

TABLE 1  
Validity and Consistency of Two Sample MPDRs

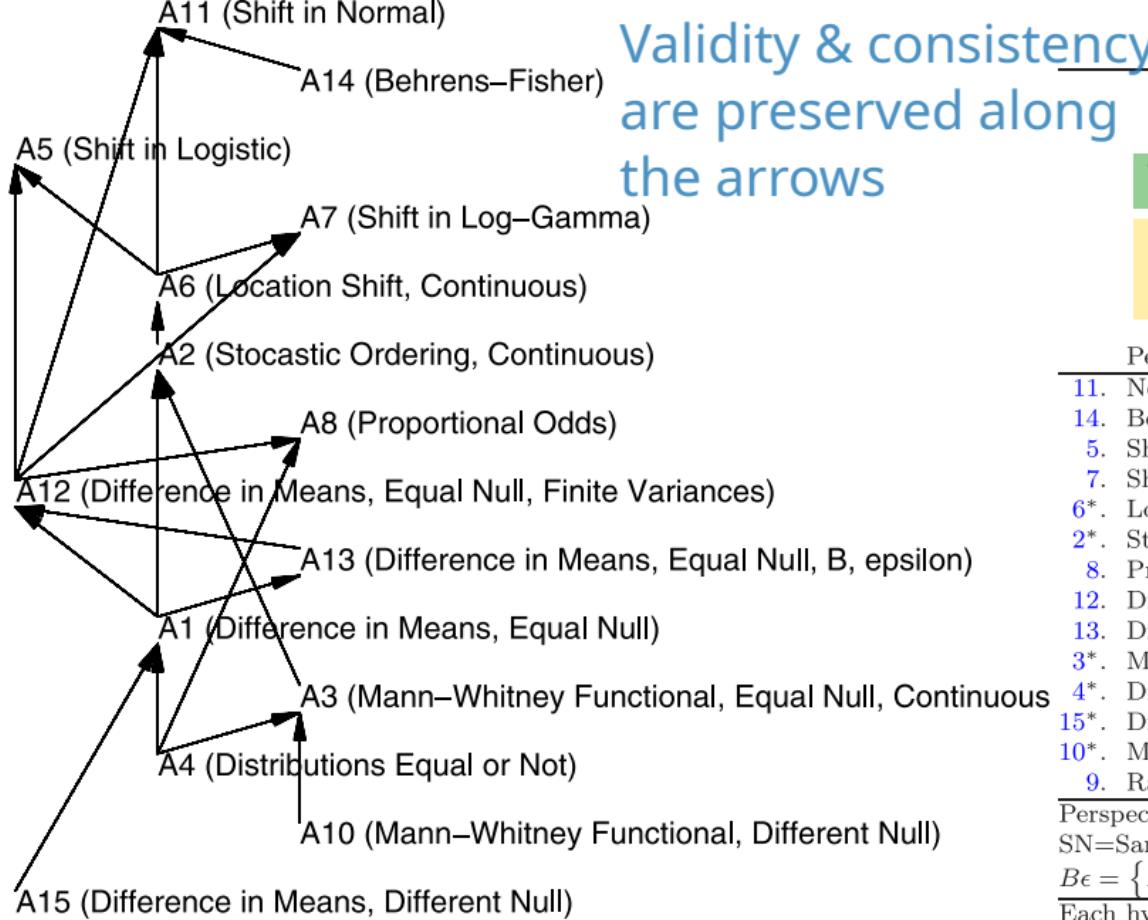


FIG 1. Relationship between assumptions.  $A_i \leftarrow A_j$  denotes that  $A_i \sqsubset A_j$  (i.e.,  $A_i$  are more restrictive assumptions than  $A_j$ ).

Valid & consistent

Asymptotically valid & consistent

Perspective	WMW	NBF <sub>a</sub>	NBF <sub>p</sub>	t	t <sub>W</sub>	t <sub>H</sub>	t <sub>p</sub>	t <sub>BFP</sub>
11. Normal Shift	yy	uy	yy	yy	yy	yy	yy	yy
14. Behrens–Fisher	n-	ay	ay	n-	uy	yy	n-	ay
5. Shift in Logistic	yy	uy	yy	ay	ay	ay	yy	yy
7. Shift in Log–Gamma	yy	uy	yy	ay	ay	ay	yy	yy
6*. Location Shift, fv	yy	uy	yy	ay	ay	ay	yy	yy
2*. Stochastic Ordering, SN, fv	yy	uy	yy	ay	ay	ay	yy	yy
8. Proportional Odds, SN	yy	uy	yy	ay	ay	ay	yy	yy
12. Diff in Means, SN,fv	yn	un	yn	py	py	py	yy	yy
13. Diff in Means, SN, Be	yn	un	yn	uy	uy	uy	yy	yy
3*. Mann–Whitney Func., SN, fv	yy	uy	yy	an	an	an	yn	yn
4*. Distributions Equal or Not, fv	yn	un	yn	an	an	an	yn	yn
15*. Diff in Means, DN, fv	n-	n-	n-	n-	n-	n-	n-	n-
10*. Mann–Whitney Func., DN, fv	n-	ay	ay	n-	n-	n-	n-	n-
9. Randomization Model	y-	--	y-	--	--	--	y-	y-

Perspective numbers with \* have the additional assumption that  $F, G \in \Psi_{fv}$  in both  $H$  and  $K$ .

SN=Same Null Distns., DN=Different Null Distns., fv=Finite Var.,

$$Be = \{E(Y^4) \leq B \text{ and } Var(Y) \geq \epsilon\}$$

Each hypothesis test is represented by 2 sets of symbols representing the 2 properties:

(i) validity, and (ii) (pointwise) consistency, where each character answers the question,  
This test has this property: y=yes, n=no, and - = not applicable.

For validity we also have the symbols: u=UAV, a = PAV, p = PNUAV.