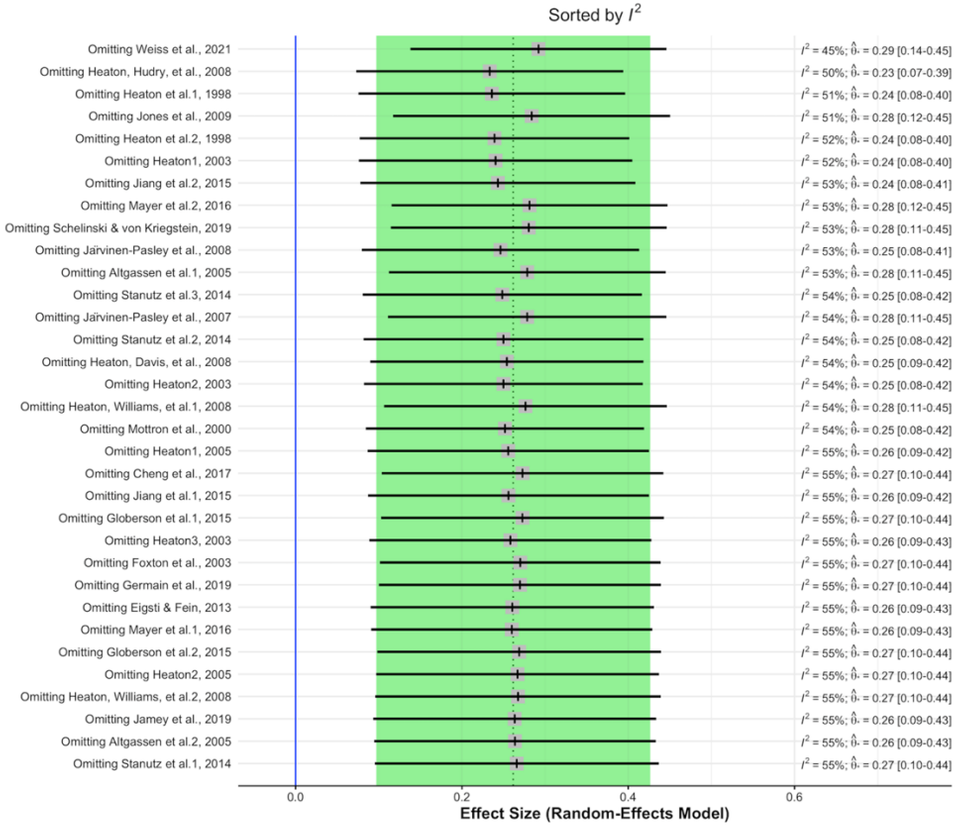
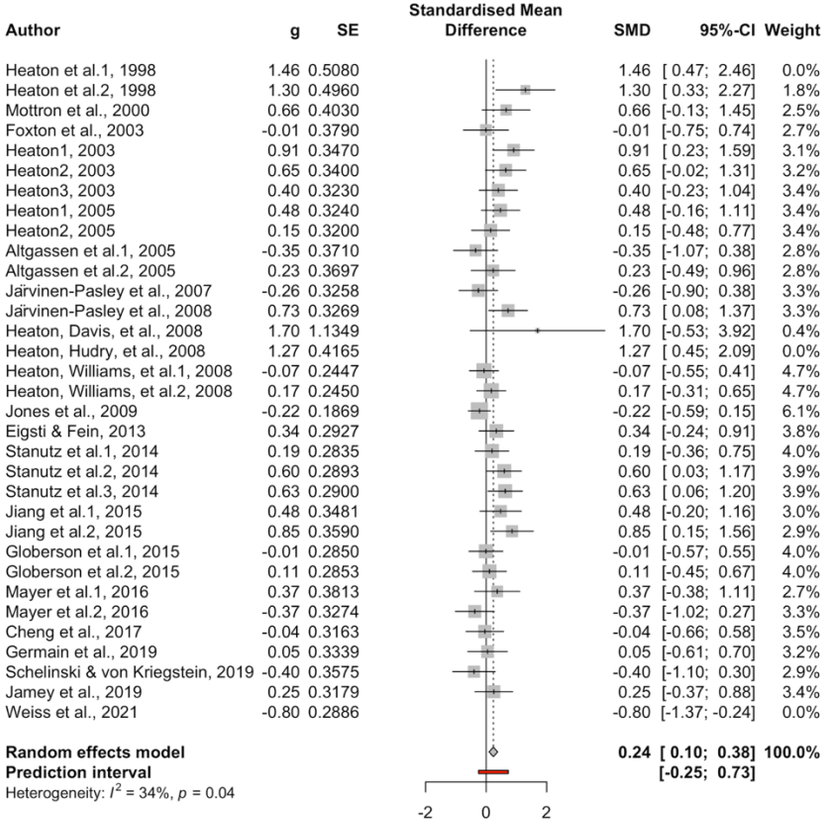
Supplemental Figure 1-4

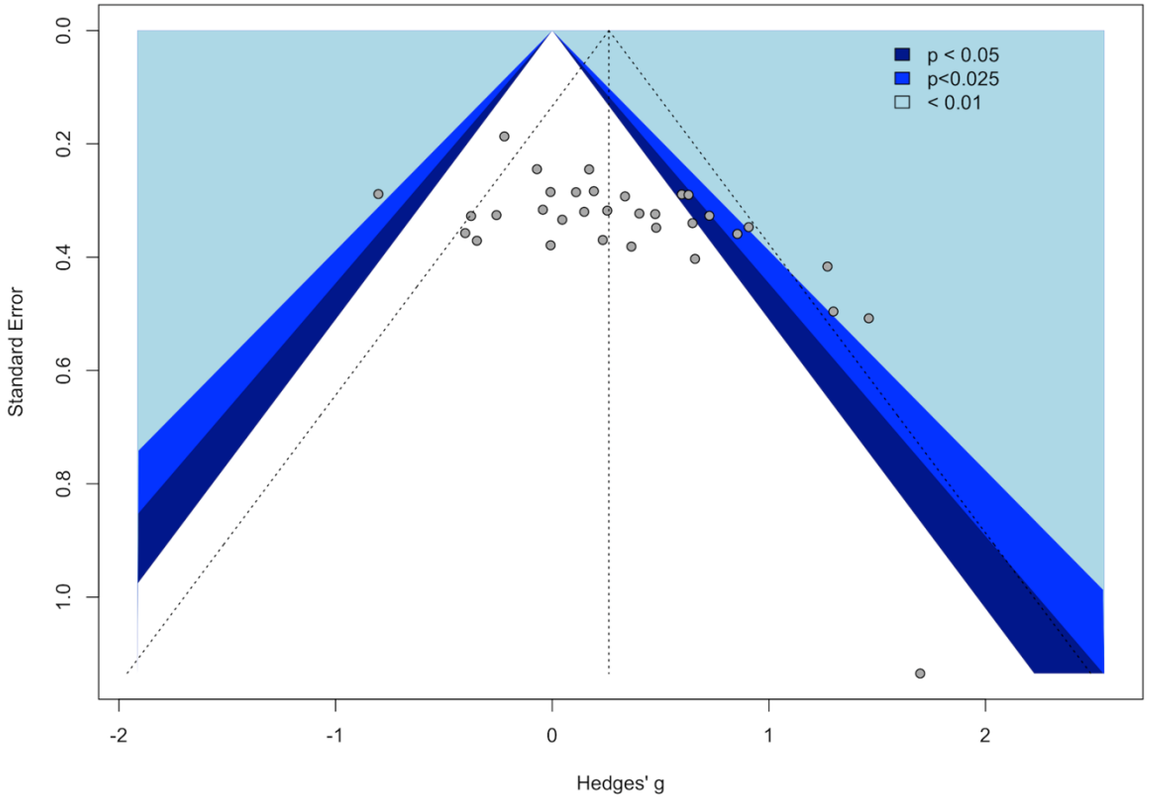
Supplemental Figure 1. Results of leave-one-out sensitivity analysis sorted by heterogeneity (I^2). The shaded area with a dashed line in its center represents the estimated pooled effect and its 95% confidence interval of included studies.



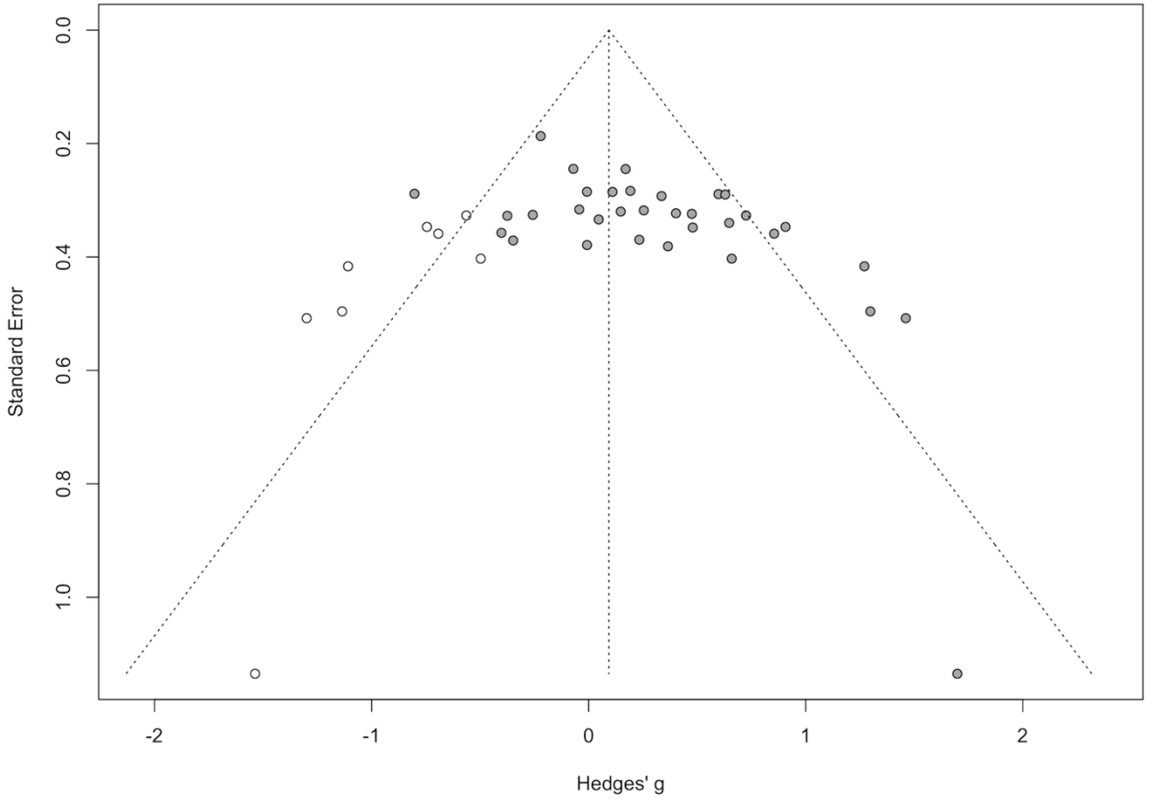
Supplemental Figure 2. Forest plot after removing outliers. Forest plot with effect size (Hedge'*g*) and confidence intervals for included studies after the removal of three outliers. Grey squares depict individual effect sizes of pitch processing in ASD compared with TD, with sizes indicating the relative weight of each study's effect size estimate to the analysis. Black diamond reflects the overall pooling effect across studies.



Supplemental Figure 3. Contour-enhanced meta-analysis funnel plots.



Supplemental Figure 4. Funnel plot. The effect size for each study (Hedges *g*) is plotted against the standard error. Filled circles indicate studies in the meta-analysis. Open circles indicate studies imputed in the trim-and-fill analysis.



Supplemental Table 1-4

Supplemental Table 1. PRISMA checklist.

Section/topic	#	Checklist item	Reported on page #
TITLE			
Title	1	Identify the report as a systematic review, meta-analysis, or both.	1
ABSTRACT			
Structured summary	2	Provide a structured summary including, as applicable: background; objectives; data sources; study eligibility criteria, participants, and interventions; study appraisal and synthesis methods; results; limitations; conclusions and implications of key findings; systematic review registration number.	3-4
INTRODUCTION			
Rationale	3	Describe the rationale for the review in the context of what is already known.	4-9
Objectives	4	Provide an explicit statement of questions being addressed with reference to participants, interventions, comparisons, outcomes, and study design (PICOS).	9
METHODS			
Protocol and registration	5	Indicate if a review protocol exists, if and where it can be accessed (e.g., Web address), and, if available, provide registration information including registration number.	N/A
Eligibility criteria	6	Specify study characteristics (e.g., PICOS, length of follow-up) and report characteristics (e.g., years considered, language, publication status) used as criteria for eligibility, giving rationale.	10-11
Information sources	7	Describe all information sources (e.g., databases with dates of coverage, contact with study authors to identify additional studies) in the search and date last searched.	12
Search	8	Present full electronic search strategy for at least one database, including any limits used, such that it could be repeated.	12

Section/topic	#	Checklist item	Reported on page #
Study selection	9	State the process for selecting studies (i.e., screening, eligibility, included in systematic review, and, if applicable, included in the meta-analysis).	12
Data collection process	10	Describe method of data extraction from reports (e.g., piloted forms, independently, in duplicate) and any processes for obtaining and confirming data from investigators.	11-12
Data items	11	List and define all variables for which data were sought (e.g., PICOS, funding sources) and any assumptions and simplifications made.	13
Risk of bias in individual studies	12	Describe methods used for assessing risk of bias of individual studies (including specification of whether this was done at the study or outcome level), and how this information is to be used in any data synthesis.	13
Summary measures	13	State the principal summary measures (e.g., risk ratio, difference in means).	13-14
Synthesis of results	14	Describe the methods of handling data and combining results of studies, if done, including measures of consistency (e.g., I^2) for each meta-analysis.	13-14
Risk of bias across studies	15	Specify any assessment of risk of bias that may affect the cumulative evidence (e.g., publication bias, selective reporting within studies).	14
Additional analyses	16	Describe methods of additional analyses (e.g., sensitivity or subgroup analyses, meta-regression), if done, indicating which were pre-specified.	14
RESULTS			
Study selection	17	Give numbers of studies screened, assessed for eligibility, and included in the review, with reasons for exclusions at each stage, ideally with a flow diagram.	15+ Figure 1
Study characteristics	18	For each study, present characteristics for which data were extracted (e.g., study size, PICOS, follow-up period) and provide the citations.	15-16 + Supplemental Table 2
Risk of bias within studies	19	Present data on risk of bias of each study and, if available, any outcome level assessment (see item 12).	15-17+ Supplemental

Section/topic	#	Checklist item	Reported on page #
			Table 2
Results of individual studies	20	For all outcomes considered (benefits or harms), present, for each study: (a) simple summary data for each intervention group (b) effect estimates and confidence intervals, ideally with a forest plot.	Supplemental Table 3
Synthesis of results	21	Present results of each meta-analysis done, including confidence intervals and measures of consistency.	16-17
Risk of bias across studies	22	Present results of any assessment of risk of bias across studies (see Item 15).	17
Additional analysis	23	Give results of additional analyses, if done (e.g., sensitivity or subgroup analyses, meta-regression [see Item 16]).	17-18
DISCUSSION			
Summary of evidence	24	Summarize the main findings including the strength of evidence for each main outcome; consider their relevance to key groups (e.g., healthcare providers, users, and policy makers).	18-35
Limitations	25	Discuss limitations at study and outcome level (e.g., risk of bias), and at review-level (e.g., incomplete retrieval of identified research, reporting bias).	35-36
Conclusions	26	Provide a general interpretation of the results in the context of other evidence, and implications for future research.	35-36
FUNDING			
Funding	27	Describe sources of funding for the systematic review and other support (e.g., supply of data); role of funders for the systematic review.	2

From: Moher D, Liberati A, Tetzlaff J, Altman DG, The PRISMA Group (2009). Preferred Reporting Items for Systematic Reviews and Meta-Analyses: The PRISMA Statement. *PLoS Med 6*(7): e1000097. doi:10.1371/journal.pmed1000097

Supplemental Table 2. Characteristics of studies included in quantitative synthesis.

							Participant information															
							ASD sample										TD sample					
	Year	First author	Country Language	Task paradigm	Stimulus modality: stimulus form	Response option	N (male%)	Sex ratio (M:F)	Age (S.D.)	Diagnosis criteria used	SCQ	IQ (WISC/WAIS)；PPVT/BPVS;RSPM/RM					N (male%)	Sex ratio (M:F)	Age (S.D.)	IQ (WISC/WAIS); PPVT/BPVS; RSPM/RM				
												FIQ	VIQ	PIQ/ NVIQ	PPVT/ BPVS	RSPM/ RM				FIQ	VIQ	PIQ/ NVIQ	PPVT/ BPVS	RSPM/ RM
1a	1998	Heaton	The UK/ English	PL	A: isolated tone V: animal picture	L	10 (100%)	10:0	9.9	Confirmed diagnosis	N/A	85.5	N/A	N/A	N/A	N/A	10 (100%)	10:0	8.1 (N/A)	N/A	N/A	N/A	N/A	N/A
1b	1998	Heaton	The UK/ English	PM	A: isolated tone V: animal picture	L	10 (100%)	10:0	9.9	Confirmed diagnosis	N/A	85.5	N/A	N/A	N/A	N/A	10 (100%)	10:0	8.1 (N/A)	N/A	N/A	N/A	N/A	N/A
2	2000	Mottron	Canada/ English	PC	A: melodic contour	C	13 (84.62 %)	11:2	16.73 (6.9)	ADI-R, DSM-IV	N/A	> 80	N/A	106.69 (11.13)	N/A	N/A	13 (100%)	13:0	15.33 (3.41)	>80	N/A	105.54 (11.24)	N/A	N/A
3	2003	Foxton	The UK/ English	PC	A: melodic contour	C	13 (84.62 %)	11:2	18.1 (2)	DSM-IV	N/A	87.9 (10.9)	92.5 (14.5)	83.9 (8.1)	N/A	N/A	15 (86.67%)	13:2	17.7 (2.2)	89.1 (10)	91.2 (10.9)	88 (10.7)	N/A	N/A
4a	2003	Heaton	The UK/ English	PM	A: isolated tone V: animal picture	L	14 (N/A)	N/A	10.75 (N/A)	Confirmed diagnosis	N/A	N/A	N/A	N/A	93	108	26	N/A	N/A	N/A	N/A	N/A	N/A	N/A
4b	2003	Heaton	The UK/ English	PCD	A: melodic contour	C	14 (N/A)	N/A	10.75 (N/A)	Confirmed diagnosis	N/A	N/A	N/A	N/A	93	108	26	N/A	N/A	N/A	N/A	N/A	N/A	N/A

4c	2003	Heaton	The UK/ English	PCD	A: melodic contour	C	15	N/A	10 (N/A)	Confirmed diagnosis	N/A	N/A	N/A	N/A	92	107	28	N/A	N/A	N/A	N/A	N/A	N/A	N/A
5a	2005	Heaton	The UK/ English	PDR	A: pitch interval	C	15	N/A	10 (N/A)	Confirmed diagnosis	N/A	N/A	N/A	N/A	92	107	28	N/A	N/A	N/A	N/A	N/A	N/A	N/A
5b	2005	Heaton	The UK/ English	PC	A: melodic contour	C	15	N/A	10 (N/A)	Confirmed diagnosis	N/A	N/A	N/A	N/A	92	107	28	N/A	N/A	N/A	N/A	N/A	N/A	N/A
6a	2005	Altgassen	The UK/ English	PL	A: isolated tone V: animal picture	L	17 (100%)	17:0	9.34 (1.12)	DSM-IV	N/A	N/A	N/A	N/A	80.94 (18.69)	N/A	13 (100%)	13:0	9.13 (1.68)	N/A	N/A	N/A	106.15 (11.54)	N/A
6b	2005	Altgassen	The UK/ English	PCD	A: melodic contour V: animal picture	L	17 (100%)	17:0	9.34 (1.12)	DSM-IV	N/A	N/A	N/A	N/A	80.94 (18.69)	N/A	13 (100%)	13:0	9.13 (1.68)	N/A	N/A	N/A	106.15 (11.54)	N/A
7	2007	Järvinen-Pasley	The UK/ English	PC	A: melodic contour	C	19 (84.21 %)	16:3	11.55 (2.34)	DSM-IV	N/A	N/A	N/A	N/A	92 (17.39)	94 (10.81)	19 (68.42%)	13:6	11.68 (2.21)	N/A	N/A	N/A	95 (16.03)	91 (14.31)
8	2008	Järvinen-Pasley	The UK/ English	PCI	A: melodic contour V: picture of pitch contour	C	20 (85%)	17:3	12.55 (2.57)	DSM-IV	N/A	N/A	N/A	N/A	84 (19.83)	87 (14.43)	20 (80%)	16:4	12.03 (2.62)	N/A	N/A	N/A	83 (20.11)	84 (16.12)
9	2008	Heaton, Davis	The UK/ English	PN	A: isolated tone	C	1 (100%)	1:0	35	Confirmed diagnosis	N/A	N/A	N/A	N/A	N/A	N/A	9	N/A	32.89 (14.31)	N/A	N/A	N/A	N/A	N/A
10	2008	Heaton, Hudry	The UK/ English	PHD	A: melodic contour	C	14 (100%)	14:0	10.5 (3.96)	ICD-10	N/A	N/A	N/A	N/A	82.36 (18)	N/A	14 (92.86%)	13:1	10.52 (2.37)	N/A	N/A	N/A	77.71 (13.94)	N/A
11a	2008	Heaton, Walliam	The UK/ English	PDR	A: pitch interval	C	32	N/A	14.5 (2.25)	Confirmed diagnosis	N/A	N/A	N/A	N/A	N/A	78.56 (16.19)	35	N/A	14 (1.5)	N/A	N/A	N/A	N/A	79.54 (15.48)

11b	2008	Heaton, Walliam	The UK/ English	PM	V: picture of staircase A: isolated tone V: picture of staircase	C	32	N/A	14.5 (2.25)	Confirmed diagnosis	N/A	N/A	N/A	N/A	N/A	78.56 (16.19)	35	N/A	14 (1.5)	N/A	N/A	N/A	N/A	79.54 (15.48)
12	2009	Jones	The UK/ English	PHD	A: pitch interval	C	72 (91.67 %)	66:6	15.5 (0.475)	ICD-10, ADOS-G	N/A	87.79 (17.32)	84.31 (17.41)	93.36 (17.44)	N/A	N/A	48 (95.83%)	46:2	15.5 (0.49)	89.33 (21.53)	87.25 (19.70)	92.83 (21.15)	N/A	N/A
13	2013	Eigsti	USA/ English	PHD	A: pitch interval	C	29 (86.21 %)	25:4	12.3 (2.3)	ADOS, ADI-R	23 (5.9)	N/A	104 (13)	111 (14)	N/A	N/A	20 (85%)	17:3	13.7 (2.9)	N/A	113 (12)	115 (12)	N/A	N/A
14a	2014	Stanutz	Canada/ English	PHD	A: pitch interval	C	25 (76%)	19:6	10.67 (N/A)	DSM-IV	N/A	>70	N/A	N/A	N/A	N/A	25 (44%)	11:14	10.42 (N/A)	N/A	N/A	N/A	N/A	N/A
14b	2014	Stanutz	Canada/ English	PC	A: melodic contour	C	25 (76%)	19:6	10.67 (N/A)	DSM-IV	N/A	>70	N/A	N/A	N/A	N/A	25 (44%)	11:14	10.42 (N/A)	N/A	N/A	N/A	N/A	N/A
14c	2014	Stanutz	Canada/ English	PM	A: melodic contour	C	25 (76%)	19:6	10.67 (N/A)	DSM-IV	N/A	>70	N/A	N/A	N/A	N/A	25 (44%)	11:14	10.42 (N/A)	N/A	N/A	N/A	N/A	N/A
15a	2015	Jiang	China/ Mandarin	PC	A: melodic contour	C	17	N/A	9.41 (3.03)	DSM-5 (2013)	24.29 (6.78)	N/A	N/A	N/A	116 .06 (27.17)	119.12 (13.77)	17	N/A	9.16 (2.76)	N/A	N/A	N/A	148.71 (16.66)	122.24 (8.5)
15b	2015	Jiang	China/ Mandarin	PCI	A: melodic contour V: picture of pitch contour	C	17	N/A	9.41 (3.03)	DSM-5 (2013)	24.29 (6.78)	N/A	N/A	N/A	116 .06 (27.17)	119.12 (13.77)	17	N/A	9.16 (2.76)	N/A	N/A	N/A	148.71 (16.66)	122.24 (8.5)

16a	2015	Globerson	Israel/ Hebrew	PDR	A: pitch interval	C	20 (100%)	20:0	28.8 (6.8)	ADOS	N/A	N/A	N/A	N/A	N/A	N/A	32 (100%)	32:0	26.2 (3.5)	N/A	N/A	N/A	N/A	N/A
16b	2015	Globerson	Israel/ Hebrew	PHD	A: pitch interval	C	20 (100%)	20:0	28.8 (6.8)	ADOS	N/A	N/A	N/A	N/A	N/A	N/A	32 (100%)	32:0	26.2 (3.5)	N/A	N/A	N/A	N/A	N/A
17a	2016	Mayer	The UK/ English	PHD	A: melodic contour	C	14 (92.86 %)	13:1	13.8 (1.96)	Confirmed diagnosis	N/A	N/A	N/A	N/A	71.50 (22.94)	N/A	14 (100%)	14:0	13.53 (0.88)	N/A	N/A	N/A	100.07 (16.14)	N/A
17b	2016	Mayer	The UK/ English	PHD	A: melodic contour	C	19 (78.95 %)	15:4	40.23 (11.33)	DSM-IV, ADOS	N/A	113.37 (15.27)	111.16 (15.57)	112.95 (12.97)	105.63 (12.07)	N/A	19 (78.95%)	15:4	38.26 (9.05)	N/A	N/A	N/A	106.05 (10.24)	N/A
18	2017	Cheng	China/ Cantonese	PHD	A: pitch interval	C	20 (85%)	17:3	25 (3.22)	DSM-III, ICD-10, ADOS-2	N/A	N/A	N/A	N/A	N/A	N/A	20 (85%)	17:3	24 (3.6)	N/A	N/A	N/A	N/A	N/A
19	2019	Germain	Canada/ English	PDR	A: pitch interval	C	17 (100%)	17:0	13.7 (2.3)	DSM-IV, ADOS	N/A	110.8 (18.3)	N/A	N/A	N/A	N/A	19 (42.11%)	8:11	12.9 (2.3)	115.8 (8.1)	N/A	N/A	N/A	N/A
20	2019	Schelinski	German/ Germany	PC	A: melodic contour	C	16 (81.25 %)	13:3	33.75 (10.12)	ICD-10, ADOS, ADI-R	20.33 (5.7)	110.31 (13.79)	110.75 (12.35)	107.38 (17.55)	N/A	N/A	16 (81.25%)	13:3	33.69 (9.58)	111.5 (10.97)	108.75 (12.59)	112.69 (9.59)	N/A	N/A
21	2019	Jamey	Canada/ English	PC	A: melodic contour	C	19 (100%)	19:0	10.4 (1.6)	ADOS, ADI-R	19.5 (5.2)	118.6 (14.5)	114.8 (13.3)	119.4 (17)	N/A	N/A	21 (100%)	21:0	9.8 (1.8)	122.2 (11.2)	115.1 (12)	122.9 (15.41)	N/A	N/A
22	2021	Weiss	Canada/ English	PM	A: melodic contour	C	26 (84.62 %)	22:4	11.1 (1.4)	DSM-IV	N/A	N/A	N/A	N/A	N/A	N/A	26 (88.46%)	23:3	10.7 (1.5)	N/A	N/A	N/A	N/A	N/A

Note: (1) Abbreviations: PC = pitch contour discrimination task; PCI = pitch contour identification task; PCD = pitch chord disembedding task; PDR = pitch direction recognition task; PHD = pitch height discrimination task; PL: pitch labelling task; PM = pitch memory task; PN= pitch naming task; A = auditory; V = visual; C = choice; L = labeling;

ASD = autism spectrum disorder; TD = typically developing people; DSM = Diagnostic and Statistical Manual of Mental Disorders; ADOS = Autism Diagnostic Observation Schedule; ADI-R = Autism Diagnostic Interview-Revised; ICD = International and Statistical Classification of Diseases and Related Health Problems; WAIS = Wechsler Adult Intelligence Scale/Wechsler Abbreviated Scale of Intelligence; WISC = Wechsler Intelligence Scale for children; FIQ = Full-Scale IQ; VIQ = Verbal IQ; PIQ = Performance IQ; PPVT = Peabody Picture Vocabulary Test; BPVS = British Picture Vocabulary Scale; RSPM = Raven's Standard Progressive Matrices; RM = Raven's Matrices; M = male; F = female; SCQ = Social Communication Questionnaire; N/A = not available; M = mean value; SD = standard deviation. (2) Information on study characteristics involves only the tasks included into the review.

Supplemental Table 3. Overall pitch processing performance (accuracy) of participants with ASD.

	Year	First author	Hedges *g* (Variance)	SE (*g*)	95% CI	Type of participants (number)	Task paradigm	Quality index score	Main Results		
									Mean (SD)*		Effect of group
									ASD	TD	
1a	1998	Heaton	1.461 (0.2582)	0.508	[0.465,2.457]	ASD (10)-TD (10)	PL	0.82	11.7	5.8	▲
1b	1998	Heaton	1.2978 (0.2459)	0.496	[0.326,2.270]	ASD (10)-TD (10)	PM	0.82	8.9	4	▲
2	2000	Mottron	0.6591 (0.1628)	0.403	[-0.132,1.450]	ASD (13)-TD (13)	PC	0.91	67.92	56.64	●
3	2003	Foxton	-0.0074 (0.1436)	0.379	[-0.75,0.735]	ASD (13)-TD (15)	PC	0.86	12.222	12.24	●
4a	2003	Heaton	0.907 (0.121)	0.347	[0.226,1.288]	ASD (14)-TD (26)	PM	0.81	11.21	6.355	▲
4b	2003	Heaton	0.6474 (0.1153)	0.340	[-0.018,1.313]	ASD (14)-TD (26)	PCD	0.81	7.5	4	▲
4c	2003	Heaton	0.4022 (0.1043)	0.323	[-0.231,1.035]	ASD (15)-TD (28)	PCD	0.81	F = 1.64		●
5a	2005	Heaton	0.4753 (0.1051)	0.324	[-0.16,1.111]	ASD (15)-TD (28)	PDR	0.81	12.49	11.35	●
5b	2005	Heaton	0.1477 (0.1026)	0.320	[-0.48,0.776]	ASD (15)-TD (28)	PC	0.81	6.33	6.09	●
6a	2005	Altgassen	-0.3478 (0.1379)	0.371	[-1.076,0.380]	ASD (17)-TD (13)	PL	0.86	3.29	4.23	●
6b	2005	Altgassen	0.2333 (0.1367)	0.370	[-0.491,0.958]	ASD (17)-TD (13)	PCD	0.86	3.15	2.73	●
7	2007	Järvinen-Pasley	-0.2573 (0.1062)	0.326	[-0.896,0.381]	ASD (19)-TD (19)	PC	0.86	t = − 0.81		●
8	2008	Järvinen-Pasley	0.7253 (0.1068)	0.327	[0.085,1.366]	ASD (20)-TD (20)	PCI	0.86	t = 2.34		▲
9	2008	Heaton, Davis	1.6986 (1.2879)	1.135	[-0.526,3.923]	ASD (1)-TD (9)	PN	0.68	152	117.21	▲
10	2008	Heaton, Hudry	1.2704 (0.1734)	0.417	[0.454,2.087]	ASD (14)-TD (14)	PHD	0.91	34	24.9	▲
11a	2008	Heaton, Walliam	-0.0704 (0.0599)	0.245	[-0.550,0.409]	ASD (32)-TD (35)	PDR	0.91	12.27	12.85	●
11b	2008	Heaton, Walliam	0.1703 (0.060)	0.245	[-0.310,0.651]	ASD (32)-TD (35)	PM	0.91	15.34	13.78	●
12	2009	Jones	-0.2209 (0.0349)	0.187	[-0.587,0.145]	ASD (72)-TD (48)	PHD	0.95	1.02	1.12	●
13	2013	Eigsti	0.336 (0.0857)	0.293	[-0.238,0.910]	ASD (29)-TD (20)	PHD	0.91	F = 1.38		▲
14a	2014	Stanutz	0.1922 (0.0804)	0.284	[-0.364,0.748]	ASD (25)-TD (25)	PHD	0.86	9.06	8.12	●

	Year	First author	Hedges *g* (Variance)	SE (*g*)	95% CI	Type of participants (number)	Task paradigm	Quality index score	Main Results		
									Mean (SD)*		Effect of group
									ASD	TD	
14b	2014	Stanutz	0.598 (0.0837)	0.289	[0.031,1.165]	ASD (25)-TD (25)	PC	0.86	9.76	8.12	▲
14c	2014	Stanutz	0.6292 (0.0841)	0.290	[0.061,1.198]	ASD (25)-TD (25)	PM	0.86	12.25	10.17	▲
15a	2015	Jiang	0.4795 (0.1212)	0.348	[-0.203,1.162]	ASD (17)-TD (17)	PC	0.77	F = 2.05		●
15b	2015	Jiang	0.8545 (0.1289)	0.359	[0.151,1.558]	ASD (17)-TD (17)	PCI	0.77	F = 6.51		▲
16a	2015	Globerson	-0.0078 (0.0813)	0.285	[-0.567,0.551]	ASD (20)-TD (32)	PDR	0.91	44.9	45.4	●
16b	2015	Globerson	0.1098 (0.0814)	0.285	[-0.449,0.669]	ASD (20)-TD (32)	PHD	0.91	25.7	21.47	●
17a	2016	Mayer	0.3654 (0.1454)	0.381	[-0.382,1.113]	ASD (14)-TD (14)	PHD	0.95	32	29	●
17b	2016	Mayer	-0.3747 (0.1072)	0.327	[-1.016,0.267	ASD (19)-TD (19)	PHD	0.95	32.52	35.21	●
18	2017	Cheng	-0.0432 (0.1)	0.316	[-0.663,0.577]	ASD (20)-TD (20)	PHD	0.91	21.91	22.14	●
19	2019	Germain	0.0462 (0.1115)	0.334	[-0.608,0.701]	ASD (17)-TD (19)	PDR	0.86	F = 0.02		●
20	2019	Schelinski	-0.4108 (0.1278)	0.358	[-1.111,0.290]	ASD (16)-TD (16)	PC	0.91	44.43	46.202	●
21	2019	Jamey	0.254 (0.1011)	0.318	[-0.369,0.877]	ASD (19)-TD (21)	PC	0.86	F = 0.67		●
22	2021	Weiss	-0.8025 (0.0833)	0.289	[-1.368, -0.237]	ASD (26)-TD (26)	PM	0.91	0.45	0.63	▲

Note: (1) Negative effect size Hedge's *g* indicates lower accuracy in ASD participants compared to TD controls; (2) ASD = autism spectrum disorder; TD = typical developing people; ▲ = significant difference ($p < 0.05$); ● = non-significant difference; (3) The data were collected based on the accuracy rate reported in the included studies.

**F* values or *t* values are presented when means and SDs were not reported.

Supplemental Table 4. Results of the meta-regression analyses.

Moderator	Coefficient (β)	95% CI	p value
Participant-related			
Mean age	-0.02	-0.04 to -0.004	0.02*
Percentage of men	1.17	-1.20 to 3.54	0.33
Full-scale IQ	-0.02	-0.05 to 0.01	0.18
Verbal IQ			
WASI	0.005	-0.02 to 0.03	0.65
PPVT/BPVS	0.001	-0.02 to 0.02	0.91
Non-verbal IQ			
WASI	0.009	-0.02 to 0.03	0.51
RSPM/RM	0.01	0.001 to 0.03	0.03*
AQ	-0.04	-0.10 to 0.02	0.18
SCQ	0.14	-0.02 to 0.29	0.08
Language background			
Non-tonal		Reference	
tonal	0.16	-0.42 to 0.74	0.58
Methodology-related			
Task type			
PC		Reference	
PCD	0.25	-0.41 to 0.91	0.46
PCI	0.60	-0.17 to 1.37	0.13
PDR	-0.09	-0.66 to 0.49	0.77
PHD	-0.03	-0.51 to 0.44	0.89
PL	0.21	-0.65 to 1.06	0.64
PM	0.15	-0.40 to 0.70	0.59
PN	1.51	-0.85 to 3.87	0.21

Stimulus form			
Isolated tone		Reference	
Pitch interval	-0.53	-1.05 to -0.01	0.046*
Melodic contour	-0.32	-0.81 to 0.16	0.19
Stimulus modality			
Auditory		Reference	
Audiovisual	0.30	-0.67 to 0.67	0.11
Number of trials	-0.0004	-0.004 to 0.003	0.83
Number of answer options	0.04	-0.06 to 0.14	0.46
Absolute pitch/Relative pitch			
Absolute pitch		Reference	
Relative pitch	-0.25	-0.60 to 0.09	0.15
Study-related			
Year of publication	-0.04	-0.06 to -0.01	0.004*
Region			
Asia		Reference	
North America	-0.03	-0.57 to 0.51	0.92
Europe	0.03	-0.45 to 0.51	0.90

Note: CI = confidence interval; PC = pitch contour discrimination task; PCI = pitch contour identification task; PCD = pitch chord disembedding task; PDR = pitch direction recognition task; PHD = pitch height discrimination task; PL= pitch labelling task; PM = pitch memory task; PN= pitch naming task; **$p < 0.05$.