Corrigenda to 'Model theory', Wilfrid Hodges

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p. xiii l. 15 The $\cup$ should be $\bigcup$.

p. 8 l. 8 $\cup$ should be $\bigcup$.

p. 14 l. 4 delete comma.

p. 14 l. -5f For 'Lemma 1.2.2' read 'Theorem 1.2.3'.

p. 15 Exercise 4 For 'generate A' read 'lists the elements of A'.

p. 29 l. 20 Replace 'section 1.3' by 'section 1.2'.

p. 39 l. 16 For 'Mod($\mathbf{K}$)' and 'Mod($\mathbf{J}$)' read respectively 'Th($\mathbf{K}$)' and 'Th($\mathbf{J}$)'.

p. 41 l. -1 For '$\Phi \subseteq X$' read '$\Phi \cup \{\bot\} \subseteq X$'.

p. 42 l. 3 Add after 'in Φ.': 'By convention the empty disjunction $\bot$ and the empty conjunction $\neg\bot$ count as formulas in disjunctive normal form.'

p. 45 l. -16 For 'results' read 'result'.

p. 46 l. 1 for '$\phi \in T$' read '$\phi \notin T$'.

p. 46 Exercise 6 $\cup$ should be $\bigcup$ both times.

p. 51 l. 6 For '$F^A p$' read 'F^{A_p}'.

p. 51 l. -9 For 'A' read 'A_p'.

p. 66 Exercise 8 After '(a) Show that if' add '$T \subseteq T^+$ and'.

p. 66 Exercise 10 in second line, for '$x + x = 0$' read '$x^2 = x$'.

p. 71 l. 12 For 'satisifies' read 'satisfies'.

p. 72 Corollary 2.7.6 For 'If L_1 has at least one constant symbol' read 'If L_1 is infinite, or has at least one constant symbol'. For 'If L_1 has function symbols' read 'If L_1 is finite and has function symbols'.

p. 73 Exercise 2 For 'the formulas $\phi^s(x)$' read 'the formulas $\phi^s(x)$ and $x = y$'.

p. 89 l. -12 For 'ϕ' read 'χ'.

p. 90 l. 5 For 'Σ_n' read 'L_n'.

p. 90 l. -6 for 'B' at beginning of line read 'A'.

p. 97 end of proof The final 'B' should be 'C'.

p. 99 l. 5 Add '(If there is no such map f, choose some arbitrary element of the appropriate structure.)'.

p. 99 l. 6 Replace this sentence 'By $(2.5')$ ... define a strategy.' by: 'By $(2.5')$–$(2.7')$, if player $\exists$ follows this strategy then there always will be a map f in $I^\star$ as required.'

p. 102 l. -15 For '(A, B)' read '$[A, B]$'.

p. 104 l. 12 For '$\Theta_{n,r}$' read '$\Theta_{n,k}$'.

p. 106 l. 1f For 'logically equivalent' read 'equivalent throughout **K**'.

p. 106 l. 19 For '0 or 1' read '0 or 1 or -1'.

p. 119 l. 1 For 'rationals and the' read 'integers and'.

p. 121 l. -15 $(B, \bar{b})$ should be in italics.

p. 125 l. 2 For 'countable substructures of $\mathrm{dom}(B)$' read 'domains of countable substructures of B'.

p. 127 l. 5 For 'B' read 'A'.

p. 127 l. 8 For 'finite' read 'infinite'.

p. 140 l. 6 For 'G' read 'A' (twice).

p. 153 Theorem 4.3.5 is wrong. I haven't yet got a repair.

p. 155 l. -7 For 'A fails' read 'Th(A) fails'.

p. 158 l. 10 For 'imaginaries; but' read 'imaginaries, in such a way that ϕ in the definition above depends only on θ and not on the choice of model. But'.

p. 160 Second Fact For 'constructible' read 'nonempty constructible'.

p. 199 l. 7f The remark on Exercise 10 should read: 'Marker [1987] proved the remarkable fact that the structure (ω, S), where S is the successor function, has a nontrivial strongly minimal expansion.'

p. 215 l. -14 For 'Theorem 5.3.1' read 'Theorem 5.3.2'.

p. 218 Ex. 5 For 'direct sum' read 'disjoint sum'.

p. 242 l. 23 For '5.6.4(d)' read '5.6.4(e)'.

p. 243 l. -14 For 'two' read 'the following'.

p. 244 Theorem 5.6.10 In (a), 'degree' should be 'rank'. In first line of proof, $\phi(\bar{x})$ should be $\phi(x)$.

p. 245 l. -9 For 'L-structures' read 'L-structure'.

p. 268 l. 1 After 'compactness' add 'theorem'.

p. 270 Exercise 9 For '$\phi(B)$' read '$|\phi(B)|$'.

p. 289 (4.5) for 'of L' read 'of L, $\bar{c}$ in C'.

p. 289 l. –8f For 'C' read 'C'' (twice).

p. 304 Exercise 4 Full stop missing in first line before 'Suppose'.

p. 308 l. -5 For '$|X|$' read 'λ'.

p. 308 l. -1 Delete the sentence 'Since λ ... cardinality λ.'

p. 313 l. -7 For 'J' read 'J'.

p. 317 Exercise 5 In last sentence, for 'T' read 'T'.

p. 330 l. 10 For 'x' read 'X'.

p. 335 l. -9 After 'infinite' add 'and $0 \notin X$'.

p. 336 ll. -16, -11 'A' should be 'B' (twice in line -16, once in line -11).

p. 340 Exercise 6 For '*As far as ... open.*' read '*Greg Hjorth has shown that the question whether $\mu(T) = \omega_1$ for some countable complete T is independent of ZFC.*'.

p. 347 Ex. 6 Add 'that' after 'such'.

p. 352 l. -16 After 'finite signature' add 'with no function symbols'.

p. 367 l. 13 For 'a_i' read '$\bar{a}_i$'.

p. 369 l. -4 For 'omitting theorem' read 'omitting types theorem'. (Sadly this was not meant as a joke.)

p. 376 l. -7 The formula should read

$$\exists \bar{x}\ (P(x_0) \wedge \ldots \wedge P(x_{n-1}) \wedge \phi(\bar{x}) \wedge \neg \phi^P(\bar{x}))$$

p. 385 l. -15 $\psi(a, y)$ should be $\psi(\bar{a}, y)$.

p. 386 l. 3 of Fact 8.4.6 For 'over A' read 'over C'. Also 'A'' at the end should be 'B'.

p. 367 after (2.3) For 'A_δ' read 'A_λ'.

p. 389 Exercise 7 The sentence in square brackets should read 'If A is infinite, use Exercise 6.'

p. 390 Exercise 14 In the middle of this exercise, '$\bigwedge$' should be '$\bigvee$'.

p. 392 l. 8 For 'group' read 'ring'.

p. 418 Ex. 6 After 'finite' add 'and at most finitely many of the A_i are distinct'.

p. 423 l. 20 After 'strict' add 'universal'.

p. 442 l. 21 For 'C.' read 'C,'.

p. 445 l. 1f For 'formula' read 'sentence' (twice).

p. 452 l. 12 For read 'B^ω' read '$B^\omega/\mathcal{U}$'.

p. 456 Exercise 12 (old) In first line the first 'L-structure' should be 'L-structures'.

p. 458 l. 24 For 'known' read 'know'.

p. 468 l. 1 For '$S(B)$' read '$S(A)$'.

p. 480 l. 6 For '0-big' read '1-big'.

p. 492 l. -9 for '8.1' read '8.2'.

p. 533 l. 17 For '[1955a]' read '[1955b]'. At the end of the line add '(This was not the only time that Mal'tsev asserted a correct theorem but gave an unconvincing proof.)'.

p. 536 l. 13 For 'theories' read 'theorems'.

p. 536 l. -14 For 'K' read 'X'.

p. 537 l. 8 For 'of L' read 'L of A'.

p. 539 l. -11 For '$[Y]^{k-1}$' read '$[Y]^k$'.

p. 547 l. -12 For 'Th(F)' read 'much of 'Th(F)'.

p. 563 l. -3 Add 'regular' after 'uncountable'.

p. 594 l. 9 For 'Exercise 12' read 'Exercise 11'.

p. 596 l. -4 For 'his' read 'their'.

p. 602 11. 1–9 This paragraph should read as follows.

Suppose T is a theory in a language L. A formula $\phi(x)$ of L is said to be **two-cardinal** for T if there is a model A of T such that $|A|$ and $|\phi(A)|$ are distinct; otherwise it is **one-cardinal** for T. We say the theory T is **two-cardinal** if there is a two-cardinal formula ϕ for T such that $\phi(A)$ is infinite in every model A of T; otherwise T is **one-cardinal**. A **Vaught pair** for the formula ϕ is a pair of structures A, B such that $B \preccurlyeq A$, $B \neq A$ and $\phi(A), \phi(B)$ are infinite and equal. For a countable complete first-order theory T, the implication (c) $\Rightarrow$ (b) in Vaught's two-cardinal theorem tells us that if some formula $\phi(x)$ has a Vaught pair of models of T, then ϕ is two-cardinal for T and T is a two-cardinal theory.

p. 651 l. 19 For 'transcendental' read 'categorical'.

p. 654 formula (1.1) For 'x_{n-1}' read 'χ_{n-1}'.

p. 654 l. -2 For 'proof.' read 'proof,'.

p. 658 Theorem A.1.8 The first sentence should read '*Let R be a ring, K a set of left R-modules and T the set of all first-order sentences true of every module in K.*'

p. 691 l. 3 For the first '$\equiv$' read '$\cong$'.

p. 694 l. 1 Before 'group' add 'locally finite'.

p. 696 ll. 6, 7, 22 For 'T_{acl}' read 'T_{acf}'.

p. 702 l. 1 '$(c) \Rightarrow (a)$' should be '$(a) \Rightarrow (c)$'.

p. 716 l. 5 For 'Reiter' read 'Reuter'.

p. 716 Almagambetov The third Russian word should be 'aksiom'.

p. 734 The page references at the end of the entry Keisler 1970 should be '[129, 595, 602]'.

p. 740 The date of the paper of Morley and Vaught is 1962.

p. 742 Palyutin 1980 The first Russian word should be 'Kategorichnye'.

p. 756 l. 6 For 'Fr_L' read 'Fr_λ'.

p. 756 left For '$\approx_\gamma$ 103' read '$\approx_\gamma$ 102'.

p. 759 classification For '63' read '68'.

p. 760 definitional Add item '$\sim$ extension 60'.

p. 765 left Add item 'limit point 453'.

p. 765 Lindenbaum For ‘30’ read ‘319’.

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