effects of savings were adverse and inadmissible in judicial judgement making (Goodman-Delahunty & Sporer, 2010; Kreiner, 2009). In fact, anchored judgements are less reasoned, saving 14 % in custody arguing, while rests less on the evidence i.e., parental skills, needs of offspring and the adjustment to both (11 %), and the child's context of development (12 %). Thus, the results substantiate the model supporting anchorage, as a cognitive bias grounded on limited information processing

(Kruglansky & Azjen, 1983; Nisbett & Ross, 1980; Ross, 1977; Ross & Lepper, 1980), resulting in cognitive saving and the rejection of information that might support an alternative hypothesis i.e., in this study a custodial parent different to the initial hypothesis. in contrast non-anchored judgements, in legal terms anchored judgements adhere less (there is compliance with the law because the reasoning behind a judgement can be brief and concise; Martí-Sánchez, 2003), to the constitutional principle enshrined in article 120.3 of the Spanish Constitution, 'judicial judgements must always be reasoned'. However, judgements that rest less on the evidence and are open to arbitrariness, which is contrary to best judicial practice of article 120, and do not safeguard the child's best interest in terms of the parent who will satisfy the child's needs. In short, judgements on child custody exclusively anchored in the initial hypothesis rest on informal scientific and legal reasoning.

Controlling the effects of anchorage entails judgement makers having access to alternative sources of anchorage (Plous, 1993). In this case this would involve fostering, as a criterion of initial decision (anchorage), joint custody, defined not as a means of sharing time equally between parents, but in terms of co-parenting in which both parents coordinate their efforts to raise their children (Margolin, Gordis, & John, 2001), and to provide the best response to cater for the child's needs (APA, 2010; Martindale et al., 2007). This implies that the child's needs must be determined as well as the skill and ability of each parent in satisfy these, to reason each and every adjustment, and to ensure child's wellbeing and development in an environment and social conditions conducive to the child's advancement. This will raise motivation and ensure decisions rest on the evidence rather than being arbitrary. Anchorage is extensive considering the rate judgements awarding joint custody in Spain in 2015 was only 24.6 % (INE, 2016). Nevertheless, future research is required to determine if joint custody is driven by the child's best interest, and the assessment of the needs of offspring, parental skills and abilities and the search for the best adjustment between both, and if the environmental and social conditions foster the development.

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