

Hi-Level Logical Characteristics of Three Dyadic Relations - v1.1

Reflexivity
Involves one individual

Symmetry
Involves two individuals

Transitivity
Involves three (or more) individuals

Reflexive

A relation, R , is reflexive iff any individual that enters into the relation bears R to itself.

***Identical with; Divisible by**

Symmetric

If any individual bears the relation to a second individual, then the second bears it to the first.

***Touching**

Transitive

If any individual bears this relation to a second and the second bears it to a third, then the first bears it to the third.

***Greater than; North of; Included in**

Irreflexive

A relation, R , is irreflexive iff no individual bears R to itself.

***Stand next to; Father of**

Asymmetric

A relation, R , is asymmetrical iff, if any individual bears R to a second, then the second does not bear R to the first.

***North of; Heavier than; Child of**

Intransitive

A relation, R , is intransitive iff, if any individual bears R to a second and the second bears R to a third, then the first does not bear R to the third.

***Father of; 2" taller than**

Nonreflexive

A relation which is neither reflexive nor irreflexive is nonreflexive.

***Respecting; Killing**

Nonsymmetric

A relation which is neither symmetrical nor asymmetrical is nonsymmetric.

***Likes; Seeing**

Nontransitive

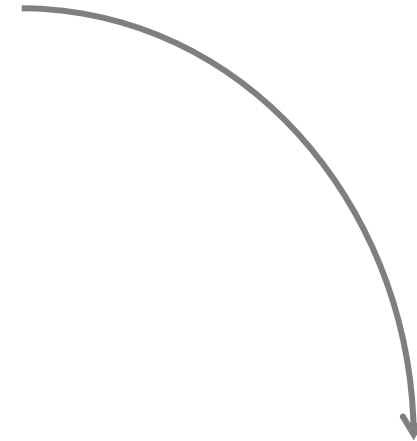
A relation which is neither transitive nor intransitive is nontransitive.

***Admiring; Fearing**

*Examples

Logical Characteristics: Three Dyadic Relations

Reflexive	Symmetric	Transitive
Irreflexive	Asymmetric	Intransitive
Nonreflexive	Nonsymmetric	Nontransitive



Matrix Icons

Reflex	Symm	Trans
Ireflex	Asymm	Itrans
Nreflex	Nsymm	Ntrans

Permutations of Relation Properties with Unique Identifiers and Matrix Icons – v1.6 (for Discovery Mode)

RST- [1,1,1] #Objects=4	Reflexive, Symmetric, Transitive		RSI- [1,1,2] #Objects=4	Reflexive, Symmetric, Intransitive		RSN- [1,1,3] #Objects=4	Reflexive, Symmetric, Nontransitive	
IST- [2,1,1] #Objects=4	Irreflexive, Symmetric, Transitive		ISI- [2,1,2] #Objects=4	Irreflexive, Symmetric, Intransitive		ISN- [2,1,3] #Objects=4	Irreflexive, Symmetric, Nontransitive	
NST- [3,1,1] #Objects=4	Nonreflexive, Symmetric, Transitive		NSI- [3,1,2] #Objects=4	Nonreflexive, Symmetric, Intransitive		NSN- [3,1,3] #Objects=4	Nonreflexive, Symmetric, Nontransitive	
RAT- [1,2,1] #Objects=4	Reflexive, Asymmetric, Transitive		RAI- [1,2,2] #Objects=4	Reflexive, Asymmetric, Intransitive		RAN- [1,2,3] #Objects=4	Reflexive, Asymmetric, Nontransitive	
IAT- [2,2,1] #Objects=4	Irreflexive, Asymmetric, Transitive		IAI- [2,2,2] #Objects=4	Irreflexive, Asymmetric, Intransitive		IAN- [2,2,3] #Objects=4	Irreflexive, Asymmetric, Nontransitive	
NAT- [3,2,1] #Objects=4	Nonreflexive, Asymmetric, Transitive		NAI- [3,2,2] #Objects=4	Nonreflexive, Asymmetric, Intransitive		NAN- [3,2,3] #Objects=4	Nonreflexive, Asymmetric, Nontransitive	
RNT- [1,3,1] #Objects=4	Reflexive, Nonsymmetric, Transitive		RNI- [1,3,2] #Objects=4	Reflexive, Nonsymmetric, Intransitive		RNN- [1,3,3] #Objects=4	Reflexive, Nonsymmetric, Nontransitive	
INT- [2,3,1] #Objects=4	Irreflexive, Nonsymmetric, Transitive		INI- [2,3,2] #Objects=4	Irreflexive, Nonsymmetric, Intransitive		INN- [2,3,3] #Objects=4	Irreflexive, Nonsymmetric, Nontransitive	
NNT- [3,3,1] #Objects=4	Nonreflexive, Nonsymmetric, Transitive		NNI- [3,3,2] #Objects=4	Nonreflexive, Nonsymmetric, Intransitive		NNN- [3,3,3] #Objects=4	Nonreflexive, Nonsymmetric, Nontransitive	

Permutations of Relation Properties with Unique Identifiers and Matrix Icons – v1.6 (for Design Mode)

RST- [1,1,1] #Objects=3	Reflexive, Symmetric, Transitive		RSI- [1,1,2] #Objects=3	Reflexive, Symmetric, Intransitive		RSN- [1,1,3] #Objects=4	Reflexive, Symmetric, Nontransitive	
IST- [2,1,1] #Objects=3	Irreflexive, Symmetric, Transitive		ISI- [2,1,2] #Objects=3	Irreflexive, Symmetric, Intransitive		ISN- [2,1,3] #Objects=4	Irreflexive, Symmetric, Nontransitive	
NST- [3,1,1] #Objects=3	Nonreflexive, Symmetric, Transitive		NSI- [3,1,2] #Objects=3	Nonreflexive, Symmetric, Intransitive		NSN- [3,1,3] #Objects=4	Nonreflexive, Symmetric, Nontransitive	
RAT- [1,2,1] #Objects=3	Reflexive, Asymmetric, Transitive		RAI- [1,2,2] #Objects=3	Reflexive, Asymmetric, Intransitive		RAN- [1,2,3] #Objects=4	Reflexive, Asymmetric, Nontransitive	
IAT- [2,2,1] #Objects=3	Irreflexive, Asymmetric, Transitive		IAI- [2,2,2] #Objects=3	Irreflexive, Asymmetric, Intransitive		IAN- [2,2,3] #Objects=4	Irreflexive, Asymmetric, Nontransitive	
NAT- [3,2,1] #Objects=3	Nonreflexive, Asymmetric, Transitive		NAI- [3,2,2] #Objects=3	Nonreflexive, Asymmetric, Intransitive		NAN- [3,2,3] #Objects=4	Nonreflexive, Asymmetric, Nontransitive	
RNT- [1,3,1] #Objects=3	Reflexive, Nonsymmetric, Transitive		RNI- [1,3,2] #Objects=3	Reflexive, Nonsymmetric, Intransitive		RNN- [1,3,3] #Objects=4	Reflexive, Nonsymmetric, Nontransitive	
INT- [2,3,1] #Objects=3	Irreflexive, Nonsymmetric, Transitive		INI- [2,3,2] #Objects=3	Irreflexive, Nonsymmetric, Intransitive		INN- [2,3,3] #Objects=4	Irreflexive, Nonsymmetric, Nontransitive	
NNT- [3,3,1] #Objects=3	Nonreflexive, Nonsymmetric, Transitive		NNI- [3,3,2] #Objects=3	Nonreflexive, Nonsymmetric, Intransitive		NNN- [3,3,3] #Objects=4	Nonreflexive, Nonsymmetric, Nontransitive	