

Binding Strengths

For two entities **X** and **Y** that are adjacent in an expression (that is, **XY**), the binding strength between them and the result of the bind is shown in this table:

		Y													
		A		F		H		MOP		DOP		DOT		IDX	
X	A	6	A	3	AF	3	AF	4	F			7	REF	4	A
	F	2	A	1	F	4	F	4	F					4	F
	H			1	F	4	F	4	F					4	H
	AF	2	A	1	F										
	MOP					4	ERR								
	DOP	5	MOP	5	MOP	5	MOP								
	JOT	5	MOP	5	MOP	5	MOP	4	F						
	DOT	6	ERR	5	MOP	5	MOP			6	ERR				
	REF	7	A	7	F	7	H	7	MOP	7	DOP				
	IDX	3	ERR	3	ERR	3	ERR								

where:

- A** : *Array, for example, `0 1 2 'hello' α ω`
- F** : *Function (primitive/defined/derived/system), for example, `+ - +.× myfn [CR {α ω}`
- H** : *Hybrid function/operator, that is, `/ ≠ \ †`
- AF** : Bound left argument, for example, `2+`
- MOP** : *Monadic operator, for example, `¨ ~ &`
- DOP** : Dyadic operator, for example, `* [] [] []`
- JOT** : Jot, that is, compose/null operand `∘`
- DOT** : Dot, that is, reference/product `.`
- IDX** : square-bracketed expression, for example, `[α+ιω]`
- ERR** : Error

* indicates a "first-class" entity, which can be parenthesised or named

In this table:

- the higher the number, the stronger the binding
- an empty field indicates no binding for this combination; an error.

For example, in the expression `a b.c[d]`, where `a`, `b`, `c` and `d` are arrays, the binding proceeds:

```

a b . c [d]
 6 7 6 4      A binding strengths between entities
→ a (b.) c [d]
  0   7 4
→ a (b.c) [d]
  6     4
→ (a(b.c))[d]

```

Note: Binding strengths can vary between APL distributions. For example, the expression `a b c[d]` binds as `(a b c)[d]` in Dyalog (and other pre-nested array APLs such as APL\360) rather than as `a b (c[d])`, which is preferred by APL2 and APLX (among others).