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New Developments in Rorschach-Based Behavioral Assessment
Gregory J. Meyer and Donald J. Viglione

Why the Rorschach?

- The Rorschach? Really?

- Why? Because the task provides a standardized, in vivo sample of perceptual and verbal problem-solving behavior
  - Inkblots were artistically created and enhanced, carefully selected, and pilot-tested
  - Stimuli are structured to provide multiple suggestive but incomplete or imperfect perceptual likenesses that form competing visual images

- The task is to examine the stimuli and answer the question: "What might this be?"
  - The answer provides
    - a visual attribution
    - a verbal explanation or elaboration
    - a range of behaviors interacting with the stimuli and examiner

Why the Rorschach?

- These verbal, perceptual, and interactive behaviors can be:
  - Coded and compared to normative expectations
  - Understood as direct but unique observation of task behavior
  - Analyzed idiographically for content, imagery, and sequence

- Administering the task allows the examiner to observe what the person does, not learn what he thinks he does

- Thus, the task is a reasonably brief, portable, behavioral experiment that can be used in various clinical settings
  - e.g., a private office, hospital room

Why the Rorschach?

- As a behavioral task, the most valid inferences are those in which the behaviors observed and coded in the microcosm of the task generalize to parallel mental, verbal, perceptual, and interactive behaviors in the external environment

- The place of Rorschach data in an assessment
  - Like other performance tasks, coded behaviors may reflect implicit qualities not recognized by the respondent
  - Rorschach scores can thus complement consciously recognized self-report characteristics
  - Because Rorschach scores are at best just modestly correlated with self-report data, **valid** scores provide unique information about personality that can add incrementally and meaningfully to self-reported information

Why R-PAS?

- R-PAS = Rorschach Performance Assessment System
  - Don Viglione, Joni Mihura, Bob Erard, Phil Erdberg, & me
    - Disclosure: We have a financial stake in the system
  - Four of us worked on Exner's Research Council for the Comprehensive System (CS), which ran from 1997-2006
  - R-PAS significantly extends the work began in that group

- Our goal is to have a clinically rich, evidence-based, logically transparent, user-friendly, internationally-focused system available for applied practice

- Unlike the CS, R-PAS can and will evolve in response to evidence and needs

R-PAS Highlights

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WASHINGTON, DC

- Four Criteria for Variable Selection:
    – Empirical support in validity meta-analysis and synthesis of other research findings
    – Clear conceptual link between coded response processes and interpretation
        - **Response processes** = psychological operations involved in producing the coded behavior
    – Support from clinical experience based on a large survey of experienced practitioners
    – Parsimony

Main Validity Meta-analysis

- Review of 70 major CS variables
  - Mihura, Meyer, Dumitrascu, & Bombel (2011)
  - Identified all instances of any hypothesized association
  - Reliably classified their construct relevance ($\kappa = .79$)
  - # of findings =1,229; total $N = 20,363$
- As expected, scores are more associated with externally-assessed criteria than self-report criteria:
  - Self-assessed $r = .06$
  - Externally-assessed $r = .24$
    - e.g., observer ratings, psychiatric diagnosis
- As expected, validity varies by score; e.g.,
  - Good: X-%, WSum6, Lambda, EA, MOR
  - Poor: Zd, PSV, Egocentricity, Isolation Index

R-PAS Highlights

- The Four Variable Selection Criteria Lead to:
  - 13 Response-Level Coding Categories
  - 60 Protocol-Level Scores that are Profiled
  - 2 Levels of Emphasis in the Profiled Output
    - **Page 1** = Primary interpretive emphasis
    - **Page 2** = Tentative interpretive inferences
- Relative to the CS:
  - Some scores were dropped
    - e.g., Hx, PSV
  - Some were reconfigured
    - e.g., no longer code form dominance for shading
  - Six new codes added
    - SR, SI, MAH & MAP, AGC, ODL

What is the card angle?	Where is it seen?	Is white space used? How?		What is seen?	Are any objects meaningfully related?	Are all objects in the percept vague?	Are there two identical objects?	How well does it fit the blot?	Do many people see it?	What makes it look like that?	Are there issues with thought processes?	What themes are present?	Were steps taken to manage R?
Card Orientation	Location*	Space Reversal	Space Integration	Content Class*	Synthesis	Vagueness	Pair	Form Quality*	Popular	Determinants*	Cognitive Codes	Thematic Codes	R-Optimized
@	W,D,Dd	SR	SI	H An	Sy	Vg	2	o, u, -, n	P	M	DV1,DV2	ABS	Pr,Pu
< v >	Loc#(s)			(H) Art						FM	DR1,DR2	PER	
				Hd Ay						m	INC1,INC2	COP	
				(Hd) Bl						(a,p,a-p)	FAB1,FAB2	MAH	
				A Cg						FC, CF, C	PEC	AGM	
				(A) Ex						C'	CON	AGC	
				Ad Fi						Y		MOR	
				(Ad) Sx						T		MAP	
				NC						V		GHR, PHR	
										FD		ODL	
										r			
										F			

*Scored for every response

More than one row of Determinants, Content, Cognitive, or Thematic codes can be assigned to each response.

Entries on the same row within a column are mutually exclusive options; only one can be assigned to a response.

R-PAS Code Sequence

Name: RM **Protocol ID:** 1 **Age:** 25 **Gender:** Male **Education:** NA

Card	#	Or	Loc	Loc #	SR	SI	Content	Sy	Vg	2	FQ	P	Determinants	Cognitive	Thematic	HR	ODL (RP)	R-Opt
I	1		W			SI	A				o		F		PER			Pr
	2	v	W				NC				u		F					
II	3		Dd	24,5,6,4		SI	NC	Sy			u		V					
	4		Dd	99,4,5		SI	NC	Sy		2	u		V					
	5	v	W			SI	(Hd),NC	Sy			-		mp			PH		
III	6		D	9			(H),Art	Sy		2	o		Mp			GH		
	7		D	9,7			(H),(Hd)	Sy		2	o		Ma		COP,AGM,MAP	PH		
	8	v	D	1,3,24		SI	(Hd),Cg	Sy			o		F			GH		
IV	9		D	7			(H)				o	P	FD		AGC	GH		
	10	v	W				(A)				u		FMa,FD					
V	11		W				A				o		F					
	12	v	W				A				o		F					
VI	13		W				(H),Ay,NC	Sy		2	u		Mp,V	INC1		PH	ODL	
	14		Dd	99			(Hd)				-		Y			PH		
	15		Dd	99			NC		Vg		u		Y		MOR			
VII	16		W				(Hd),Art,Cg	Sy		2	o	P	Mp,mp		MOR	PH	ODL	
	17	v	W			SI	NC				o		Y,V					
VIII	18		W				A,NC	Sy		2	o	P	FMa		AGC		ODL	
	19		D	8			Ay,NC	Sy		2	o		FC	DV1	MOR,MAP			
	20	v	W				Cg	Sy			u		FD					
IX	21		Dd	3.26.99			(H),(Hd),Cg,NC	Sy		2	u	P	Mp,mp,Y	FAB1	AGC	PH		
	22		Dd	1,29	SR		(Hd),Ay,NC	Sy		2	-		CF			PH		
X	23		D	14,8			A,NC	Sy		2	-		FD	FAB1	AGC			
	24		Dd	9,6,99		SI	NC	Sy		2	u		V					

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R-PAS Protocol Level Counts & Calculations

C-ID: Case RM   **P-ID:** 7   **Age:** ~25   **Gender:** Male   **Education:** 17+

Section	Counts		Counts		Calculations	
Responses &	R	= 24	R8910	= 7	**R8910%**	= 29%
Administration	Pr	= 1	Pu	= 0		
	CT	= 7				
Location	W	= 11	D	= 6	**W%**	= 46%
	Dd	= 7	WD	= 17	**Dd%**	= 29%
Space	SR	= 1	SI	= 7		
	AnyS	= 8				
Content	H	= 0	An	= 0	SumH	= 12
	(H)	= 5	Art	= 2	NPH	= 12
	Hd	= 0	Ay	= 3	NPH/SumH	= 100%
	(Hd)	= 7	Bl	= 0		
	A	= 5	Cg	= 4		
	(A)	= 1	Ex	= 0		
	Ad	= 0	Fi	= 0		
	(Ad)	= 0	Sx	= 0		
			NC	= 13		

Object Qualities						
Synthesis	Sy	= 15			Sy%	= 62%
Vagueness	Vg	= 1			Vg%	= 4%
Pair	2	= 11				

Form Quality and Popular						
	FQo	= 11	WDo	= 11	FQo%	= 46%
	FQu	= 9	WDu	= 4	FQu%	= 38%
	FQ-	= 4	WD-	= 2	FQ-%	= 17%
	FQn	= 0	WDn	= 0	WD-%	= 12%
	M-	= 0	P	= 4		

Section	Counts		Counts		Calculations	
Determinants	M	= 5	FC	= 1	WSumC	= 1.5
Blends:	FM	= 2	CF	= 1	SumC	= 2
FMa,FD	m	= 3	C	= 0	(CF+C)/SumC	= NA
Mp,V	C'	= 0	Y	= 4	MC	= 6.5
Mp,mp						
Y,V	T	= 0	V	= 5	M/MC	= 77%
Mp,mp,Y	r	= 0	FD	= 4	YTVC'	= 9
			F	= 5	mY	= 7
					F%	= 21%
					PPD	= 14
					MC - PPD	= -7.5
	a	= 3	p	= 7	p/(a+p)	= 70%
	Ma	= 1	Mp	= 4	Mp/(Ma+Mp)	= 80%
	Blend	= 5	CBlend	= 0	Blend%	= 21%

Cognitive Codes							Calculations	
	DV1	(1) =	1	DV2	(2) =	0	WSumCog	= 11
	INC1	(2) =	1	INC2	(4) =	0	SevCog	= 0
	DR1	(3) =	0	DR2	(6) =	0	Lev2Cog	= 0
	FAB1	(4) =	2	FAB2	(7) =	0		
	PEC	(5) =	0	CON	(7) =	0		

Thematic Codes						
	ABS	= 0	PER	= 1	MAHP	= 2
	COP	= 1	MAH	= 0	MAP/MAHP	= NA
	AGM	= 1	AGC	= 4	GPHR	= 10
	MOR	= 3	MAP	= 2	PHR/GPHR	= 70%
	ODL	= 3			ODL%	= 12%
	GHR	= 3	PHR	= 7		

Other Calculations						
	IntCont	= 5	TP-Comp	= 1.2	Complexity	= 109
	CritCont%	= 17%	V-Comp	= 7.7	LSO	= 48
	EII-3	= 0.8	SC-Comp	= 7.0	Cont	= 36
					Det	= 25

Counts and Calculations in Bold Font are on the Summary Scores and Profiles Pages

R-PAS Summary Scores and Profiles – Page 1

C-ID: Case RM					P-ID: 7	Age: ~25		Gender: Male		Education: 17+	

Domain/Variables	Raw Scores	Raw		Cplx. Adj.		Standard Score Profile R-Optimized	Abbr.
		%ile	SS	%ile	SS		
Admin. Behaviors and Obs.						60 70 80 90 100 110 120 130 140	
Pr	1	62	104			105 (O)	Pr
Pu	0	40	96			96 (O)	Pu
CT (Card Turning)	7	75	110			110 (O)	CT
Engagement and Cog. Processing						60 70 80 90 100 110 120 130 140	
Complexity	109	91	120			120 (①)	Cmplx
R (Responses)	24	55	102	14	83	102 (O)	R
F% [Lambda=0.26] (Simplicity)	21%	12	83	36	95	83 (①)	F%
Blend	5	66	106	15	85	106 (O)	Bln
Sy	15	97	128	81	113	128 (●)	Sy
MC	6.5	47	99	3	72	99 (O)	MC
MC - PPD	-7.5	14	84	16	85	84 (①)	MC-PPD
M	5	72	109	24	89	109 (O)	M
M/MC [5/6.5]	77%	88	118	85	115	118 (①)	M Prp
(CF+C)/SumC [1/2]	NA						CFC Prp
Perception and Thinking Problems						60 70 80 90 100 110 120 130 140	
EII-3	0.8	89	118	84	115	118 (①)	EII
TP-Comp (Thought & Percept. Com...)	1.2	78	111	65	106	111 (①)	TP-C
WSumCog	11	74	110	59	103	110 (①)	WCog
SevCog	0	35	94	35	94	94 (O)	Sev
FQ-%	17%	83	114	77	111	114 (①)	FQ-%
WD-%	12%	76	110	59	103	110 (O)	WD-%
FQo%	46%	16	85	21	87	85 (①)	FQo%
P	4	22	88	20	87	88 (①)	P
Stress and Distress						60 70 80 90 100 110 120 130 140	
m	3	81	113	46	98	113 (①)	m
Y	4	91	120	83	114	120 (①)	Y
MOR	3	87	117	79	113	117 (①)	MOR
SC-Comp (Suicide Concern Comp.)	7.0	93	122	81	114	122 (●)	SC-C
Self and Other Representation						60 70 80 90 100 110 120 130 140	

R-PAS Summary Scores and Profiles – Page 2

C-ID: Case RM					P-ID: 7	Age: ~25	Gender: Male	Education: 17+

Domain/Variables	Raw Scores	Raw %ile	Raw SS	Cplx. Adj. %ile	Cplx. Adj. SS	Standard Score Profile R-Optimized	Abbr.
Engagement and Cog. Processing						60 70 80 90 100 110 120 130 140	
W%	46%	63	105	42	97	○ @105	W%
Dd%	29%	86	116	90	119	⊕ @116	Dd%
SI (Space Integration)	7	97	127	95	125	⊕ @127	SI
IntCont	5	86	116	75	110	⊕ @116	IntC
Vg%	4%	46	99	49	100	○ @99	Vg%
V	5	>99	140	99	136	● @140	V
FD	4	97	129	95	126	⊕ @129	FD
R8910%	29%	29	92	36	95	○ @92	R8910%
WSumC	1.5	21	88	2	70	⊕ @88	WSC
C	0	36	95	36	95	○ @95	C
Mp/(Ma+Mp) [4/5]	80%	93	122	93	122	⊕ @122	Mp Prp
Perception and Thinking Problems						60 70 80 90 100 110 120 130 140	
FQu%	38%	74	110	68	107	○ @110	FQu%
Stress and Distress						60 70 80 90 100 110 120 130 140	
PPD	14	82	114	48	100	⊕ @114	PPD
YTVC'	9	89	118	72	109	⊕ @118	YTVC'
CBlend	0	28	91	28	91	○ @91	CBlnd
C'	0	14	84	14	84	⊕ @84	C'
V	5	>99	140	99	136	● @140	V
CritCont% (Critical Contents)	17%	46	98	30	92	○ @98	CrCt
Self and Other Representation						60 70 80 90 100 110 120 130 140	
SumH	12	96	126	82	113	⊕ @126	SumH
NPH/SumH [12/12]	100%	96	127	98	138	⊕ @127	NPH Prp
r (Reflections)	0	36	95	36	95	○ @95	r
p/(a+p) [7/10]	70%	89	118	89	119	⊕ @118	p Prp
AGM	1	75	110	75	110	○ @110	AGM
T	0	28	91	28	91	○ @91	T
PER	1	72	109	72	109	○ @109	PER
An	0	16	85	16	85	⊕ @85	An

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R-PAS Highlights

- R-Optimized Administration
  - Before Test: Ask for "two, maybe three responses"
  - During Test: Prompt for 2, Pull after 4 & Give reminder
  - Designed to have R in range of about 18 to 28
  - Secondarily allows better ability to document when people have difficulty giving or inhibiting responses
- Initial Research:
  - Greatly reduced short & long records; so smaller SD for R
  - Eases the administration task
    - Virtually no re-administration
  - Very little effect on other variables
  - Allows norms to better fit all protocols
    - And thus are better able to identify deviations from norms
  - Potential for less examiner variation across sites

R-PAS Highlights

- FQ tables developed with internationally collected data on Fit and Frequency
  - Fit: Judgments of how easily objects are seen
  - Frequency: How often objects are spontaneously reported
  - Tables are quite different from CS
  - Initial data show validity on a par with CS but should have greater international utility
  - FQ tables organized in a user-friendly format

R-PAS Highlights

- Visual display of profiled results
  - Places all scores on a common metric
  - Convert raw scores to percentiles
    - Does not alter the underlying distributions
  - Convert percentiles to normalized Standard Score equivalents with M = 100, SD = 15
    - Slightly modifies the distributions to emphasize deviations at the extremes and de-emphasize them in the average range

- Complexity-Adjusted Scores
  - Provides a way to see what is atypical given a very complex or a very simple record

Normative Translation Examples

Variable	Raw Score	Percentile	Normal SS Equivalent
Dd	1	15.5	85
	3	47.5	99
	6	80.1	113
Texture	0	27.5	91
	1	68.4	107
	2	88.5	118
FQ-%	03%	15.8	85
	09%	52.1	101
	16%	84.0	115

R-PAS Summary Scores and Profiles – Page 1

C-ID: Case RM					P-ID: 7		Age: ~25		Gender: Male		Education: 17+		
Domain/Variables	**Raw Scores**	**Raw**		**Cplx. Adj.**		**Standard Score Profile R-Optimized**								**Abbr.**
		%ile	**SS**	**%ile**	**SS**									
Admin. Behaviors and Obs.						60	70	80	90	100	110	120	130	140	
Pr	1	62	104								○				Pr
Pu	0	40	96						○						Pu
CT (Card Turning)	7	75	110								○				CT
Engagement and Cog. Processing						60	70	80	90	100	110	120	130	140	
Complexity	109	91	120									⊕			Cmplx
R (Responses)	24	55	102	14	83					○					R
F% [Lambda=0.26] (Simplicity)	21%	12	83	36	95			⊕							F%
Blend	5	66	106	15	85						○				Bln
Sy	15	97	128	81	113								⊕		Sy
MC	6.5	47	99	3	72					○					MC
MC - PPD	-7.5	14	84	16	85				⊕						MC-PPD
M	5	72	109	24	89						○				M
M/MC [5/6.5]	77%	88	118	85	115							⊕			M Prp
(CF+C)/SumC [1/2]	NA														CFC Prp
Perception and Thinking Problems						60	70	80	90	100	110	120	130	140	
EII-3	0.8	89	118	84	115							⊕			EII
TP-Comp (Thought & Percept. Com...)	1.2	78	111	65	106						⊕				TP-C
WSumCog	11	74	110	59	103						⊕				WCog
SevCog	0	35	94	35	94				○						Sev
FQ-%	17%	83	114	77	111						⊕				FQ-%
WD-%	12%	76	110	59	103						○				WD-%
FQo%	46%	16	85	21	87				⊕						FQo%
P	4	22	88	20	87				⊕						P
Stress and Distress						60	70	80	90	100	110	120	130	140	
m	3	81	113	46	98						⊕				m
Y	4	91	120	83	114							⊕			Y
MOR	3	87	117	79	113							⊕			MOR
SC-Comp (Suicide Concern Comp.)	7.0	93	122	81	114							⊕			SC-C
Self and Other Representation						60	70	80	90	100	110	120	130	140	

R-PAS Summary Scores and Profiles – Page 1

C-ID: Case RM					P-ID: 7	Age: ~25	Gender: Male	Education: 17+

| Domain/Variables	Raw Scores	Raw %ile	Raw SS	Cplx. Adj. %ile	Cplx. Adj. SS	Standard Score Profile R-Optimized	Abbr.
Admin. Behaviors and Obs.						60 70 80 90 100 110 120 130 140	
Pr	1	62	104				Pr
Pu	0	40	96				Pu
CT (Card Turning)	7	75	110				CT
Engagement and Cog. Processing						60 70 80 90 100 110 120 130 140	
Complexity	109	91	120				Cmplx
R (Responses)	24	55	102	14	83		R
F% [Lambda=0.26] (Simplicity)	21%	12	83	36	95		F%
Blend	5	66	106	15	85		Bln
Sy	15	97	128	81	113		Sy
MC	6.5	47	99	3	72		MC
MC - PPD	-7.5	14	84	16	85		MC-PPD
M	5	72	109	24	89		M
M/MC [5/6.5]	77%	88	118	85	115		M Prp
(CF+C)/SumC [1/2]	NA						CFC Prp
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SevCog	0	35	94	35	94		Sev
FQ-%	17%	83	114	77	111		FQ-%
WD-%	12%	76	110	59	103		WD-%
FQo%	46%	16	85	21	87		FQo%
P	4	22	88	20	87		P
Stress and Distress						60 70 80 90 100 110 120 130 140	
m	3	81	113	46	98		m
Y	4	91	120	83	114		Y
MOR	3	87	117	79	113		MOR
SC-Comp (Suicide Concern Comp.)	7.0	93	122	81	114		SC-C
Self and Other Representation						60 70 80 90 100 110 120 130 140	

R-PAS Highlights

- Secure online scoring program
  - www.r-pas.org
  - Accessible from any web-enabled device
  - Clinical, Teaching or Research Accounts
    - Cost: Varies from free to $5 per protocol
  - Does not require any Protected Health Info
  - Protocols can be saved, deleted, shared, or exported
  - Translations underway into multiple languages

R-PAS Highlights

- Overall, R-PAS allows users to make informed inferences about personality, perception, and cognitive processes by comparing a sample of observed problem-solving behavior obtained in a standardized context to internationally based expectations

www.r-pas.org
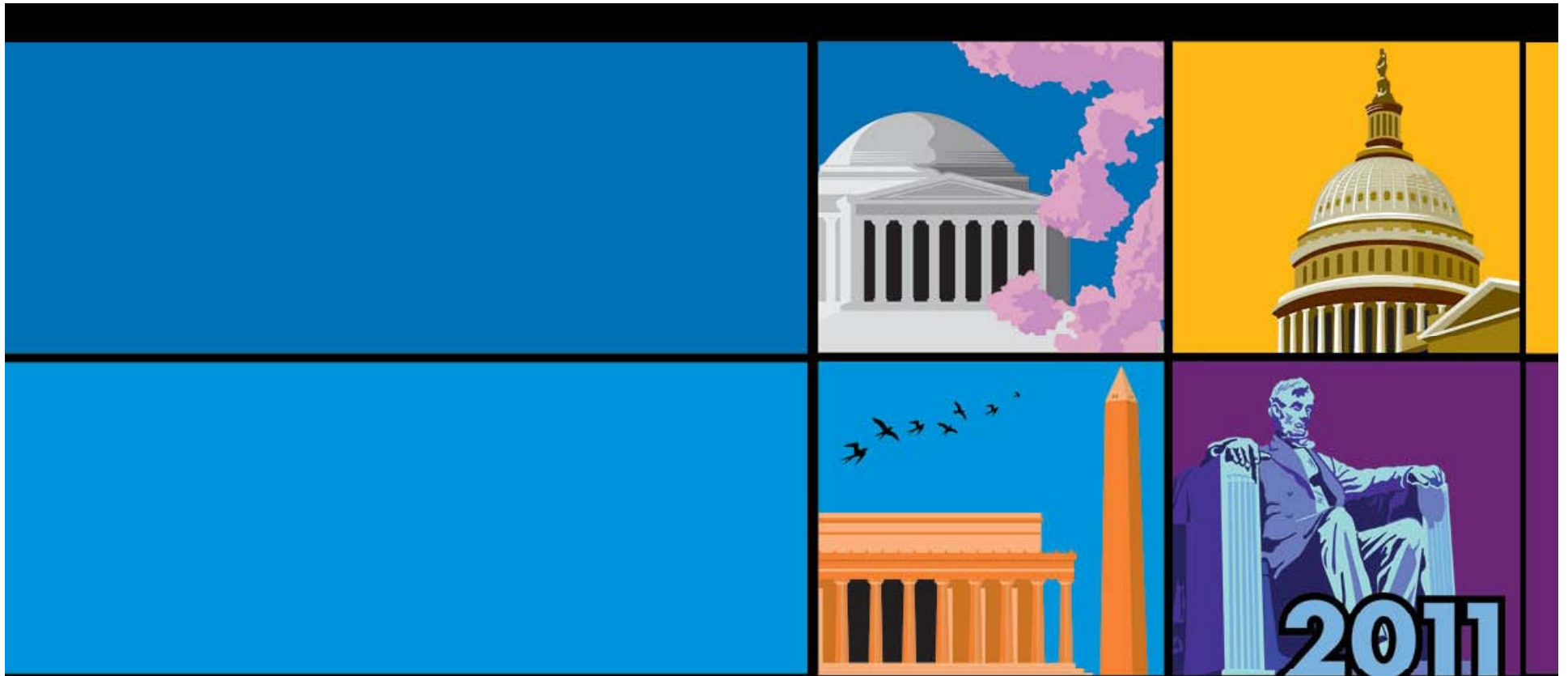
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