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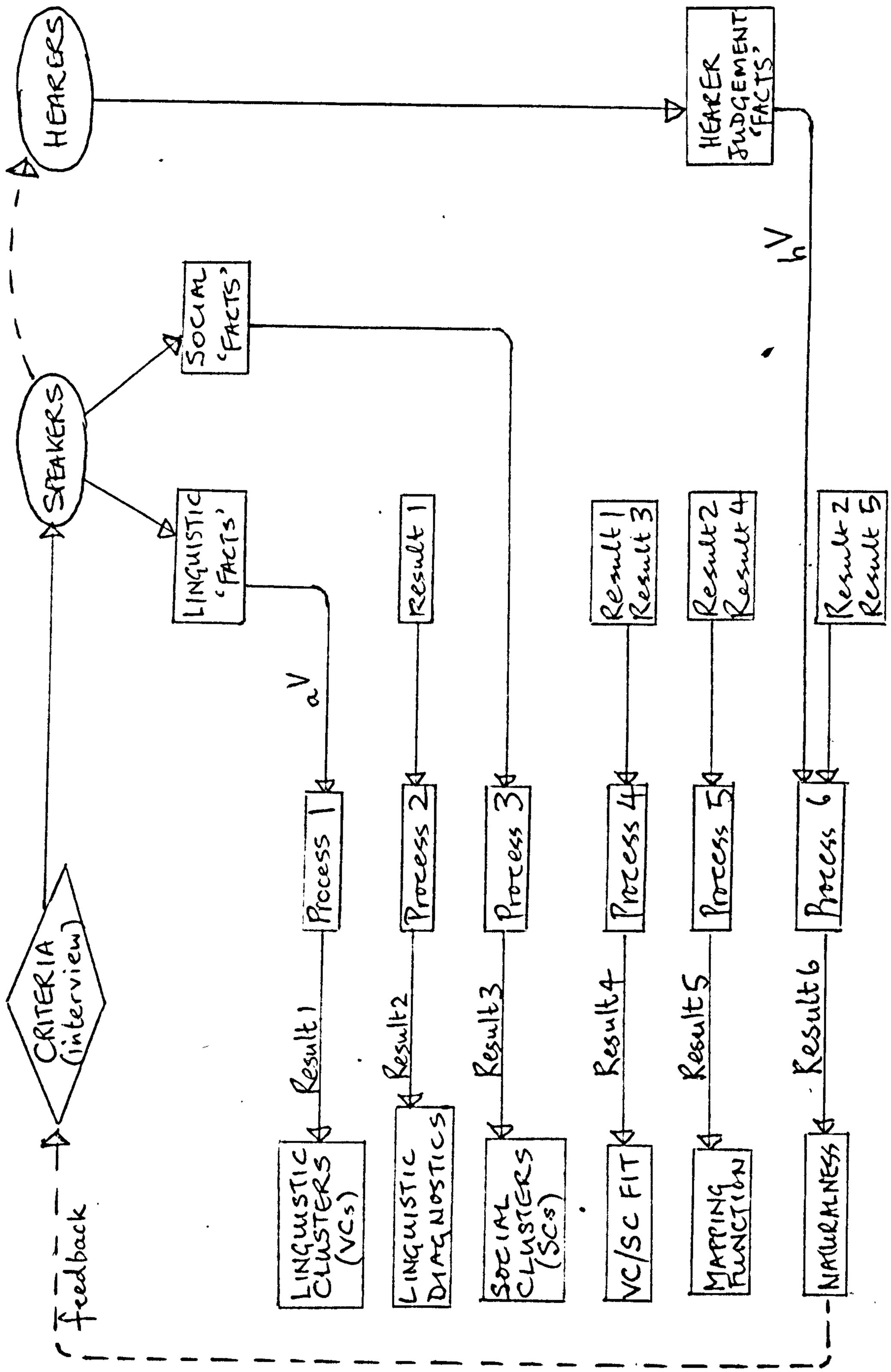
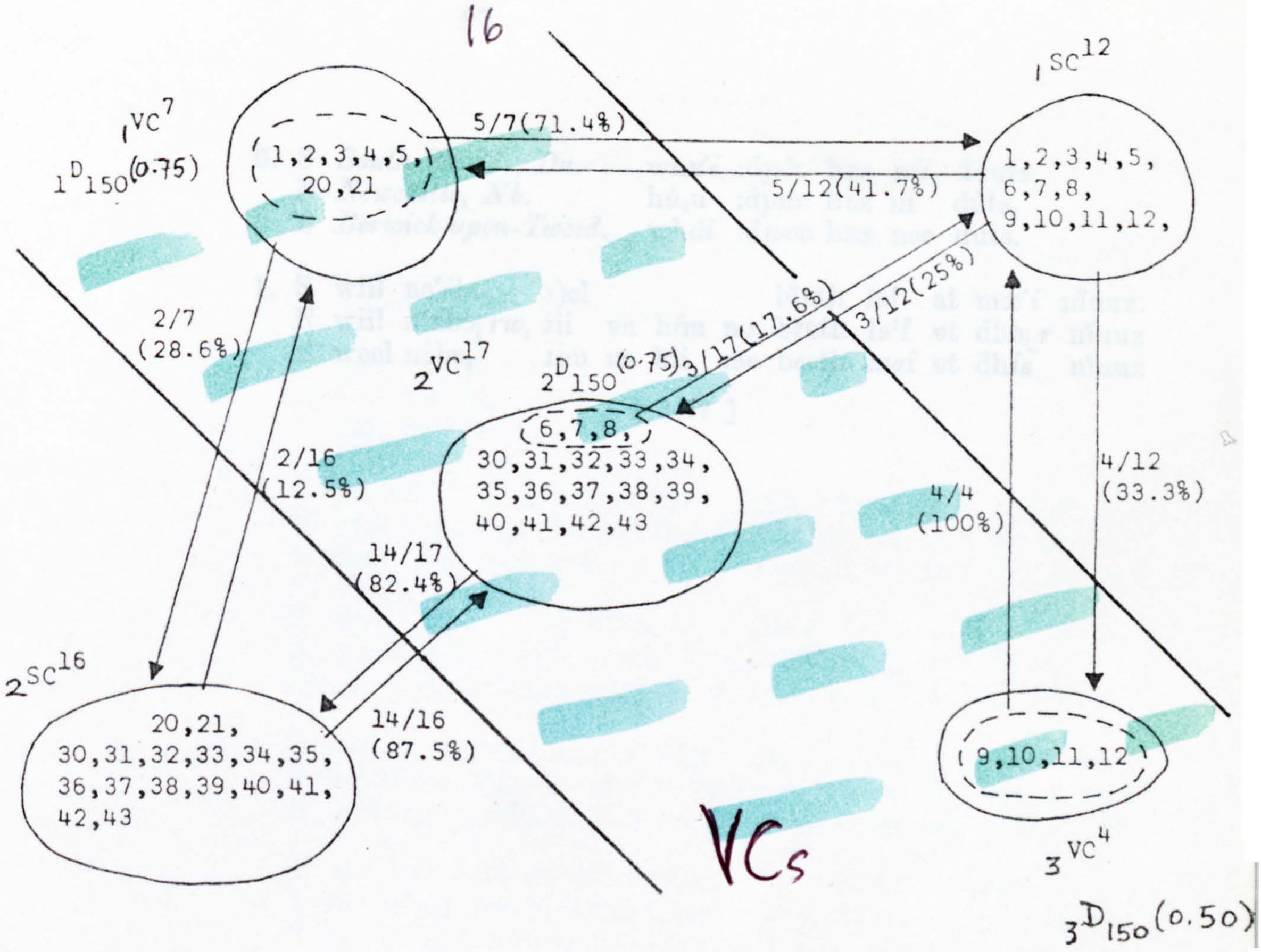


Figure 3 (1): One possible flowchart representation of the normative modelling of Chapter 3.



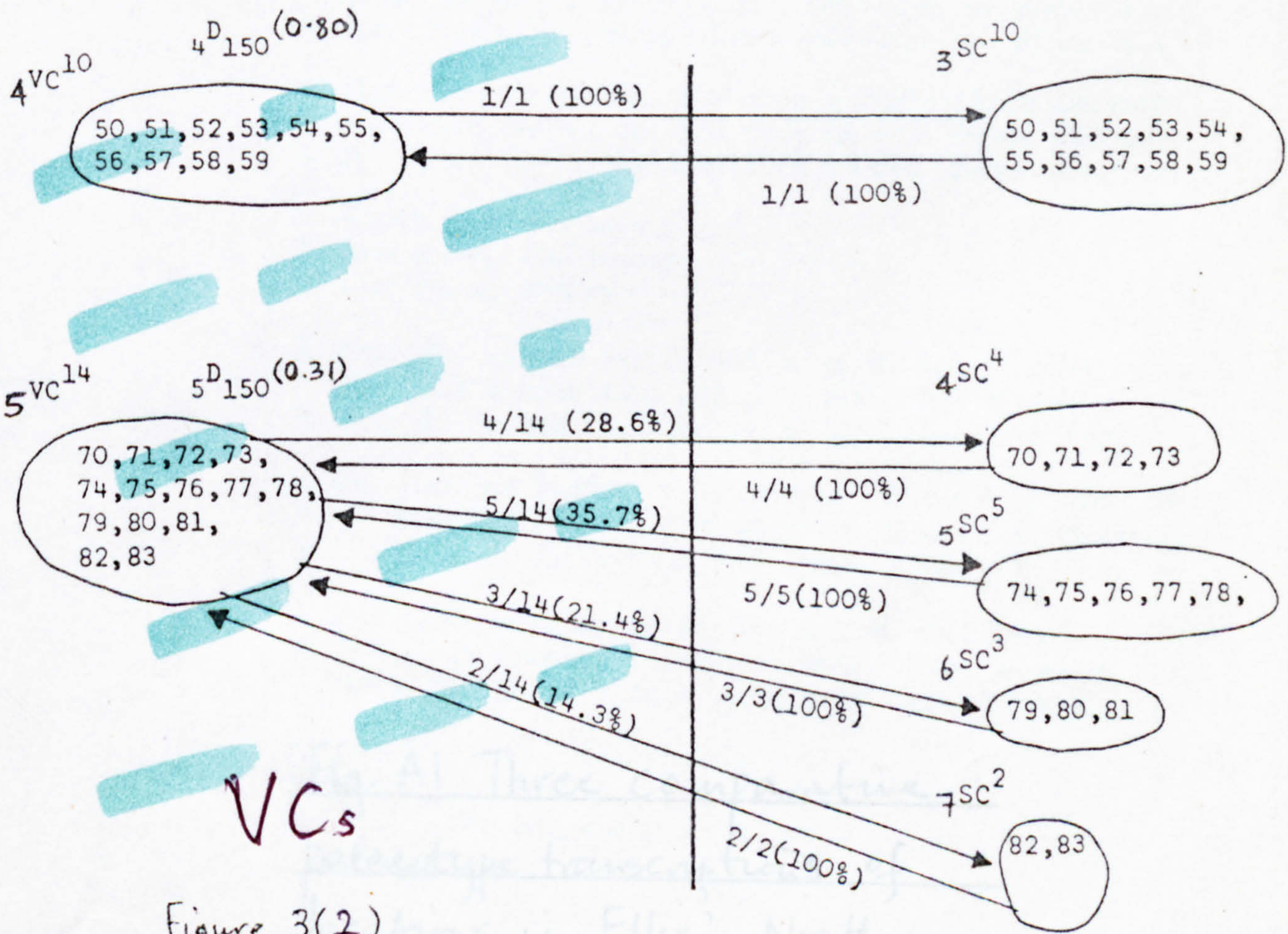


Figure 3(2)

Diagram of possible VC/SC relations together with the values of fractions of mutual inclusion

0. S *South Shields, Du.* whɛ'*i* :dʒak hɛz n*ii*ˌ duuts.
N *Newcastle, Nb.* hú*ˌ*u :dʒon hɛz ni dùts.
B *Berwick-upon-Tweed.* wh*ái* :dʒ*oo*n hɛz n*oo* duts.

1. S wiil nə'*i*bʊ, ɹ)el bĭɛth laf at mæ'*i* nĭuuz.
N wiil nĭɛboˌ*rw*, ɹii ʊn h*i*m m*e* bĭɛth la'f ʊt dhoˌ*r* nĭuuz
B weel nèbʊ, ɹùu ʊn hii me b*oo*th l*aa*f ʊt dh*i*s nĭuuz

[2077]

Fig. A1 Three comparative palaeotype transcriptions of locations in Ellis' North Northern (Ellis 1889:645-9).

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S wii kɛ'z? it)s nii₁ matʊ—it)s nóudhʊ
N ʊ mə'in. whi keerz? dha¹t)s nóudhor
B ʊ máin. whee kéeʊz? dhat)s nèdhʊ

S hiiʊ nʌ dhɛɛ'ʊ.
N hiir nor dhéeo˽r.
B hiiʊ nʊ dhéeʊ.

2. S nii₁bodi di₁iz bikaaz dh)a làft ʊt, wi naa div'nt wi?
N fiúu mɛn di₁i kà¹z dho)r là¹ft ʊt, wi naa¹ div'nt wʊ?
B fĭuw mɛn dái bikɔz dhé)ʊ laaft at, wi kɛn div'nt wʊ?

S what wud mĭɛk dhim? it iz)int vɛ˽ri lə'ikli is)t?
N wha¹t shu₁d mĭɛk dhʊm? it)s not va¹r₀i lə'ikli is)t?
B whɔt shʊd meek dhʊm? it iz'nt vɛri láikli iz)it?

3. S onihóu aa)l tɛl jʊ dhi faks ɔn)t, so dji₁st haad
N huusi·vor dhor)z dhʊ fa¹ks ʊv dhʊ kees, si dju₁st ha¹d
B huɛ·vʊ dhiiz iz dhʊ faks ʊ dhʊ kees, soo djìst háuld

S jʊ djaa ʊn see nóut til aa)v djœ₁n. dji₁st hii:ʊ.
N jor whist, ʊn bi kwáiʊt tiv a¹)z dĭœ₁n. liz'n.
B jʊ nôiz, frìnd, ʊn bi kwáiʊt til a)m dɜn. lizin.

4. S aa)m saat'n a haad dhʊm see—su₁m ɔ dhɛm fooks
N aa¹)z saa˽rt'n a¹ hiiord dhʊm sɛɛ—su₁m ov dhor fooks
B a)m saat'n a hiiʊd dhʊm sè—sɜm ʊ dhèm fook

S dhat wɛnt th˽ruu dhi hool thiq f˽rɔ)dhi fóoʊst dhɛ'ʊsɛlz,
N dhʊt wɛnt thruu dhi hĭɛl thiq fre dhʊ fo˽rst dhorsɛlz,
B at wɛnt thrù dhʊ hool thiq frè dhʊ forʊst dhaɹsɛlz,

S dhat a di₁d, sĭɛf ʊnĭœ₁f.
N dhat a did, sĭɛf ʊnĭœ₁f.
B dhat did a, seef ʊnɜf.

5. S dhat dhi ju₁qest su₁n hizsɛl, a g˽riit lad nə'in jii₁ʊz
N dhʊt dhʊ ju₁qist su₁n izsɛl, ʊ griit lad ʊ nə'in
B dhʊt dʊ jɜqest sɜn issɛl, ʊ big ladi ʊ náijin

S aad nĭuu hiz feedhʊ vʌ'is at jɛns fʊ˽r aal it wiz sii
N nĭuu hiz fɛdhorz vóis ʊt wons, thoo it ·wa¹z si
B kɛnd iz fèdhʊ)z vóois ʊt wons, althoo it ·wɔz sʊ

S kwiiʊ˽r an skwiiki, an aa wad t˽ru₁st ·him tʊ tɛl dhi
N kwiior ʊn skwiiki, ʊn ad tru₁st him tʊ spi₁ik dhʊ
B kwiiʊ ʊn skwiikin, ʊn a wɔd trɜst im tʊ spiik dhʊ

S t˽ruuth ɔni dee, ái, ·dhat a wad.
N truuth oni dɛɛ, ee, a¹ wa¹d'.
B trùth òni dee, ææ'i, a wɜd.

[2078]

Fig. A1 (Cont. (2))

6. S an dhi aad wɑ̃man hʊsɛl il tɛl oni oo ɹʊ dhat lafs
N ʊn dhʊ a'd wə'if horsɛl' ʊl tɛl oni o ɹʊ dhʊt la'f
B ʊn dhʊ áuld wɛamʊn ʊsɛl ʊl tɛl òni on ɹʊ at laaf

S nuu, an tɛl ɹi stɹə'it of, tii, widhuut oni bodhʊ,
N nú₁u, ʊn tɛl ɹʊ strə'it of', tii, widhuut mɑ̃₁tɟ bodhor,
B náu, ʊn tɛl ɹʊ ʊt wons ʊn aa, ʊdhut mɛtɟ bòdhʊ,

S if ɹ)el ooni ask ʊ, oo! winit shi?
N if ɹ)ʊl ooni a'ks or, oo! winit shʊ?
B if ɹ)ʊl ònli aks ʊ, oo! wɛl shi noo?

7. S onihóu shi tɛld ·mii on)t whɛn ·aa akst ʊ, tuuthɹi
N ʊt lí₁ist shi tɛld ·mii wɛn a' a'kst or, tú₁u or
B ʊt òni reet shi táùld ·mii whɛn ar akst ʊ, tuu ʊ

S tə'imz óuo, æ'i, did shi, an ·shii óut'nt tʊ bi ɹaq
N thrí₁i tə'imz óuvr, did shi, ʊn shii óut'nt ti bi ra'q
B thrii táimz áuʊ, did shʊ, ʊn ·shii áut'nt tʊ bi rooq

S ʊbuut sitɟ ʊ matʊɹr az dhis, what di ·ɹii thiqk?
N on sek ʊ póint ʊz dhis, wha't di ɹii thiqk?
B on sitɟ ʊ pôint ʊz dhis, whot d)ɹʊ thiqk?

8. S wèl, ʊz aa wʊz seejin, ·shii wʊd tɛl ɹʊ hóu whɛɛ'ʊ ʊn
N wiil, ʊz a' wʊz sɛɛʊn, ·shii wʊd tɛl ɹʊ hú₁u whéor ʊn
B wɛ'l, ʊz ái wʊz seejin, shii wʊd tɛl ɹʊ huu whéeʊ ʊn

S whɛn shi fɑ̃₁nd dhi dɹœ₁k'n biist shi kaalz hʊ
N whɛn shi fɑ̃₁nd dhʊ dru₁qk'n biist dhʊt shi kaa'lz or
B whɛn shi fand dhʊ drak'n biist ʊt shi kaaz ʊ

S hɑ̃₁zbʊnd.
N gɑ̃₁d ma'n.
B hazbʊnd.

9. S shi swóoʊ shi saa ʊm widh ʊr aan áiz láijin aal iz
N shi swor shi siid im widh or aa'n ə'iz lə'ijin stritɟt ʊt
B shi swúuʊ shi sìd im wi or áun áiz láijin stritɟt at

S laq lɛnth on dhi gɹœ₁nd in hiiz sɑ̃₁ndʊ kleez, kloos
N fɑ̃₁l lɛnth on dhi gru₁nd in iz sœ₁ndʊ kuut, kloos
B fal lɛnth on dhʊ grand in iz gad sandiz koot, kloos

S bi dhi daaɹr i dhʊ huus duun at dhi kaa'ʊnʊɹr ʊ
N bi dhʊ dor iv dhʊ hú₁us, dɑ̃₁un ʊt dhʊ kornor ʊv
B bái dhʊ door ʊ dhʊ háus, duun ʊt dhʊ kóoʊnʊr ʊ

S dhon leen.
N ɹon lǐɛn.
B ɹon leen.

[2079]

Fig. A1 (cont. (3))

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10. S hii wuz who'inin on, sez shii, fu⌊r aal dhi waa'uld
N hii wuz whindjun uwee, sez shii, fur aa¹ dhu woorld
B hi wuz kráijin uwee, seshii·, fur a dhi world

S lə'ik a púuu bee'un, u⌊r a lit'l las f⌊retun.
N lə'ik a si₁ik béorn, or u bit la¹si in u pet.
B láik u béorn ut woz'nt wel', or u lit'l lasi ut u tempu.

11. S an dhat hap'nd az shii an u dóutu⌊r in laa kom
N un dha¹t ha¹p'nt iz shí₁i un or dóutor in laa¹ kom
B un dhat hap'nt, az shii un u gad dáutur keem.

S th⌊ruu dhi bak jee'ud f⌊re hiqun uut dhi wet kleez
N thrú₁u dhi ba¹k jaa⌊rd fre hiqin ú₁ut dhu wet kleez
B thruu dhu bak jéeud free hiqin ut dhu wet kleez

S tu d⌊rə'i on u weshin dee,
N ti drə'i on u weshun dee,
B tu drái on u weshin dee,

12. S wə'il dhu ket'l wuz bóilun fu tii, won boni
N whə'il dhu ket'l wuz bóilun for tí₁i, won fə'in brə'it
B when dhu ket'l wuz bôilin fu tii, woon fáijin bráit

S su₁mu⌊r aftuníu₁n, ooni u wìk sins ku₁m nekst
N su₁mor aftorníœ₁n, ooni u wiik ugĭen nikst
B samuz eftunuun, oonli u wiik ugoo kam nikst

S thaa'uzdu.
N thorzdu ku₁mz.
B tharuzde.

13. S un di)ju naa? a nivu léeund oni méeu na dhis ubuut
N un di ji naa¹? a¹ nivor léornd oni méor nor dhis iv
B un d)ju ken? a nevur leornd òni môu nu dhis ubut

S dhat matu⌊r u₁p tu dhis dee, uz shúuu)z ma nĭem)z
N dha¹t biznis œ₁p tu dhu dee, uz shuur uz ma¹ nĭem)z
B dhat biznis til dhu dee uz shúuu)z mu neem)z

S :djak :shepud, un a dinut want iidhu. dhéeu
N :dja¹k :shipord, un a¹ dinu wa¹nt óudhor, dhéor
B :djak :shipud, un a dev'nt wont tu ken nèdhu. dhéeu

S nuu!
N nú₁u!
B náu.

14. S un nuu aa)m gaan jem tu hee mi su₁pu. gu₁d niit,
N un soo a¹)z ga¹n hĭem tu hee mi su₁por. gu₁d niit,
B un soo a)m goon·hoom tu ma sapu. gad náit,

Fig A1 (cont. (4))

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S ɐn dinit bi si kwik tɐ k˩raa óu)ɐ˩r ɐ bodi ɐgĭɛn when
N ɐn dinɐ bi si kwik tɐ kraa' óur ɐ bodi ɐgĭɛn, when
B ɐn dev'nt bi sɐ kwik tɐ kroo áu)ɐr ɐ bodi ɐgeen, when

S hi taaks ɐbuut dhis ʌ dhi tu₁dhɐ.
N hi taa'ks iv dhis dha't or dhɐ tu₁dhor.
B hi tʌʌks ɐbut dhis dhat ɐ dhɐ ɜdhɐ thiq.

15. S hii)z ɐ púuɐ fíœ₁l dhat bladhɐz widhuut ˩riizin.
N hii)z nobɐt ɐ wiik fíul dhɐt ba'b'lz widhuut ri₁iz'n.
B it)s ɐ wiik ful' ɐt gab'lz ɐdhut riiz'n.

S ɐn dhat)s mi last wəəd. gu₁d bái.
N ɐn dha't iz ma' la'st word. gu₁d bə'i.
B ɐn dhat)s ma last worɐd. gɜd bái.

Fig. A1 (cont. (5))

* *vivâ voce* pal. by AJE.

1.	1 *Edmondbyers*, Var. ii, p. 653.	sii	a	SEE,	MEETS,
	*2 *Lanchester*, Var. ii, p. 653.	soo	aa	see,	meets,
	3 *Annfield Plain*, Var. ii, p. 653.	sii	a	see,	maruz,
	*4 *Bishop Middleham*, Var. ii, p. 653.	soo	a	séeu,	méeuts,
	*5 *Kelloe*, Var. ii, p. 653.	soo	a	see,	méeuts,
	*6 *Sunderland*, Var. ii, p. 653.		a	see,	
	*7 *Hexham* 1, Var. iii, p. 654.	soo	a[1]	see,	
	*8 *Hexham* 2, Var. iii, p. 654.	soo	a	sii,	maroz,
	9 *Haltwhistle*, Var. iii, p. 654.	see	a	see,	la[1]dz,
	10 *Stamfordham*, Var. iv, p. 654.	soo	a[1]	see,	meets,
	11 *Whalton*, Var. iv, p. 654.	sóou	a[1]	see,	ma[1]ruz,
	*12 *Newcastle*, Var. iv, p. 654.	soo	a[1]	see,	meets,
	*13 *North Shields*, Var. iv, p. 654.	soo	aa	séeu,	meets,
	*14 *Rothbury*, Var. v, p. 654.	soo	a	see,	meets,
	*15 *Snitter*, Var. v, p. 654.	soo	a	séei,	meets,
	16 *Harbottle*, Var. v, p. 654.	soo	a[1]	see,	ladz,
	*17 *Warkworth*, Var. v, p. 654.	sii	a[1]	see,	la[1]dz,
	18 *Alnwick*, Var. v, p. 654.	soo	a	see,	meets,
	19 *Whittingham*, Var. v, p. 655.	sii	a	see,	nə'iborz,
	20 *Embleton* 1, Var. v, p. 655.	so	a	see,	mïeets,
	21 *Embleton* 2, Var. v, p. 655.	so	a	séeu,	méeuts,
	22 *Wooler*, Var. vi, p. 655.	SEE	d·)su,		kalents,

1	ɹu	séi	nuu	dhut	a)z	r$_o$iit	ubuut	dhat	bit
2	ɹu	séi	nóu	dhat	à)m	ri$_1$it	ubóut	dhat	lit'l
3	ɹu	sii	nuu	dhut	aa)z	riit	ubuut	dhat	lit'l
4	ɹu	see	nóu	dhut	aa)z	réit	ubóut	dhat	lit'l
5	ɹu	see	nóu	dhat	a)m	réit	ubóut	dhat	lit'l
6	ɹu	sii	nɜ'u	dhut	à)m	rìt	ubóut	dhat	lit'l
7	ɹu	si$_1$i	nuu	dha[1]t	à[1])m	réit	ubuut	dha[1]t	lit'l
8	ɹu	sii	nóu	dhut	a)m	riit	ubuut	dhat	lit'l
9	ɹu	si$_1$i	nœ$_1$'u	dha[1]t	a)z	réit	ubùt	dha[1]t	lit'l
10	ɹi	sii	nuu	it	a[1])m	riit	a[1]buut	dha[1]t	bit
11	ɹo	sii	nu	it	a[1])z	riit	ubuut	dhat	lit'l
12	ɹu	sii	nú$_1$u	dhat	a[1])m	riit	ubuut	dhat	lit'l
13	ɹu	séi	nóu	dhut	à)m	riit	ubuut	dhat	lit'l
14	ɹu$_1$u	séei	nú$_1$u	dhat	a)m	réit	ubú$_1$ut	dhat	lit'l
15	ɹu	see	nóu	dhat	a)m	ráit	ubuut	dhu	lit'l
16	ɹi	séei	nuu	dhat	a[1])m	réit	ubuut	dhat	lit'l
17	ɹu	si$_1$i	nú$_1$u	dhut	a[1])z	riit	ubù$_1$t	dha[1]t	lit'l
18	ɹi	sii	nóu	dhat	a)m	réit	ubuut	dhat	lit'l
19	ɹe	séi	nóu	dhat	a)m	rə'it	ubuut	dhut	lit'l
20	ɹu	sii	nú$_1$u		a)m	ru$_1$ə'it	ubuut	dhat	lit'l
21	ɹu	sii	nuu	dhat	a)m	rə'it	ubuut	dhet	lit'l
22	ɹi	sii	nuu		d)m	rɛ'ikht	ubuut	dhat	bit

Fig A2 Twenty two comparative palaeotype transcriptions of locations in Ellis' North Northern (Ellis 1889: 656-662).

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1	lăs	kumin	fr$_o$ʊ	dhʊ	skíul	ɹondhʊr$_o$.
2	lasi	kumen	from	dhʊ	skíʊl	dhondʊr$_o$.
3	las	kumin	fro	dhʊ	skíul	dhondʊr$_o$.
4	las	kumʊn	free	dhʊ	skíʊl	ɹondʊr.
5	las	kumʊn	free	dhʊ	skíʊl	dhondʊr.
6	thiq	kəmʊn	fro	dhʊ	skíœ$_1$l.	
7	las	kumin	fro	dhʊ	skíul	dhondʊr.
8	las	kœ$_1$mʊn	fre	dhʊ	skĭœ$_1$l	ɹondʊr.
9	las	kœ$_1$mʊn	frʊ	dhʊ	skíiʊl	ɹondʊr$_o$.
10	geerl	kœ$_1$min	free	dhʊ	skíuʊl.	
11	lasi	kœ$_1$min	free	dhʊ	skul	ɹonʊr.
12	las	ku$_1$mʊn	fo)dhʊ		skíœ$_1$l	dhondʊr.
13	las	ku$_1$mʊn	fʍe	dhʊ	skĭœ$_1$l	dhondʊ.
14	las	ko^{1}min	frwom	dhʊ	skuul	ɹondor.
15	lasi	ku$_1$min	frʊm	dhʊ	skuul	ɹondor.
16	lasi	kœ$_1$min	free	dhʊ	skíul	ɹondor.
17	las	kœ$_1$mʊn	fre	dhʊ	skíul	ɹondʊr.
18	gərl	kœ$_1$min	free	dhʊ	skuul	dhondor.
19	lasi	kəmin	free	dhʊ	skuul	ɹondʊr.
20	gĭorl	kœ$_1$min	frw$_1$om	dhʊ	skúuʊl	ɹondor.
21	gərl	kœ$_1$min	free	dhʊ	skíul	ɹondor.
22	lasi	kəmin	frɛɛ	dhʊ	skyy$_1$l	uutbɛ'i.

2.	1	shi)z	ganʊn	duun	dhʊ	róoʊd	dhiiʊr$_o$	thru	dhʊ
	2	shi$_1$i)z	ganʊn	dóun	dhʊ	rood	dhee'r	thróu	dhʊ
	3	shʊ)z	ganʊn	doon	dhʊ	róoʊd	dhéeʊr	thruu	dhʊ
	4	shii)z	ganʊn	dóun	dhʊ	róoʊd	dhɛɛ'ʊ	thruu	dhʊ
	5	shii)z	ganʊn	dóun	dhʊ	róoʊd	dhéeʊ	throo	dhʊ
	6	shì)z	gan	dóun	dhʊ	rood	dhéeʊr	thruu	dhʊ
	7	shi$_1$i)z	ganin	duun	dhʊ	rood	dhéeʊr	thruu	dhʊ
	8	shii)z	ganʊn	duun	dhʊ	rood	dhær	thru	dhi
	9	shii)z	ganʊn	duun	dhʊ	r$_o$úuʊd	dhéʊr$_o$	thr$_o$œ'$_1$u	dhʊ
	10	shii)z	ga^{1}nin	duun	dhʊ	rood	dheer	thruu	dhʊ
	11	shii)z	ga^{1}n	duun	dhʊ	róoʊd	dhʊr	thríu	dhʊ
	12	shi$_1$i)z	ga^{1}nʊn	duun	dhʊ	rood	dheer	thruu	dhʊ
	13	shii)z	gʌʌn	duun	dhʊ	ʍood	dhéeʊ	thʍuu	dhʊ
	14	shii)z	goo)in	dú$_1$un	dhʊ	rwood	dhéeor	thrú$_1$u	dhʊ
	15	shii)z	gaan	ʊlaq	dhʊ	rwood	dheer	thrú$_1$u	dhʊ
	16	shii)z	ganʊn	duun	dhʊ	rod	dheer	thróu	dhʊ
	17	shʊ)z	ga^{1}nʊn	dú$_1$un	dhʊ	rood	dheer	thrú$_1$u	dhʊ
	18	shii)z	gan	duun	dhʊ	rood	dheer	thróu	dhʊ
	19	shii)z	gan	duun	dhʊ	rood	dheer	thróu	dhʊ
	20	shii)z	goonʊn	duun	dhʊ	rw$_1$úuʊd	dhĭeer	thrw$_1$uu	dhʊ
	21	shi)z	gaain	duun	dhʊ	rood	dhéeor	thruu	dhʊ
	22	shii)z	gáʊn	duun	ɹon	rʌʌd		thruu	dhʊ

Fig. A2 (cont.(2))

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1	riid	géʊt	ʊ	dhʊ	lɛft	han	sáid	ʊ	dhʊ wɛɛ.
2	ri₁id	géʊt	ʊ	dhʊ	lɛft	an	sə'id	ʊv	dhʊ rood.
3	riid	gjet	ʊ	dhʊ	lɛft	hand	séid	ʊ	dhʊ wee.
4	reed	[? riid]	geʊt	ʊ	dhʊ	lɛft	an	sáid	
5	reed	[? riid]	géʊt	ʊ	dhʊ	lɛft	an	sáid	ʊ dhʊ lonʊn.
6	riid	gía't	on	dhʊ	lɛft	hand	sə'id	ʊ	dhʊ lonin.
7	riid	gíʊt	ʊ	dhʊ	lɛft	hand	sə'id	ʊ	dhʊ wee.
8	riid	ɹet,	ʊ	dhʊ	lɛft	hand	sə'id	ʊ	dhʊ wee.
9	r₀iid	ɹet,	on	dhʊ	lɛft	han	séid	ʊ	dhʊ wee.
10	riid	ɹet	i)dh		lɛft	hand	séid	iv	dhʊ wee.
11	riid	ɹet	i)dhʊ		lɛft	han	séid	iv	dhʊ wee.
12	riid	geet	o)dhʊ		left	ha'nd	sə'id	ʊ	dhʊ wee.
13	ɹiid	gêeʊt	on	dhʊ	lɛft	han	sə'id	ʊ	dhʊ wee.
14	riid	geet	on	dhʊ	left	hand	sə'id	ʊv	dhʊ wee.
15	riid	geet	on	dhʊ	left	hand	sə'id	ʊ	dhʊ rwood.
16	riid	geet	on	dhʊ	left	hand	séid	ʊv	dhʊ weei.
17	riid	ɹɛt	on	dhʊ	lɛft	ha'nd	sɛ'id	i	dhʊ wee.
18	riid	geet	on	dhʊ	left	han	sə'id	ʊv	dhʊ wee.
19	riid	geet	on	dhʊ	left	hand	sə'id	ʊ	dhʊ wee.
20	rw₁ed	gĭeet	ʊ	dhʊ	left	hand	sə'id	ʊ	dhe wĭee.
21	red	géʊt	ʊ	dhʊ	left	hond	sə'id	ʊ	dhʊ wéeʊ.
22	riid	ɹet	i)dhʊ		left	hand	sɛ'id.		

3.	1	shuuʊr	ʊnœ₁f	dhʊ	béeʊrn	hʊz	géʊn	stráit	u₁p ti
	2	shú₁uʊr	ʊníuf	dhʊ	bæ'ʊrn)z	gíæn		u₁p	tʊ
	3	shuur	inɹœ₁f	dhʊ	béeʊrn	hʊz	gɹen	stréit	up tʊ
	4	shuuʊr	ʊníuf	dhʊ	béeʊrn)z	gòn	strə'it	up	tʊ
	5	shoor	ʊníuf	dhʊ	béeʊn)z	gòn	strə'it	up	tʊ
	6	wə'i		dhʊ	béeʊn)z	gíʊn	strə'it	ho'p	tʊ
	7	shuur	ʊníuf	dhʊ	béeʊ⌊rn)z	gíʊn	strə'it	up	tʊ
	8	shuur	ʊnɹœ₁f	dhʊ	beern)z	gíiʊn	strə'it	œ₁p	tʊ
	9	shíiuʊr	ʊníuf	dhʊ	béeʊr₀n)z	gíiʊn	sthr₀eet	œ₁p	tʊ
	10	shuur	ʊníuf	dhʊ	beern)z	gĭen	stréit	œ₁p	tiv
	11	siir	ʊníuf	dhʊ	beern)z	géin	stréit	œ₁p	tʊ
	12	shuur	ʊnĭœ₁f	dhʊ	béeʊn)z	gíʊn	strə'it	up	tʊ
	13	shúuʊ	ʊníuf	dhʊ	béeʊnz	gíʊn	stʀə'it	u₁p	tʊ
	14	suur	ʊnú₁u	dhʊ	béorn)z	gʌʌn	stréit		tʊ
	15	shuur	ʊníu₁f	dhʊ	béo⌊rn)z	gíʊn	strə'it	ɜp	ti
	16	shuur	ʊníuf	dhʊ	beern)z	gĭen	stréit	œ₁p	tʊ
	17	shúuʊr	ʊníuf	dhʊ	beern)z	gíɛn	strɛ'it	u₁p	ti
	18	shuur	ʊnœ₁f	dhʊ	beern)z	gĭen	strə'it	œ₁p	tʊ
	19	shuur	ʊníuf	dhʊ	beern)z	geen	strə'it	ɜp	tʊ
	20	shœ₁ʊrw₁	ʊnœ₁f	dhʊ	tɹə'ild)z	gon	strw₁ə'it	u₁p	tʊ
	21	shuuor	ʊníuf	t'	tɹə'ild)z	geen	strə'it	u₁p	tʊ
	22	shyy₁r	ʊnuu	dhʊ	beern)z	gáʊn	strɛ'ikht	ɜp	til

Fig. A2 (cont. (3))

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1	dhʊ	dúʊr$_{o}$	ʊ	dhʊ raq	huus,
2	dhʊ	dɜ'r$_{o}$	ʊv	dhʊ raq	h*ó*us,
3	dhʊ	door	ʊ	dhʊ raq	huus,
4	dhʊ	d*ó*ua$_{\llcorner}$r	ʊ	dhʊ r*a*q	h*ó*us,
5	dhʊ	dóoʊ*r*	ʊ	dhʊ *r*aq	h*ó*us,
6				dhʊ *r*aq	*ó*us,
7	dhʊ	dóoʊ*r*	ʊ	dhʊ *r*aq	huus,
8	dhʊ	d*u*$_{1}$ʊ*r*	ʊ	dhʊ *r*aq	huus,
9	dhʊ	dúuʊr	ʊ	dhʊ r$_{o}$aq	huus,
10	dhʊ	duu*r*	*i*v	dhʊ *r*a'q	huus,
11	dhʊ	duu*r*	*i*)dhʊ	ra'q	huus,
12	dhʊ	doo*r*	o)dhʊ	ra'q	huus,
13	dhʊ	dóoʊ	ʊ	dhʊ ʍaq	huus,
14	dhʊ	doo*r*	ʊ	dhʊ *r*aq	huus,
15	dhʊ	duu*r*	ʊ	dhʊ *r*aq	huus,
16	dhʊ	duu*r*	ʊv	dhʊ *r*aq	huus,
17	dhʊ	dò*r*	*i*	dhʊ *r*a'q	h*ʊ*$_{1}$s,
18	dhʊ	duuʊ*r*	ʊv	dhʊ *r*aq	huus,
19	dhʊ	duuʊ*r*	ʊ	dhʊ *r*aq	huus,
20	dhʊ	duuo*r*	ʊ	dhʊ *rw*$_{1}$aq	huus,
21	dhʊ	duuʊ*r*	ʊ)dh	*r*aq	huus,
22	dhʊ	duu*r*	ʊ)dhʊ	*r*aq	huus,

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4. 1	wíʊr$_{o}$	sh*i*)l	hap'n		f*i*nd	dhat	dr*u*k'n	diif
2	wheer$_{o}$	mɛ)b*i*	shii)l		f*i*nd	dhat	dr*u*k'n	d*i*$_{1}$if
3	wéeʊr	sh*i*)l	ʊv ʊ tɟans	tʊ	f*i*nd	dhat	dr*u*k'n	diif
4	wéeʊ	shii)l	mɛ)bi		f*i*nd	dhat	dr*u*k'n	diif
5	wéeʊ*r*	shi)l	mɛ)b*i*		f*i*nd	dhat	dr*u*k'n	diif
6	wéeʊr	shii)l	mɛ)b*i*		f*i*nd	dhat	dr*o*'k'n	diif
7	whéeʊr	shii)l	mɛ)b*i*		f*i*nd	dha't	dr*u*$_{1}$k'n	diif
8	whee*r*	shii)'l	hap'n	tʊ	f*i*nd	dhat	drœ$_{1}$k'n	diif
9	whéeʊr$_{o}$	shi)l	mɛ)b*i*		f*i*nd	dha't	drœ$_{1}$k'n	díif
10	whee*r*	shii)l	mɛ)b*i*		f*i*nd	dhat	d*r*œ$_{1}$k'n	diif
11	whʊr	shii)l	mɛviz		f*i*nd	dhet	d*r*œ$_{1}$k'n	diif
12	wee*r*	shii)l	mɛv*i*		f*i*nd	dhat	d*r*œ$_{1}$k'n	diif
13	wéeʊ	shii)l	mɛb*i*		f*i*nd	dhat	dʍ*u*$_{1}$k'n	diif
14	whéeo*r*	shii)l	mɛb*i*z		f*i*nd	dha't	d*r*u$_{1}$k'n	diif
15	whee*r*	shii)l	mɛb*i*z		f*i*$_{1}$nd	dhat	d*r*ɜk'n	diif
16	whee*r*	shʊ wœ$_{1}$l	mɛb*i*z		f*i*nd	dha't	d*r*œ$_{1}$k'n	diif
17	whee*r*	shʊ)l	mɛv*i*z		f*i*nd	dha't	d*r*u$_{1}$k'n	dìf
18	whee*r*	shi·wœ$_{1}$l	mɛb*i*		f*i*nd	dhat	d*r*œ$_{1}$k'n	diif
19	whee*r*	shii)l	ɟ*i*b'lz		f*i*nd	dhat	d*r*œ$_{1}$k'n	diif
20	whéo*r*	shi)l	hap'n	tʊ	fɔ'*i*nd	dhat	d*rw*$_{1}$œ$_{1}$k'n	diif
21	whéo*r*	shi)l	tɟans	tʊ	fɔ'*i*ʊnd	dhat	d*r*œ$_{1}$k'n	diif
22	whʌʌ*r*	shii)l	mɛb*i*		f*i*nd	ɟon	d*r*ɜk'n	diif

Fig. A2 (Cont. (4))

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1	kiz'nd	up	fɛlʊ,	bi	dhʊ	néʊm	ʊ :tomʊs.
2	wiz'nd		fɛlʊ	ʊ	dhʊ	neem	ʊv :tom.
3	wiz'nd		fɛlʊ	ʊ	dhʊ	nɟem	ʊ :tomʊs.
4	wiz'nd		fɛlʊ	ʊ	dhʊ	néeʊm	ʊ :tomʊs.
5	wïz'nd		felʊ	ʊ	dhʊ	néeʊm	ʊ :kɛlʊ.
6	wiz'nd		div'l,	ʊ	dhʊ	níàm	ʊ :tomʊs.
7	wiz'nd		felʊ	ʊ	dhʊ	níʊm	ʊ :tom.
8	wiz'nd		felʊ	ʊ	dhʊ	níiʊm	ʊ :tomʊs.
9	kiz'nd		felʊ	ʊ	dhʊ	níiʊm	ʊ :tomi.
10	wuz'nd		felʊ	i)dh		nĭem	iv :tomʊs.
11	wos'nd		felʊ	iv	dhʊ	néim	iv :tomis.
12	wiz'nd		tɟɛp	ʊ)dhʊ		nĭɛm	ʊ :tom.
13	shʍiv'ld		felʊ	ʊv	dhʊ	nĭem	ʊv :tomʊs.
14	shrwiv'ld		fɜlʊ	ʊ	dhʊ	néeʊm	ʊ :tom.
15	staarvd		fælʊ	ʊ	dhʊ	níɛm	ʊ :tom.
16			fælʊ	ʊv	dhʊ	níɛm	ʊv :tom.
17	wiz'nd		fɛlʊ	i	dhʊ	níɛm	ʊ :tomʊs.
18	shrœ₁k'n		fɛlʊ	ʊ	dhʊ	nĭem	ʊv :tomʊs.
19	wœ₁z'nt		felʊ	ʊ	dhʊ	neem	ʊ :tomʊs.
20	widhord		felʊ	ʊ	dhʊ	nĭeem	ʊv :tomʊs.
21	shriv'ld		felʊ	ʊ	dhʊ	néeʊm	ʊ :tomʊs.
22	lɛ'iʊrt		fælʊ			kaad	:tomʊs.

5.	1	wi	aal	ken	ʊm	vari	wiil.
	2	wi	ʌʌl	naa)'m		wi₁il	ʊnúuf.
	3	wi	aal	ken	ʊn	vari	wiil.
	4	wi	aal	naa	im	vɛri	weel [? wiil].
	5	wi	aal	noo	im	veri	weel [? wiil].
	6	wi	ʌʌl	noo	im	vɛri	wiil.
	7	wi	ool	kɛn	im	vari	wiil.
	8	wi	oo	kɛn	ʊm	varʊ	wiil.
	9	wi	œ'₁	nœ₁')ʊm		var₀a	wiil.
	10	wi	aa	ken	him	verʊ	wiil.
	11	wi	aa	ken	im	verʊ	wiil.
	12	wi)a'l		na'	im	va'ri	wiil.
	13	wi	aal	naa	im	vaʍi	wiil.
	14	wi	aal	naa	im	va⌊ri	wiil.
	15	wi₁	aal	naa	im	vari	wiil.
	16	wi	aa	naa)m		varʊ	wiil.
	17	wi₁i	aa'l	kɛn	ʊm	va'rʊ	wi₁il.
	18	wi	aa	naa	him	verʊ	wiil.
	19	wi	aa	naa	im	vari	wiil.
	20	wi	aa	nhoo	im	veerw₁i	wiil.
	21	wi	aal	nhoo	im	vái	wiil.
	22	wi	aa	kɛn	im	varʊ	wiil.

[2092]

Fig. A2 (cont. (5))

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6.	1	winʊt	dhʊ	aad	tɟap	síun	tíiʊtɟ	ʊr	not	tʊ dii)t
	2	winʊt	dhʊ	ʌʌd	tɟap	síʊn	lɛrn	ʊr	not	tʊ di)d
	3	winʊt	dhʊ	aad	tɟɛp	síun	léeʊrn	ʊr	nut	tʊ di)d
	4	winʊt	dhʊ	aad	tɟap	síʊn	teetɟ	ʊr	not	tʊ di)d
	5	winʊt	dhʊ	aad	tɟap	síʊn	larn	ʊ	not	tʊ di)d
	6	winʊt	dhʊ	aad	tɟap	síun	lərn	ʊr	not	tʊ trə'i it
	7	winit	dhʊ	ood	tɟa'p	síun	léorn	ʊr	not	tʊ di)d
	8	wu₁nʊt	dhi	ood	tɟap	síiʊn	léorn	ʊr	not	tʊ di)d
	9	wunʊt	dhʊ	ood	tɟap	síiʊn	líiʊr₀n	hʊr₀	nit	tʊ dii
	10	wœ₁nit	dh)aad		tɟɛp	síuʊn	leern	ʊr	nut	tʊ di)d
	11	wœ₁nit	dh)aad		tɟap	síun	leen	ʊr	no)ʊ	tʊ di)d
	12	wint	dhi	aad	tɟɛp	sĭœ₁n	léorn	ʊr	not	tʊ di)d
	13	winit	dhʊ	aad	tɟɛp	síʊn	laan	ʊ	not	tʊ di)d
	14	wi₁nʊt	dhʊ	aald	tɟɛp	síʊn	léœrn	or	not	tʊ di)d
	15	wad'nt	dhi₁	aad	man	síʊn	léorn	or	nat	tʊ di)d
	16	wœ₁l'nt	dhi	aad	tɟɛp	síun	léorn	hor	not	tʊ di)d
	17	winʊt	dhʊ	aa'd	tɟɛp	síun	leern	or	not	tʊ di)d
	18	wonʊt	dhi	aad	tɟɛp	sĭœ₁n	tiitɟ	or	not	tʊ di)d
	19	wœ₁nʊt	dhʊ	ad	tɟɛp	síun	tiitɟ	hor	not	tʊ di)d
	20	wóʊ)nt	t'	aad	tɟɛp	síun	larn	hor	nu₁t	tʊ duu it
	21	wóʊ)nt	t'	óud	tɟɛp	suun	teetɟ	or	not	tʊ duu)t
	22	wɜl	dh)aald		tɟap	noo	shyy₁r	laarn	hor	noo tʊ dii)t

1	ʊgéʊn,	póuʊr	thiq !
2	ʊgíʊn,	poor	thiq !
3	ʊgɟɛn,	púuʊr	thiq !
4	ʊgíun,	póoʊr	thiq !
5	ʊgéán,	póoʊr	thiq !
6 on	ʊgíʊn,	púuʊ	béeʊn !
7	ʊgíʊn,	piir	thiq !
8	ʊgíiʊn,	pyyr	thiq !
9	ʊgíiʊn,	péeʊr	thiq !
10	ʊgeen,	puur	thiq !
11	ʊgéin,	puur	thiq !
12	ʊgĭɛn,	puur	thiq !
13	ʊgíiʊn,	póoʊ	thiq !
14	ʊgíʊn,	puur	thiq !
15	ʊgí₁ʊn,	puur	thi₁q !
16	ʊgéin,	píur	thiq !
17	ʊgíɛn,	pŭ₁r	thiq !
18	ʊgĭen,	puuʊr	thiq !
19	ʊgin,	puur	thiq !
20	ʊgen,	puur	thiq !
21	ʊgen,	puuor	thiq !
22	ʊgin,	pyy₁r	thiq !

[2093]

Fig. A2 (cont. (b))

28

7.	1 líuk	*i*z'nt	*ɐ*t	tríu?
	2 l*u*$_1$k	*i*z'nt	*i*t	tr*ó*u?
	3 l*u*k	*i*z'nt	*i*t	truu?
	4 l*u*k	*i*z'nt	*i*t	tr*uu*?
	5 l*u*k	*i*z'nt	*i*t	tr*oo* [? truu]?
	6 líuk!	*i*z'nt	dhat	truu?
	7 líœ$_1$k!	*i*z'nt	*i*t	t*r*uu?
	8 líiɐk!	*i*z'nt	*i*t	sii?
	9 líiɐk!	*i*z'nt	*i*t	tr*íu*?
	10 líukstɐ!	*i*z'nt	*i*t	t*r*uu?
	11 líukɐ!	*i*z'n	t)*i*t	truu?
	12 l*u*$_1$k!	*i*z'nt	*i*t	t*r*uu?
	13 lɜk!	*i*z'nt	*i*t	trɐuu?
	14 luuk!	*i*z'nt	*i*t	t*r*uu?
	15 lùk!	*i*z'nt	*i*t	t*ró*u?
	16 líuk!	*i*z'nt	*i*t	t*r*uu?
	17 l*u*$_1$kɐ!	*i*z'nt	*i*t	tr*ú*$_1$u?
	18 luuk!	*i*z'nt	*i*t	truu?
	19 luuk!	*i*z'nt	*i*t	t*ró*u?
	20 lœ$_1$k!	*i*z'nt	*i*t	t*rw*$_1$uu?
	21 luuk!	*i*z'nt	*i*t	t*r*uu?
	22 luuk!	*i*z)t	n*o*	t*r*uu?

Fig. A2 (cont.(7))

Figure A3: Mean pair-disparity indices for three analysts and four informants (including the three analysts) by stressed V phonemes

Informants

Phoneme	/ɪ/				/i/				/eɪ/				/ɛ/			
Pairs	*A-B*	*A-C*	*B-C*	Mean	*A-B*	*A-C*	*B-C*	Mean	*A-B*	*A-C*	*B-C*	Mean	*A-B*	*A-C*	*B-C*	Mean
A	1	3	3	2·3	6	5	2	4·3	3	5	6	4·6	3	3	3	3·0
B	3	4	4	3·6	6	7	1	4·6	3	3	6	4·0	3	2	1	2·0
C	3	3	4	3·3	5	6	2	4·3	7	6	4	5·6	2	2	2	2·0
X	1	3	4	2·6	3	4	3	3·3	1	4	5	3·3	3	3	2	2·6
Means	2·00	3·25	3·75		5·00	5·50	2·00		3·50	4·50	5·25		2·75	2·50	2·00	

Phoneme	/æ/				/ɑ/				/ɒ/				/ɔ/			
Pairs	*A-B*	*A-C*	*B-C*	Mean	*A-B*	*A-C*	*B-C*	Mean	*A-B*	*A-C*	*B-C*	Mean	*A-B*	*A-C*	*B-C*	Mean
A	1	2	2	1·6	1	3	2	2·0	2	2	2	2·0	4	3	1	2·6
B	3	1	3	2·3	1	1	0	0·6	2	3	2	2·3	5	3	3	3·6
C	4	1	4	3·0	0	1	1	0·6	2	3	2	2·3	4	3	2	3·0
X	3	2	2	2·3	0	2	2	1·3	2	2	2	2·0	1	2	1	1·3
Means	2·75	1·50	2·75		0·50	2·00	1·00		2·00	2·50	2·00		3·50	2·75	1·75	

Phoneme	/ʌ/				/oω/				/u/				/ɪu/			
Pairs	*A-B*	*A-C*	*B-C*	Mean	*A-B*	*A-C*	*B-C*	Mean	*A-B*	*A-C*	*B-C*	Mean	*A-B*	*A-C*	*B-C*	Mean
A	1	2	1	1·3	6	6	6	6·0	4	5	1	3·3	4	1	3	2·6
B	3	2	2.	2·3	12	11	14	12·3	3	2	4	3·0	3	3	3	3·0
C	6	7	3	5·3	9	7	11	9·0	4	4	0	2·6	4	2	2	2·6
X	3	1	3	2·3	4	3	3	3·3	4	5	3	4·0	2	2	4	2·6
Means	3·25	3·00	2·25		7·75	6·75	8·50		3·75	4·00	2·00		3·25	2·00	3·00	

Phoneme	/ɜ/				/aɪ/			
Pairs	*A-B*	*A-C*	*B-C*	Mean	*A-B*	*A-C*	*B-C*	Mean
A	3	2	3	2·6	3	5	4	4·0
B	3	3	3	3·0	6	4	2	4·0
C	2	2	4	2·6	3	2	3	2·6
X	4	2	3	3·0	5	5	2	4·0
Means	3·00	2·25	3·25		4·25	4·00	2·75	

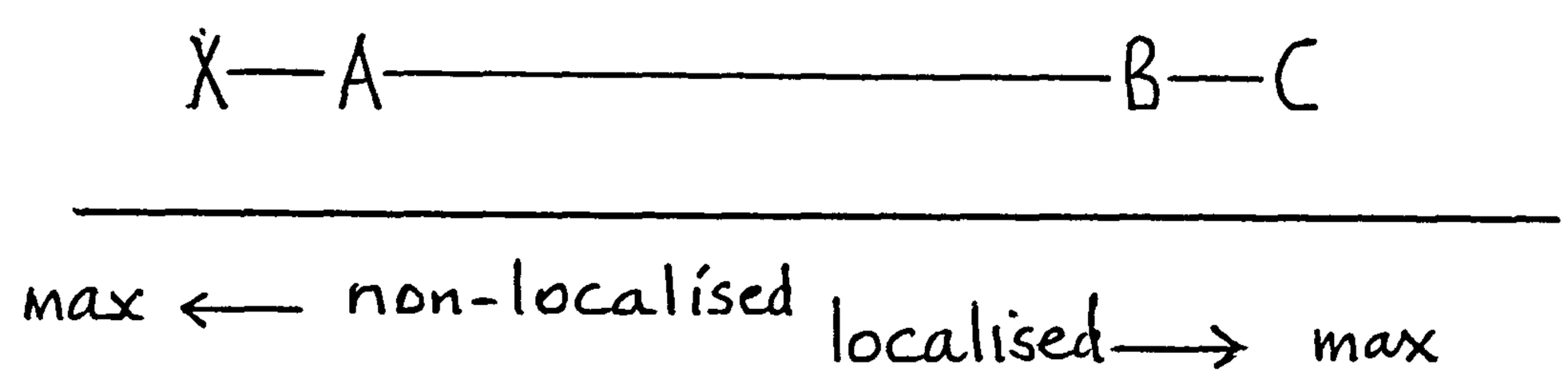


Figure A4: Linear representation of whole-variety localisation of informants X, A, B, C (the sources of data for Fig. A3)

Figure A5: The reasonableness of expectation A - that the transcriptional disparity between pairs of analysts is proportional to the linguistic distance between them (data from Figs. A3 & A4).

	Informant		
	B	C	Σ
Phoneme			
ɩ	x	x	x
i	√	√	√
eɩ	x	√	x
ɛ	√	?	√
a	x	x	x
ɑ	√	x	(√)
ɒ	x	(√)	(√)
ɔ	(√)	√	√
ʌ	(√)	√	√
oʊ	x	x	x
u	x	(√)	√
ɩu	?	(√)	(√)
ɜ	?	x	x
aɩ	√	√	√
14	4(6)	5(8)	6(9)

where: √ indicates that the expectation is confirmed,
x that it is contradicted,
? that it is equivocal, and
(√) that it is only marginally confirmed.

Figure A6: The reasonableness of expectation B - that the transcriptional disparity between pairs of analysts in respect of some informant increases as the sum of their linguistic distances from the informant increases (data from Figs. A3 & A4).

	Disparity in respect of informant X		
	(B-C)>(A-C)	(A-C)>(A-B)	Σ (i.e. (B-C)>(A-B))
Phoneme			
ɪ	√	√	√
i	x	√	?
eɪ	√	√	√
ɛ	x	?	x
a	?	x	x
ɑ	?	√	√
ɒ	?	?	?
ɔ	x	√	?
ʌ	√	x	?
oʊ	?	x	x
u	x	√	x
ɪu	√	?	√
ɜ	√	x	x
aɪ	√	?	x
	14	6	6	4

where: √ indicates that the expectation is confirmed,
x that it is contradicted, and
? that it is equivocal.

Figure A7: Disparity indices for analysts, as performers and hearers, on random sequences of cardinal vowels.

	A-B[1]	B-A	Pair mean[2]	A-C	C-A	Pair mean	B-C	C-B	Pair mean
i	1	0	0	0	1	0	1	2	1
e	0	1	0	1	5	3	3	4	3
ɛ	4	1	2	1	2	1	2	2	2
a	2	2	2	1	2	1	2	2	2
ɑ	1	2	1	1	1	1	4	0	2
ɔ	0	2	1	1	0	0	3	3	3
o	1	3	2	1	2	1	2	3	2
u	1	3	2	3	0	1	2	1	1
y	4	2	3	6	1	3	1	1	1
ø	3	3	3	2	6	4	2	5	3
œ	2	2	2	1	1	1	2	4	3
ɒ	5	1	3	3	3	3	2	3	2
ʌ	5	*	(2)	1	5	3	*	3	(1)
ɤ	1	5	3	1	8	4	3	7	5
ɯ	3	4	3	1	4	2	3	2	2
Means, all CVs, per pair	2.20	2.21		1.60	2.73		2.28	2.80	
	2.20			2.16			2.55		
CVs 1-8 only	1·25	1·75		1·12	1·62		2·37	2·12	
	1.50			1.37			2.25		

Notes: 1 The performer appears first in each pair, the hearer second.
2 Rounded down.
* Speaker B did not record any realisations of CV 14 [ʌ].

Figure A8: Summed mean disparity index, by pairs of analysts, for four informants.

Informants:	A	B	C	X	mean	range
Pairs:						
A-B	3.00	4.00	3.92	2.57	3.37	1.43
A-C	3.35	3.50	3.50	2.85	3.30	0.65
B-C	2.78	3.42	3.14	2.78	3.03	0.64
mean	3.04	3.64	3.52	2.73		
range	0.57	0.58	0.78	0.28		

Figure A9: Summed mean disparity index, by pairs of analysts, for four informants, normalised by CV disparity scores[1].

Informants	A	B	C	X	mean	range
Pairs						
A-B	1.50	2.50	2.42	1.07	1.87	1.43
A-C	1.98	2.13	2.13	1.48	1.73	0.65
B-C	0.53	1.17	0.89	0.53	0.78	0.64
mean	1.34	1.90	1.80	1.02		
range	1.45	1.33	1.53	0.95		

1: Disparity indices normalised by subtracting the CV 1-8 mean (Fig. A7) from the summed mean disparity indices (Fig. A8). See text for critical remarks and alternatives.

NB

Figures A10 to A17

are presented in a pocket

at the back of Vol. 3.

Figure B1

Abstract	Concrete	Variabilities inherent in representation	Type of social information	Function	Prime mover
Prosodic and paralinguistic systems	Formal representation of differences in duration, frequency & amplitude in each utterance	Realisational variability	Intrinsic	Regulatory	Projection by speaker
		Varietal variability	Extrinsic	Indexical	Construal by hearer

A dichotomy of intonational variability.

Figure B2

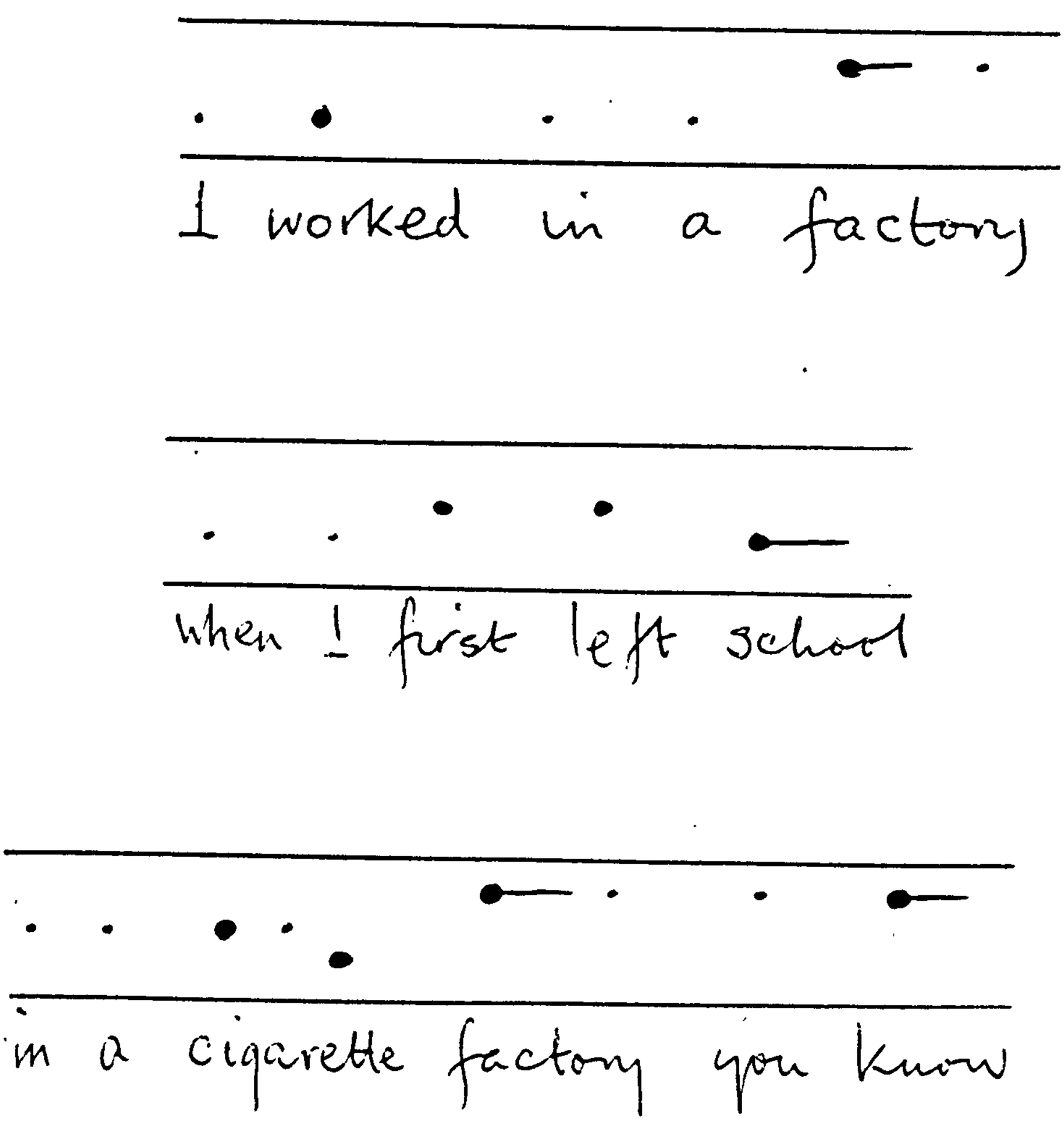

I worked in a factory
when I first left school
in a cigarette factory you know

Figure B3 a, b, c, d

a % simple finite positive declarative clauses realised with

speakers	\	/	—	V	^	\+/	/+\	
g	70	20			10			100
h	40		40				20	100
i	30	70						100
j	10	10	10	10	60			100

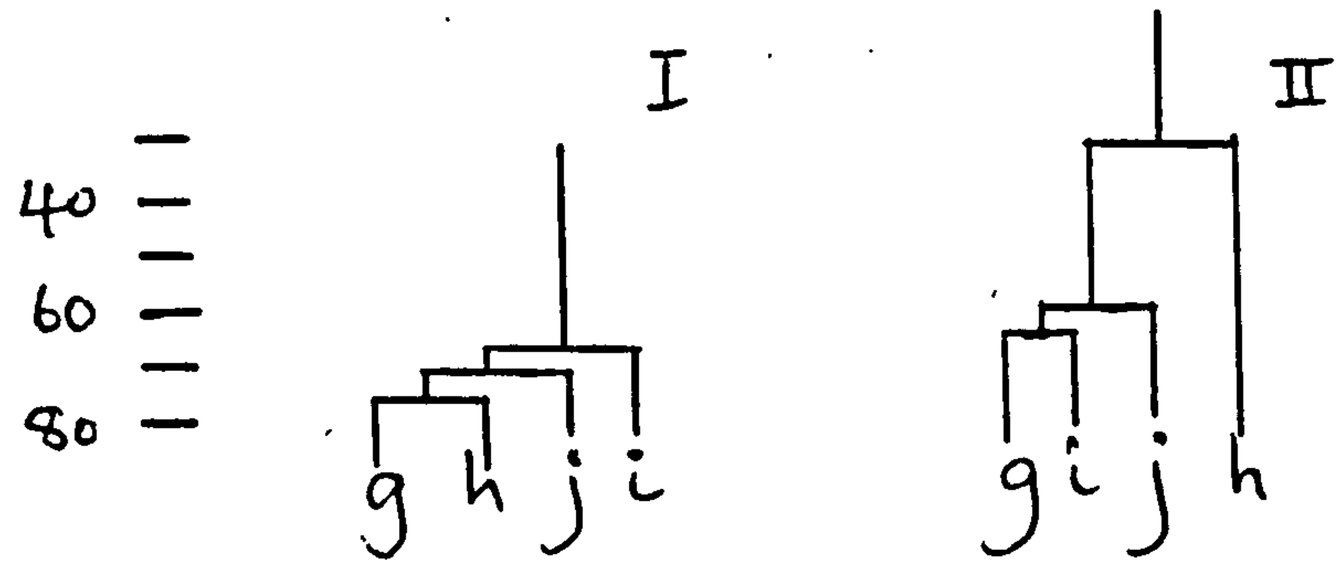
b binarised[1]

g	+	(+)	—	—	[(+)]	—	—
h	+	—	+	—	—	—	(+)
i	(+)	+	—	—	—	—	—
j	[(+)]	[(+)]	[(+)]	[(+)]	+	—	—

c Possible similarity relations

speaker pairs	I kind & degree[2]	II all kinds[3]		III kinds above 10%[3]		IV majority variant only[3]	
g–h	·76	1/5	·20	1/4	·25	1/2	·50
g–i	·66	2/3	·66	2/2	1·00	0/2	0
g–j	·72	3/5	·60	0/3	0	0/2	0
h–i	·65	1/4	·25	1/4	·25	0/3	0
h–j	·72	2/6	·33	0/4	0	0/3	0
i–j	·68	2/5	·40	0/2	0	0/2	0

d Dendrogram for cols. I & II of c.



Four ways of handling the similarity relations of '% simple, finite, positive, declarative clauses realised with F, R, L, FR, RF, FpR, RpF'.

(Notes overleaf)

B3e

Notes for Figures B3b & B3c.

1. Major variants as '+', minor ones as '(+)'. The definitions of 'major' and 'minor' are arbitrary numerical cut-offs. Variants < 10% as '[(+)]'.

2. These coefficients consist of the 1-complement of the sum of the differences between two speakers divided by 100 times the number of comparisons. A 'comparison' is counted for some pair of speakers each time one of them has a positive score on some tone.

3. Only positive matches counted in the numerator. ('Comparison' same as for 2. above.)

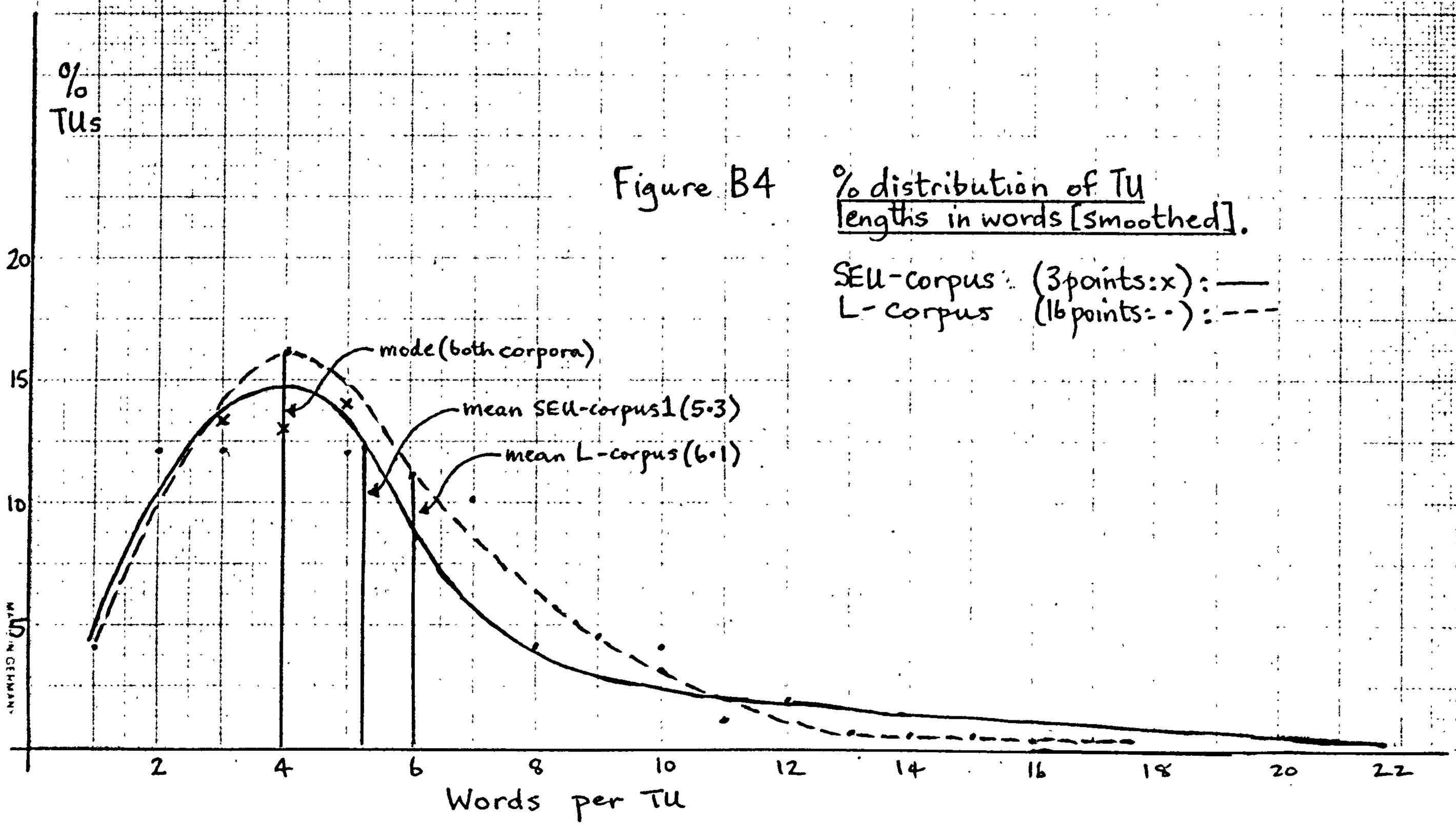
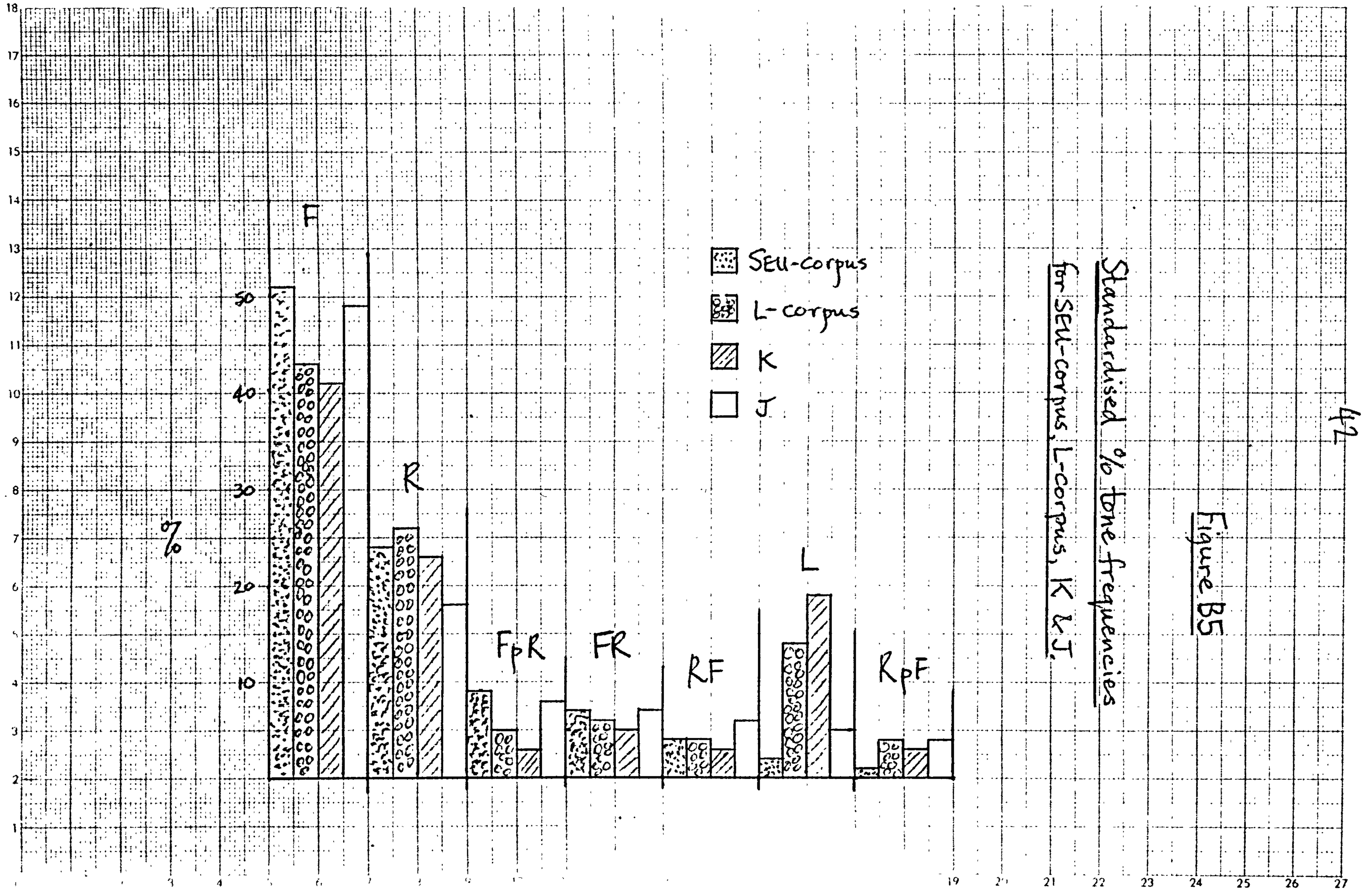


Figure B4 % distribution of TU lengths in words [smoothed].

SEU-corpus: (3 points: x): ——
L-corpus (16 points: ·): - - -

Figure B4



Standardised % tone frequencies for SEU-corpus, L-corpus, K & J.

Figure B5

Figure 66(a)
(see also 66(b))

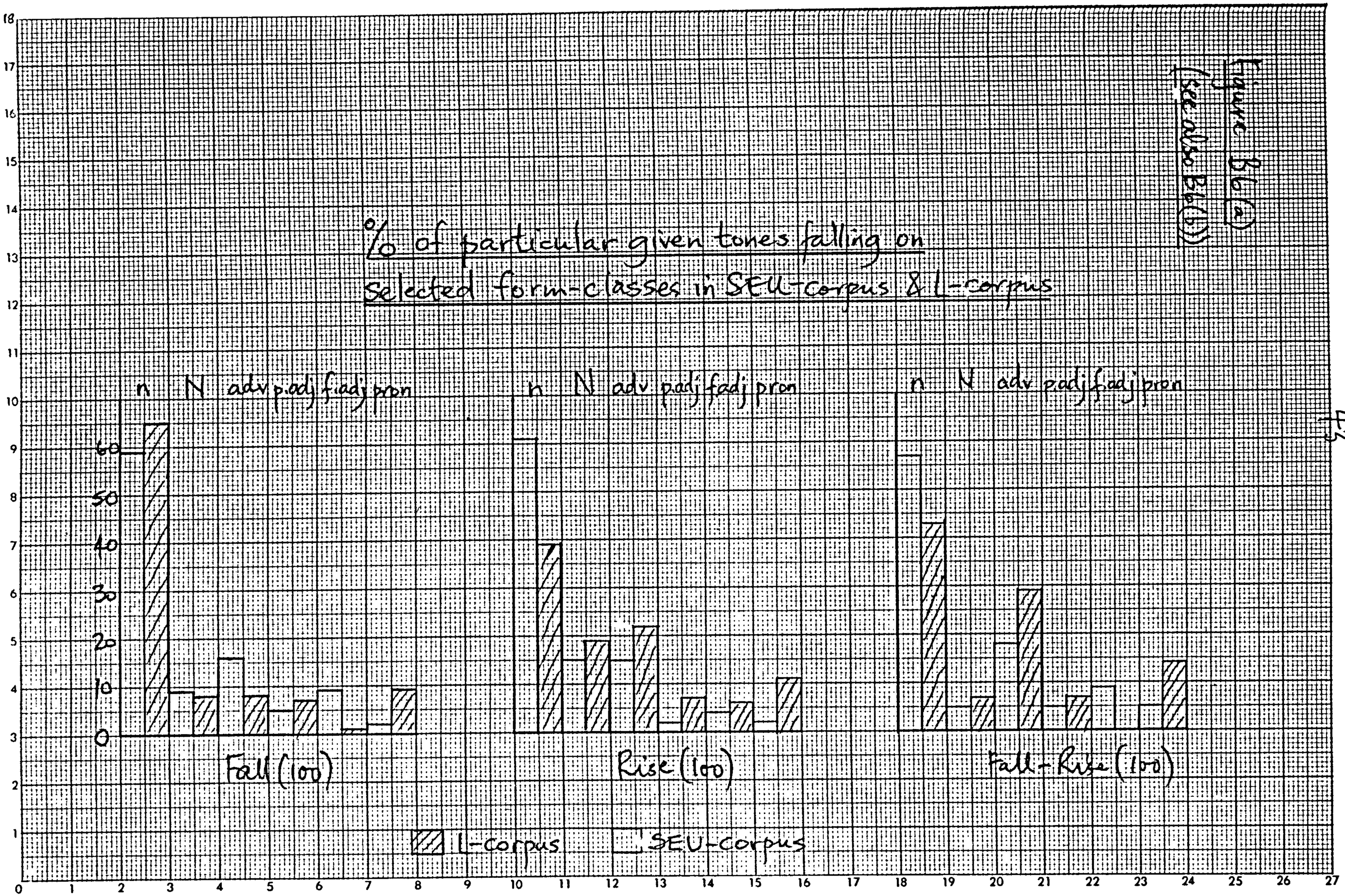


Figure B6(b)
Continuation of B6(a)

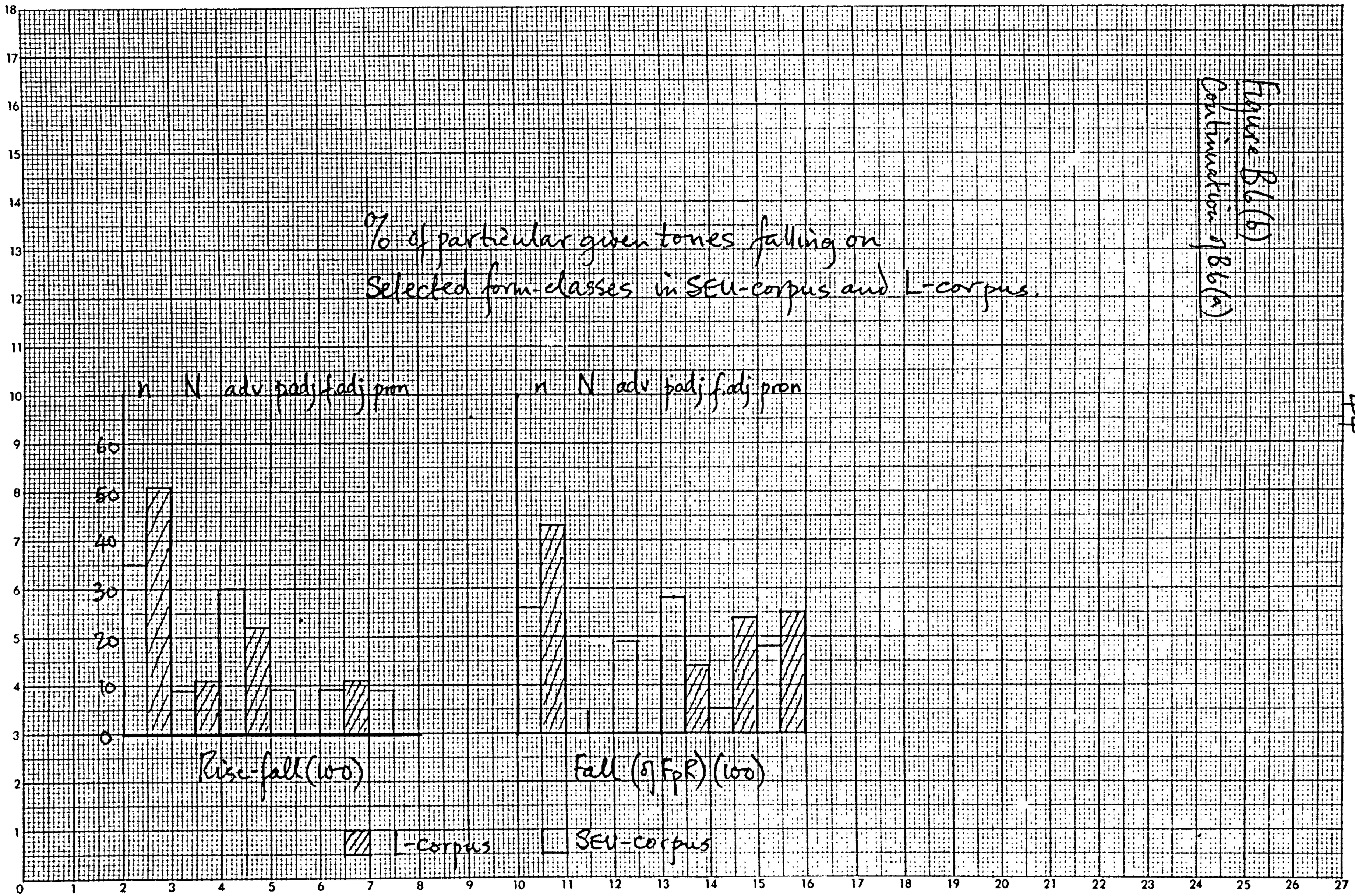


Figure B7(a)
(see also B7(b))

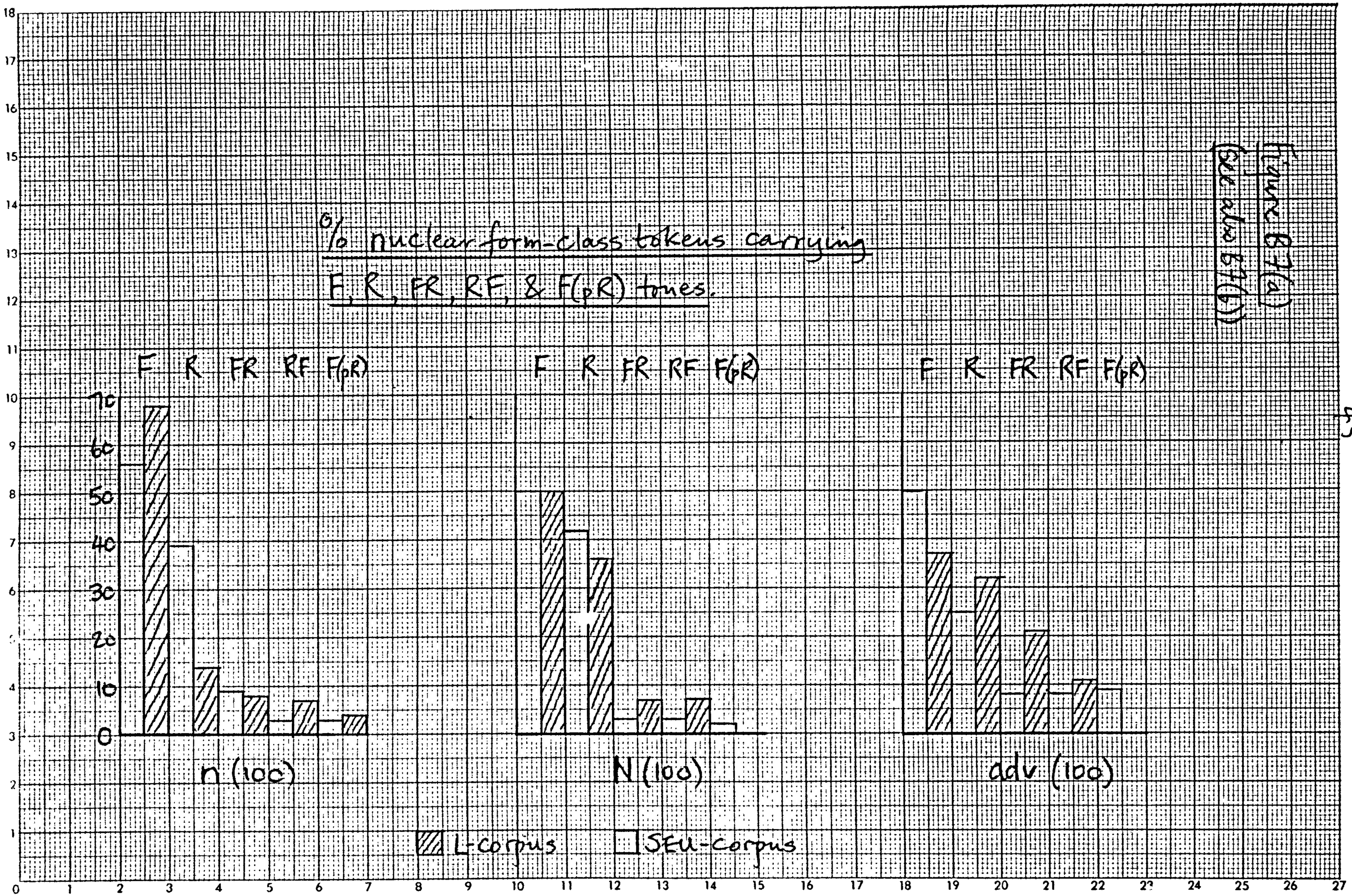


Figure 87(b)
(Continued from 87(a))

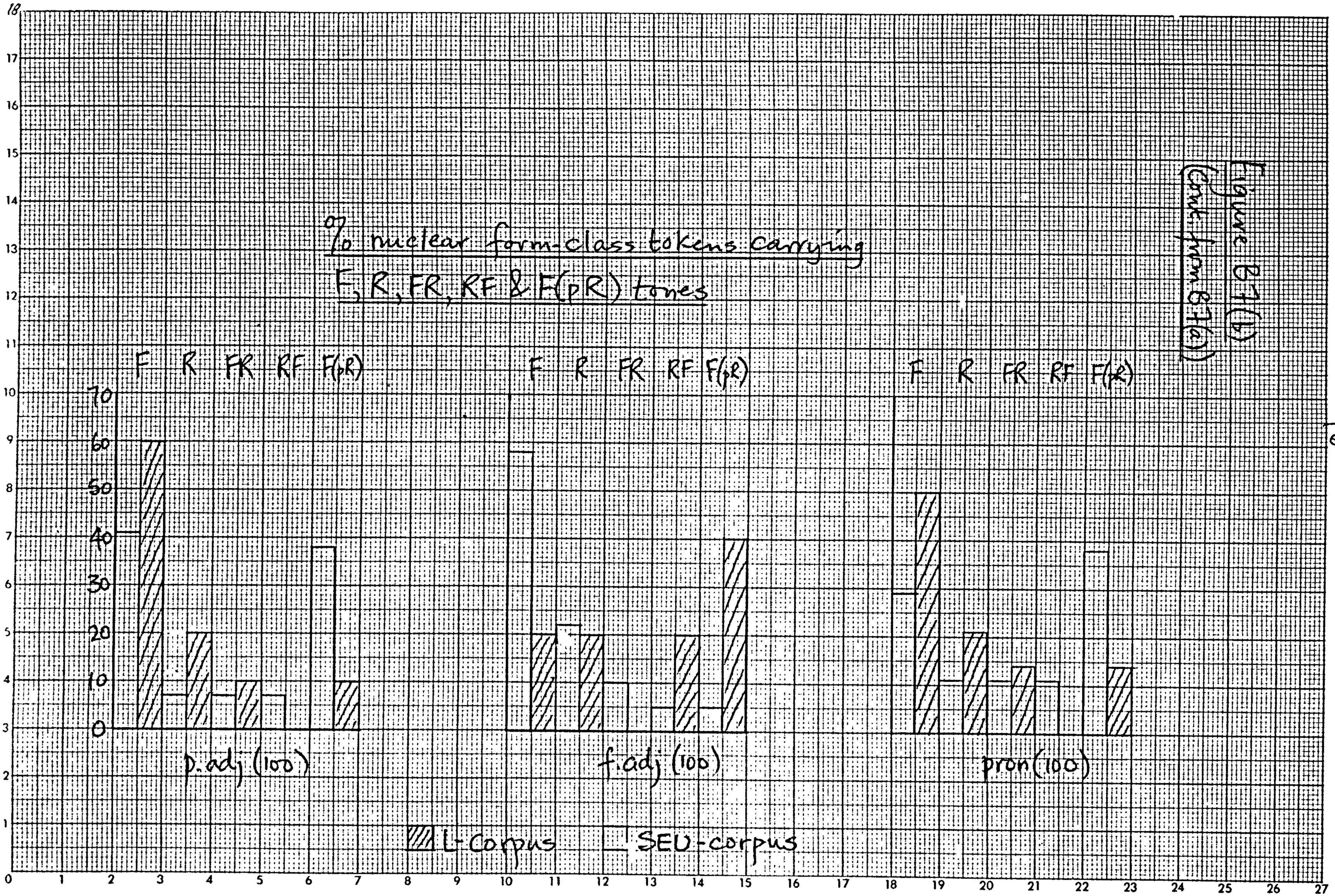


Figure B8 Rawscore distributions of L, R, F tones on pitch range properties of TUs.

Pr term next before nucl.	Pr term at nucl. syll.		SEU-text (127) L (6)	R (35)	F (86)	L-corpus (≐ K and J) (193) L (36)	K (31)	J (5)	(132) R (50)	K (30)	J (14)	(61) F (106)	K (64)	J (42)
Ø	Ø	1	4	19	39				12	(7,5)		10	(7,3)	
,	Ø	2							2	(2,0)		1	(0,1)	
;	Ø	3							5	(4,1)				
:	Ø	4		7	6				2	(0,2)		26	(14,12)	
Ø	,	5		1					5	(4,1)				
Ø	;	6				1	(1,0)		1	(1,0)				
,	;	7							1	(1,0)				
:	,	8		2		1	(1,0)		7	(5,2)		1	(1,0)	
!!	,	9			1							2	(1,1)	
:	;	10							3	(3,0)		2	(2,0)	
!	:	11				2	(2,0)		1	(1,0)				
Ø	:	12	2	3	16	8	(6,2)		1	(1,0)		21	(11,10)	
Ø	!	13			9	3	(3,0)		1	(0,1)		10	(5,5)	
Ø	!!	14			1							2	(2,0)	
,	:	15				3	(3,0)		4	(2,2)		10	(9,1)	
;	:	16				2	(2,0)		1	(1,0)		3	(3,0)	
,	!	17			1	6	(6,0)					1	(1,0)	
;	!	18				6	(6,0)		1	(1,0)		2	(1,1)	
,	!!	19				2	(1,1)		1	(1,0)		1	(1,0)	
:	:	20		2	9				2	(2,0)		9	(2,7)	
:	!	21			4	1	(0,1)					3	(3,0)	
!	!	22										1	(1,0)	
:	!!	23				1	(0,1)					1	(1,0)	

Figure B9

Distributions of B8 as percentages

Combination no. as Fig. B8	SEU-text (300)			L-corpus (300)			L		R		F	
	L (100)	R (100)	F (100)	L (100)	R (100)	F (100)	K (100)	J (100)	K (100)	J (100)	K (100)	J (100)
1	67	54	45		24	9			19	36	11	7
2					4				6			2
3					10				11	7		
4		20	7		4	27				14	22	29
5		3			10				11	7		
6				3	2		3		3			
7					2				3			
8		6		3	14		3		14	14		2
9			1			1					2	
10					6	2			8		3	
11				5	2		6		3			
12	35	9	19	22	2	18	25	40	3		17	24
13			10	8	2	9	9			7	8	12
14			1			1					3	
15				8	8	9	9		6	14	14	2
16				5	2	3	6		3		5	
17			1	16			19				2	
18				16	2	1	19		3		2	2
19				5	2		6	20	3		2	
20		6	10		4	9			6		3	17
21			5	3		3	2	20			5	
22											2	
23				3			2	20			2	

Figure B10

Table of % distributions of F R L tones with generalized pitch range terms at the nuclear syllable.

Pitch Generalized nuclear syllable		Fall SEU %	Fall J %	Fall Loc %	Fall K %	Rise SEU %	Rise J %	Rise Loc %	Rise K %	Level SEU %	Level J %	Level Loc %	Level K %
Ø }	Ø	52	38	35	33	74	57	42	36	(67)	0	0	0
; }	A	(1)	5	5	5	(9)	21	36	42	0	0	11	13
·····! }	B	46	57	60	62	16	21	22	22	(33)	(100)	89	87

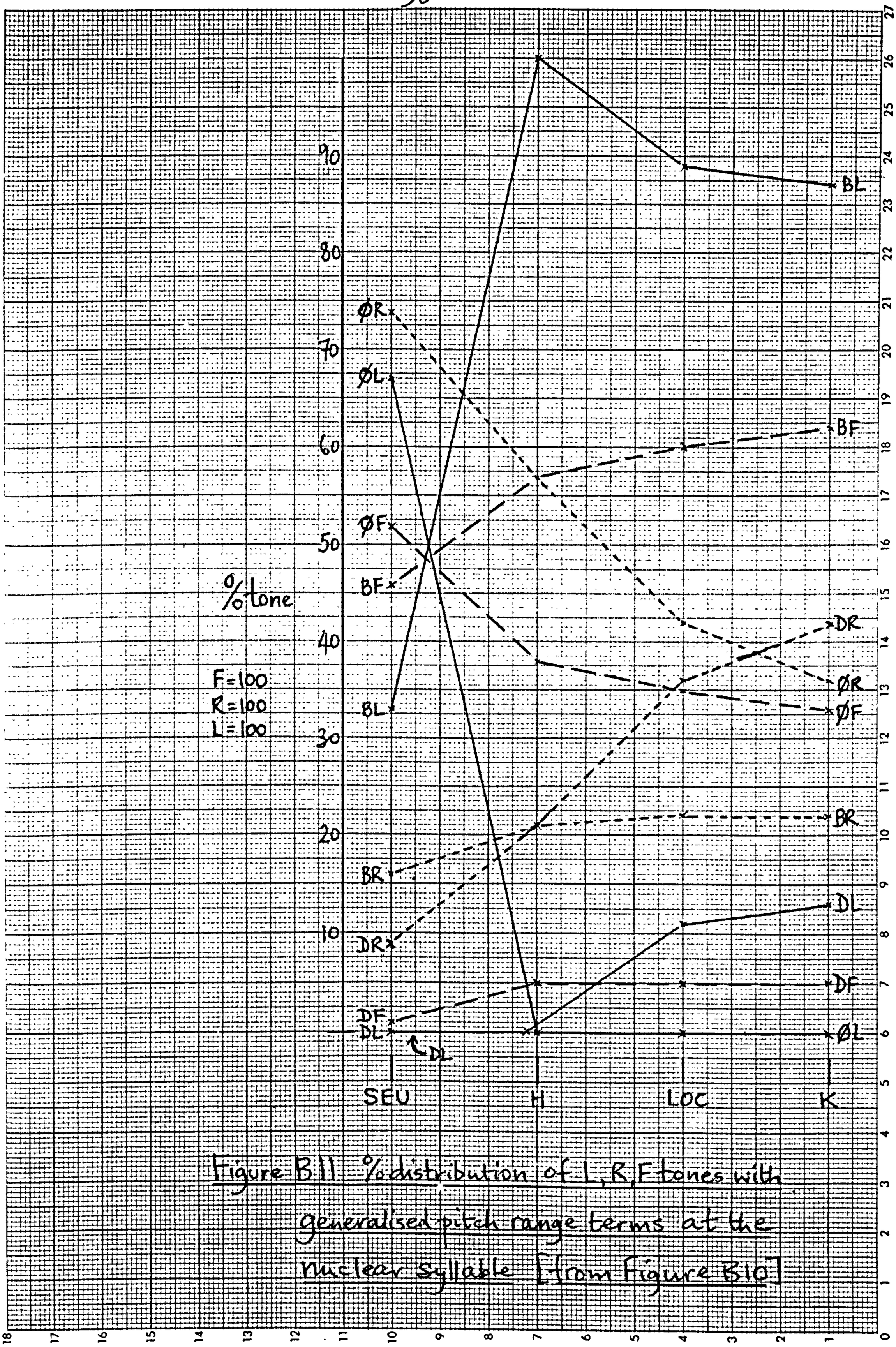


Figure B11 % distribution of L, R, F tones with generalised pitch range terms at the nuclear syllable [from figure B10]

Criteria	Pellowe 1970d	McNeany 1971
(1) Relative %s of F:R, F:L, R:L	√	(√)
(2) Overall %s of all tones	√	combines RF & RpF (√)
(3) Relative %s of F & R on n	√	no data
(4) Relative %s of R on adv.+ pron. vs n	√	no data
(5) Relative %s of FR & RF on n & N	√	no data
(6) % distn. of all nuclear n.s on all tones	√	no data
(7) Rel. % nucl. advs. F vs those R/FR	√	no data
(8) Rel. % nucl. padj. F vs those R	√	no data
(9) % F + Booster	√	√
(10) % R + Ø (pitch range)	√	x
(11) % L + Ø	√	(√)
(12) % L + Booster	√	(√)
(13) % F + Drop	x	√
(14) % R + wide	no data	√(?)
(15) % statements with F	no data	√
(16) % statements with generalised Fs	no data	√
(17) % questions with F	no data	√
(18) % questions with generalised Fs	no data	√
(19) % interjections with L	no data	√
(20) % interjecs. with non-simple tones	no data	√
(21) % wh- questions with R	no data	√
(22) % yes-no questions with R	no data	√

Legend

√ = proposal / agreement

(√) = nothing in the data to show a basis for non-agreement

x = two data sets give opposing patterns (non-agreement)

? = data do not seem to support proposal

Figure B 12 Summary of prosodic criteria proposed for a classification of speech varieties and derived from two complementary, contrastive analyses.

Figure B 13: Details of speakers (Gp'i)

Age	17-20	21-30	31-40	41-50	51-60	61-70	Total
Men	----	N(III/II) We (IV) Mc(III/II)	He(V) Cr(IV) Ch(III) An(IV)	Gr(IV)	O(IV)	Ga(V) Wi(IV)	11
Women	D(V)	----	S(IV) Wa(V) F(IV)	T(V) BW(V) Ha(V)	Cl(V) Ar(V)	----	9
Total	1	3	7	4	3	2	20

Figure B14
Gross % distribution of tones (Gp I)

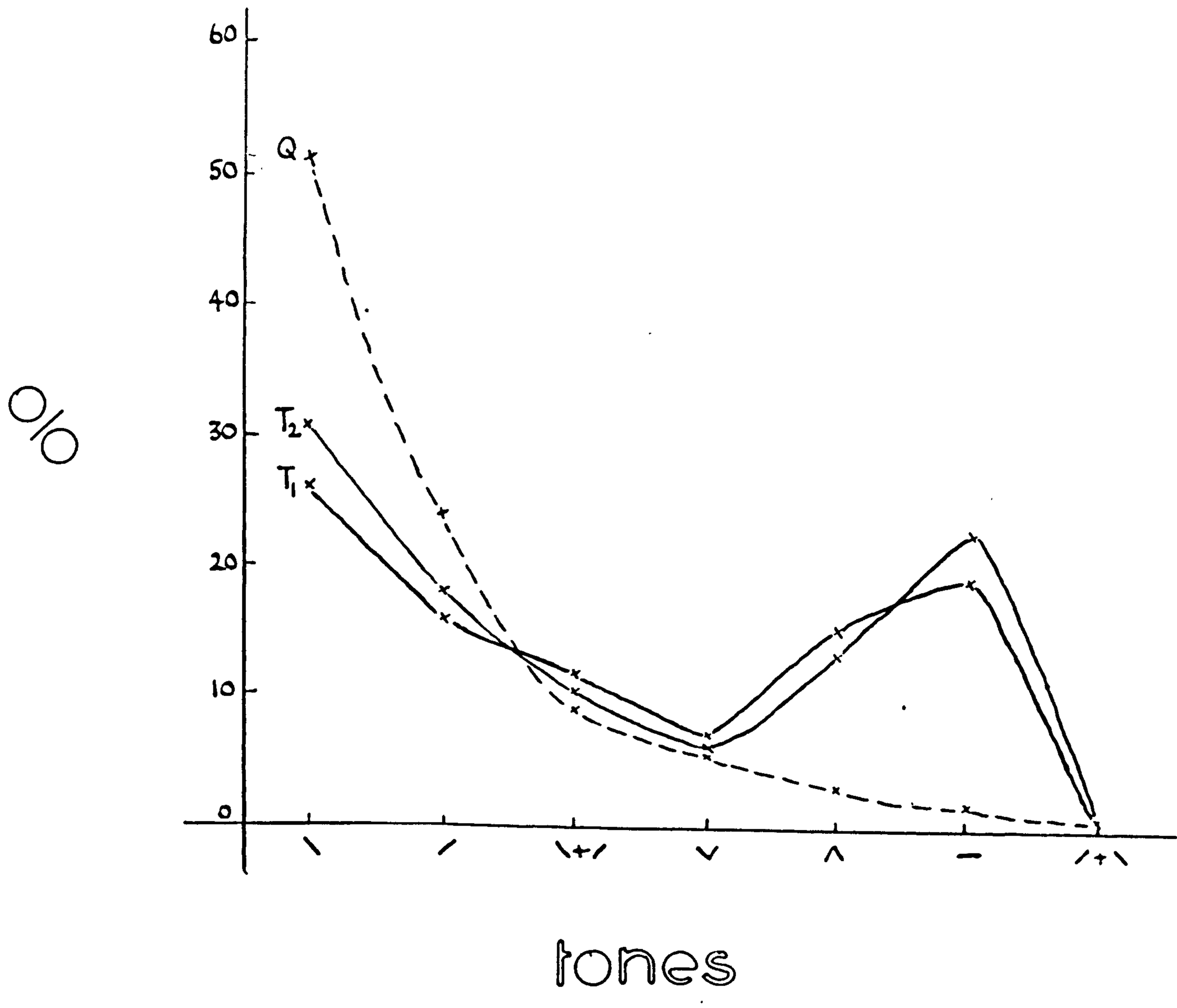
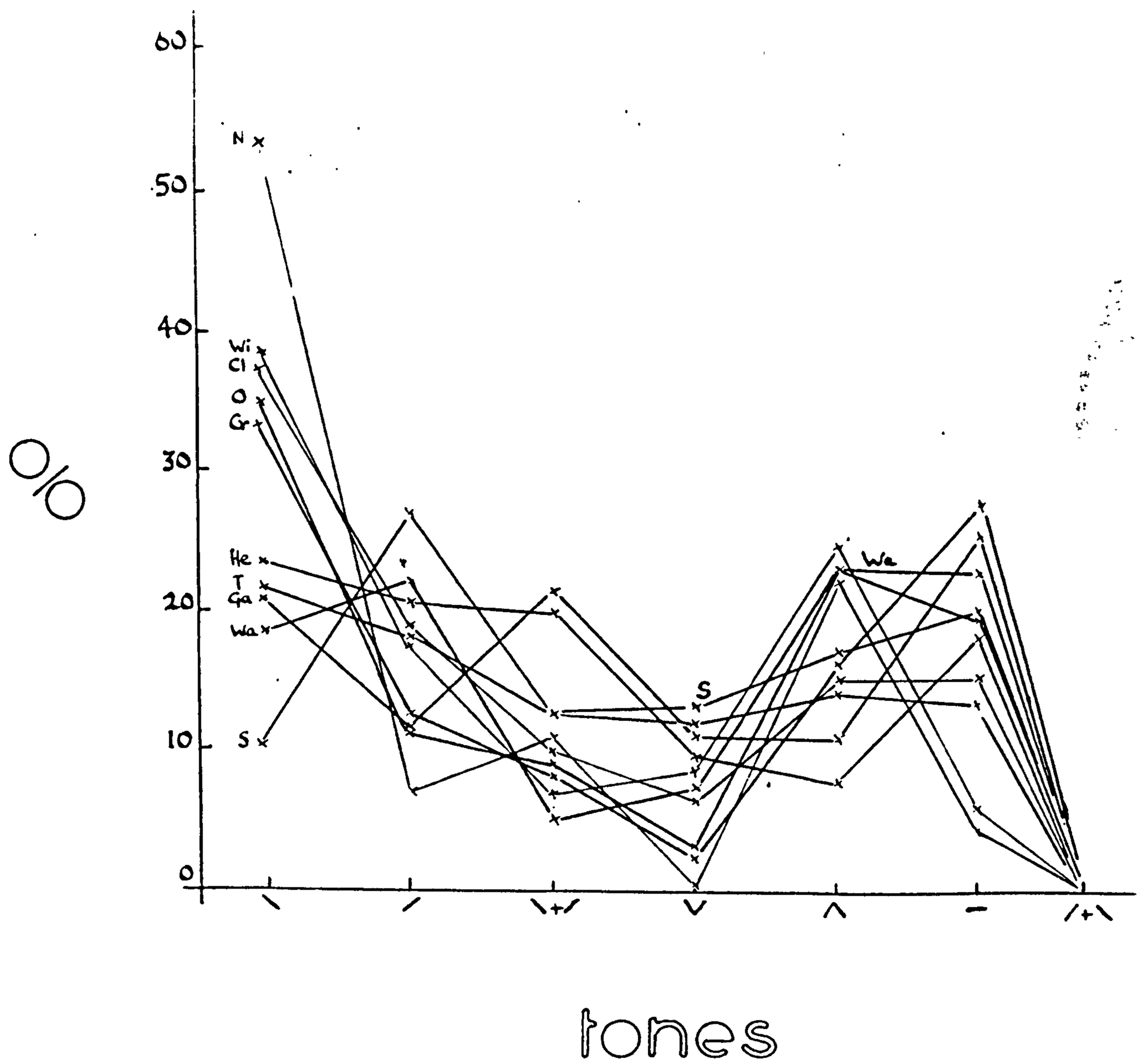


Figure B15

% distribution of tones for ten individuals (= T, of B14)



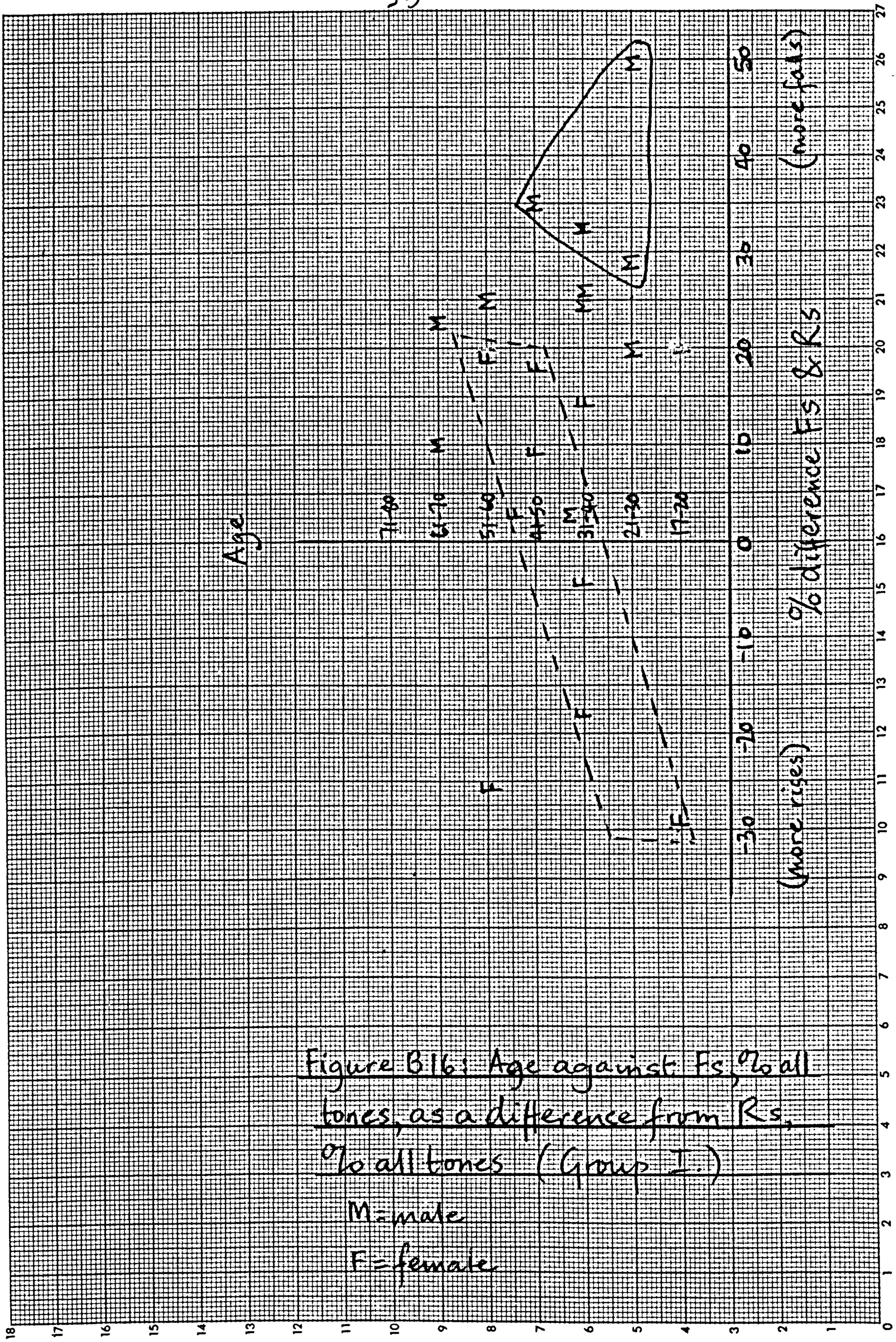


Figure B16: Age against Fs, % all tones, as a difference from Rs, % all tones (Group I.)

M = male

F = female

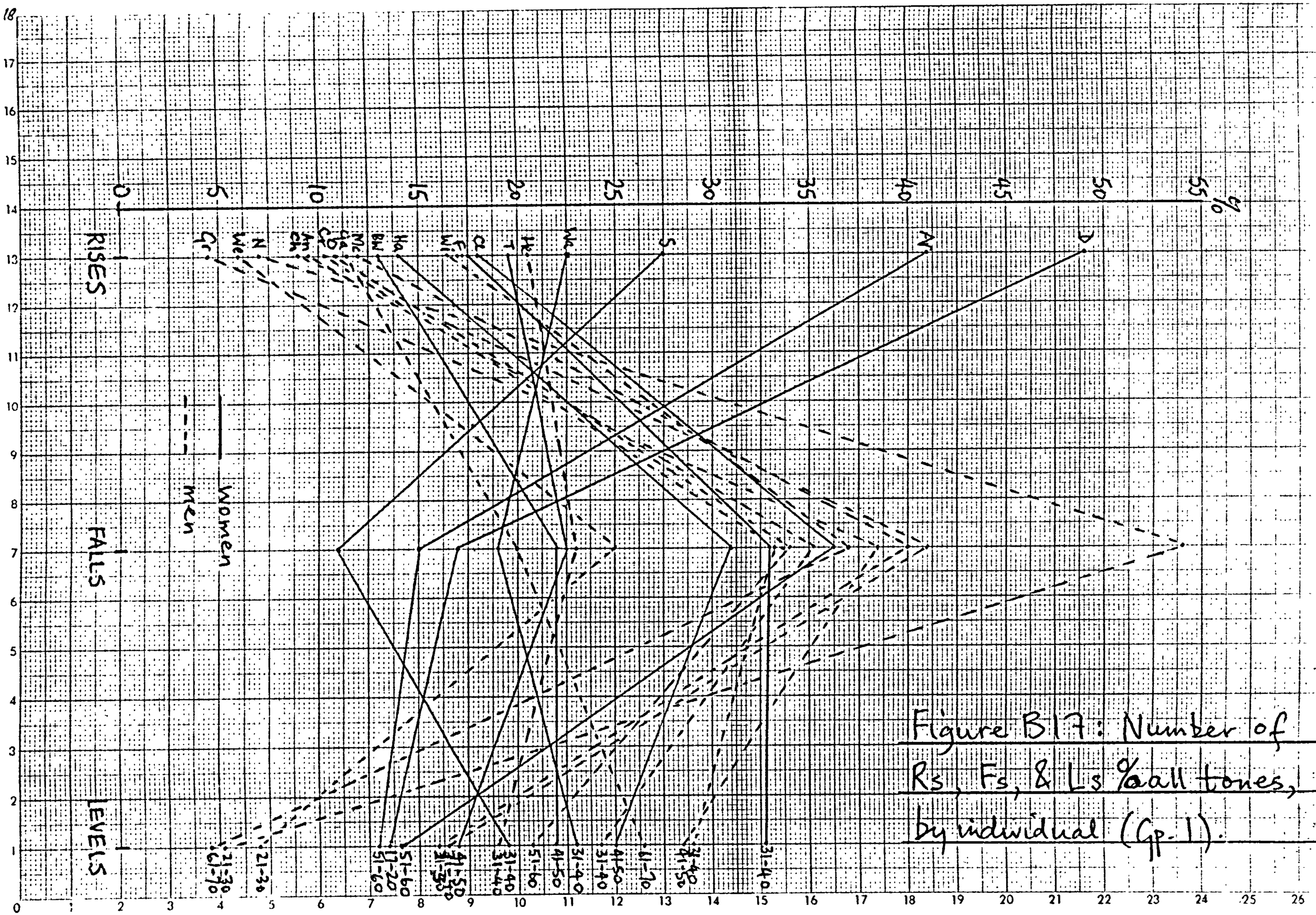


Figure B17: Number of Rs, Fs, & Ls % all tones, by individual (Gp. 1).

Figure B 18: Tone frequency patterns for women and for men (from Fig. B 17).

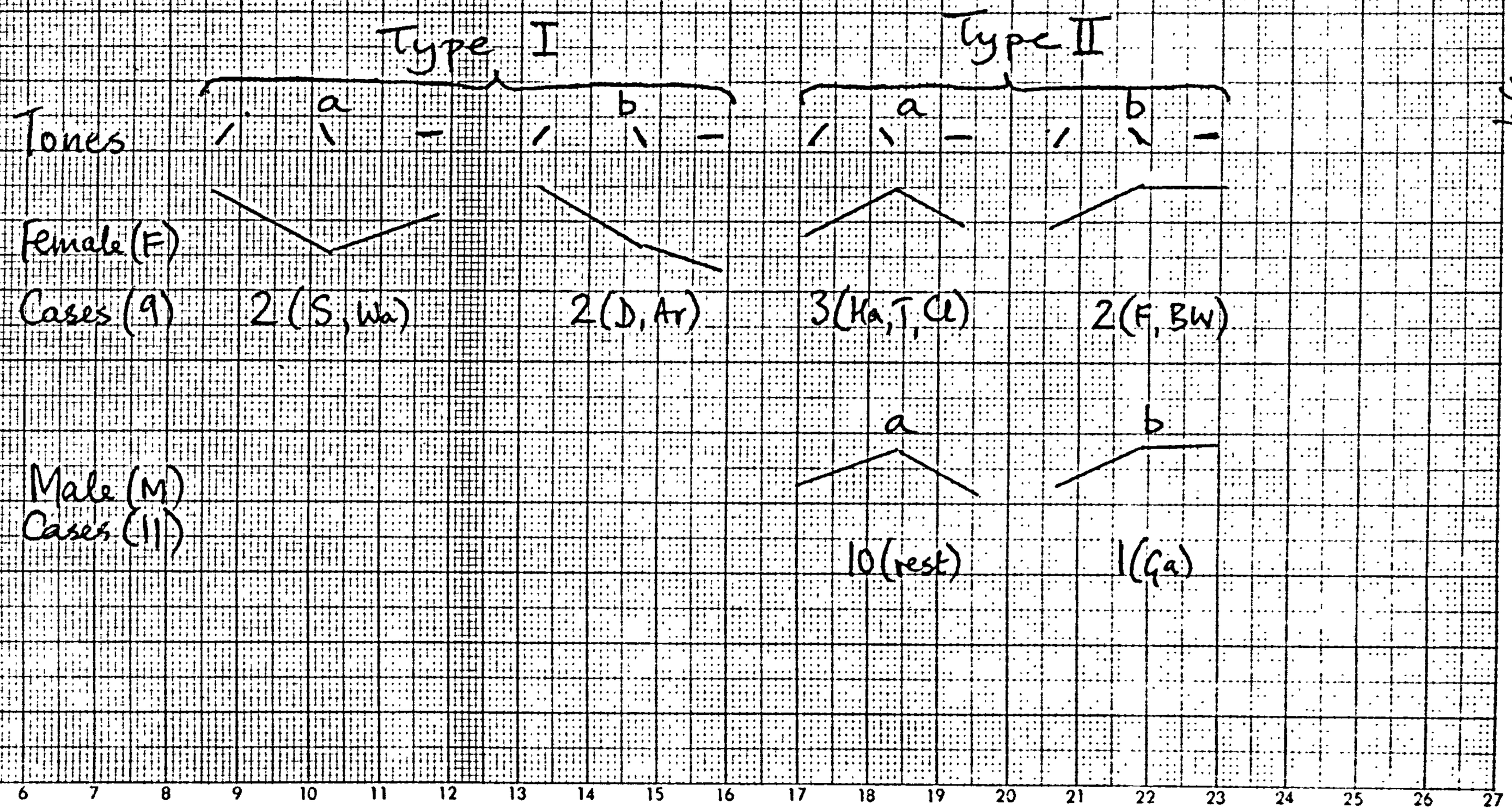
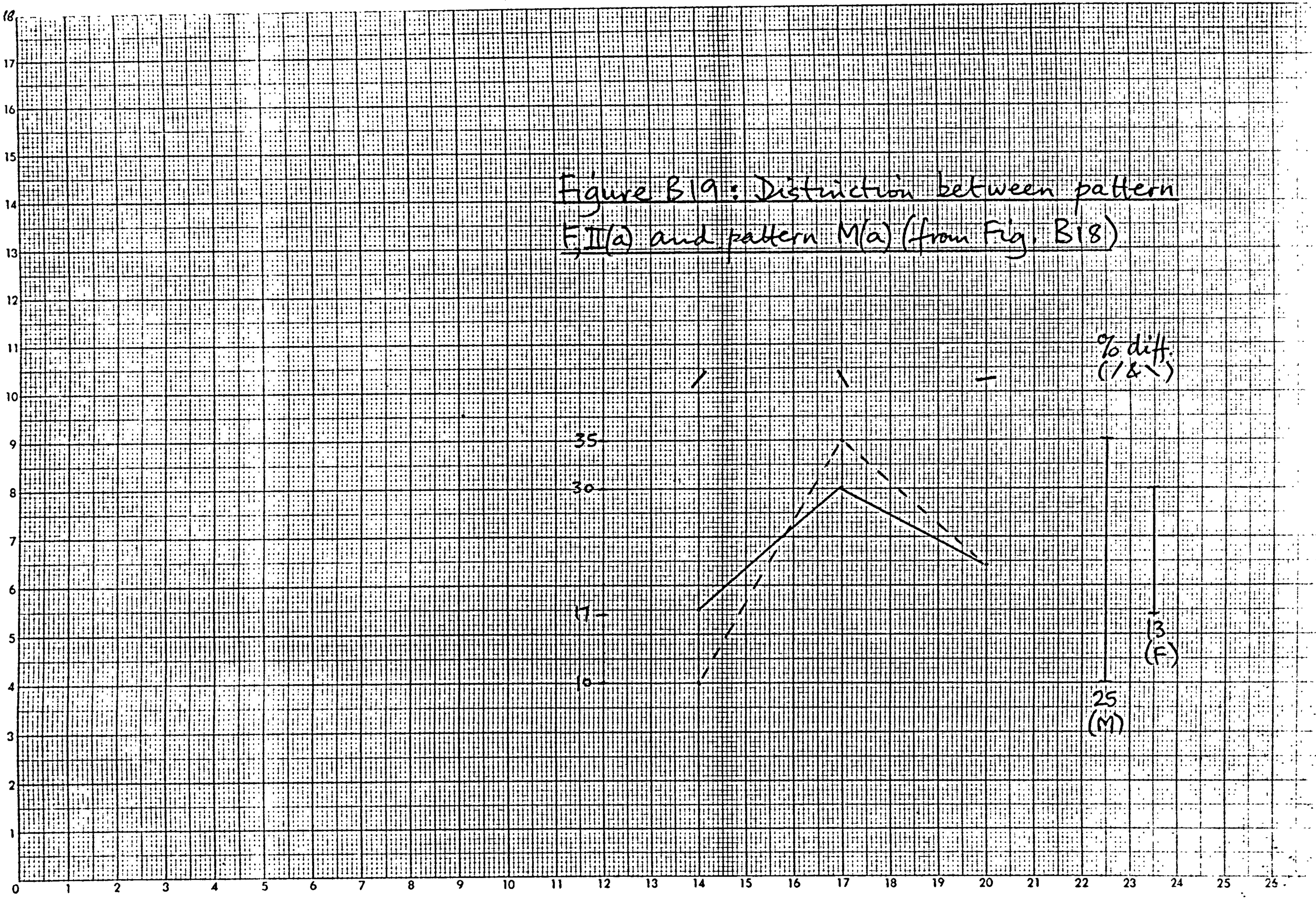


Figure B19: Distinction between pattern F,II(a) and pattern M(a) (from Fig. B18)



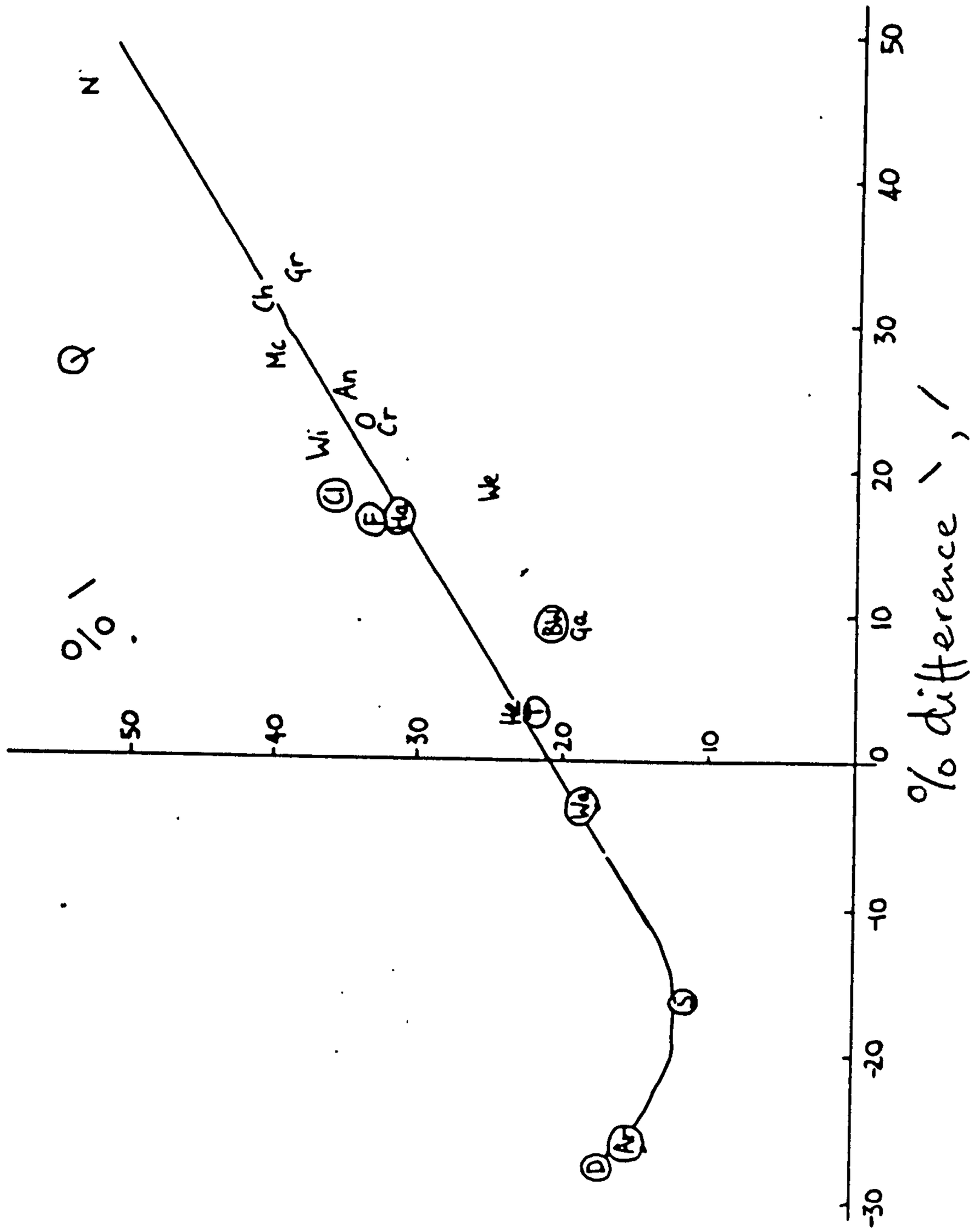


Fig. B20a % Fs against % differences between Fs & Rs (Group I)

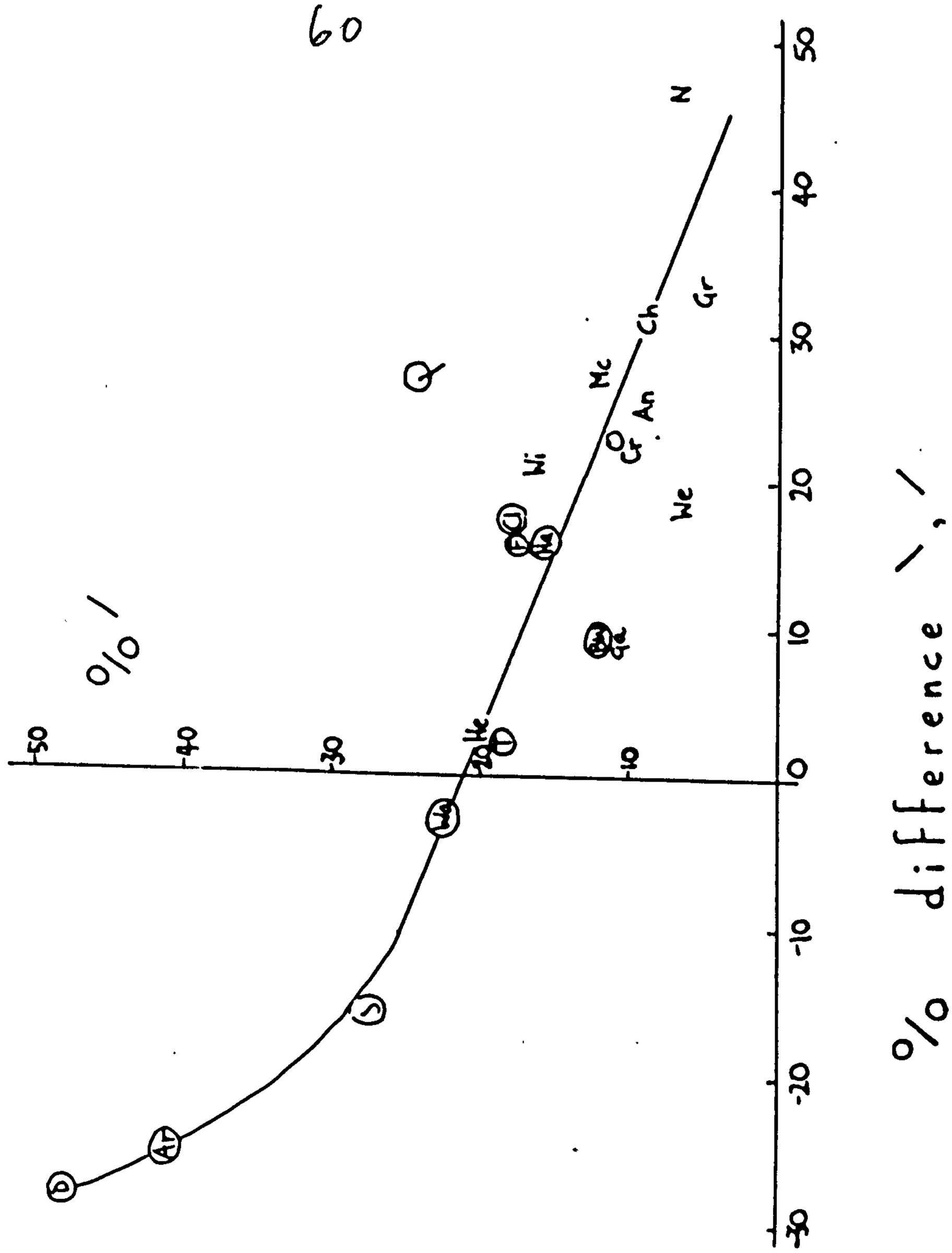
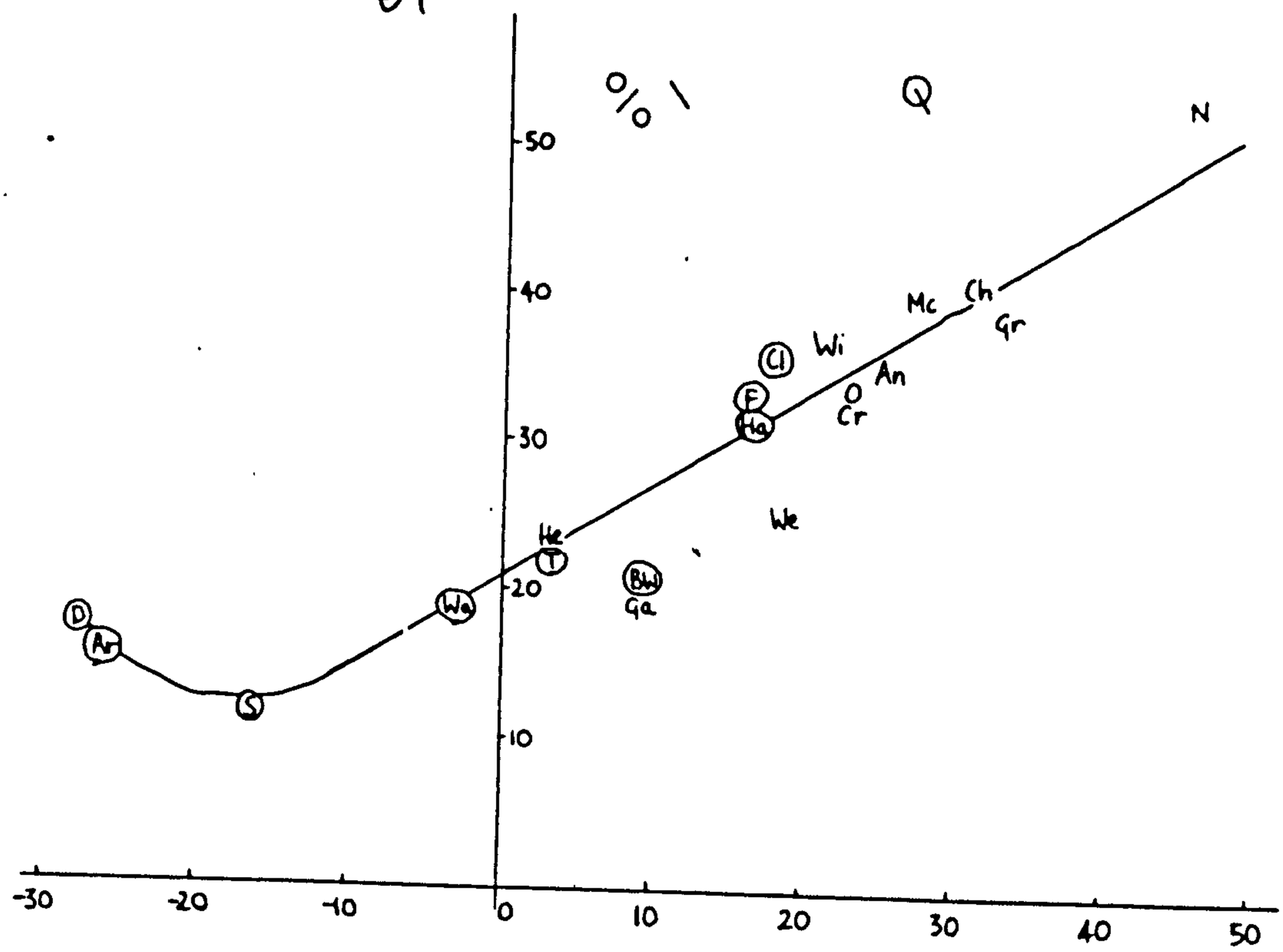


Fig. B20b % Rs against % difference between Fs & Rs (Group I).



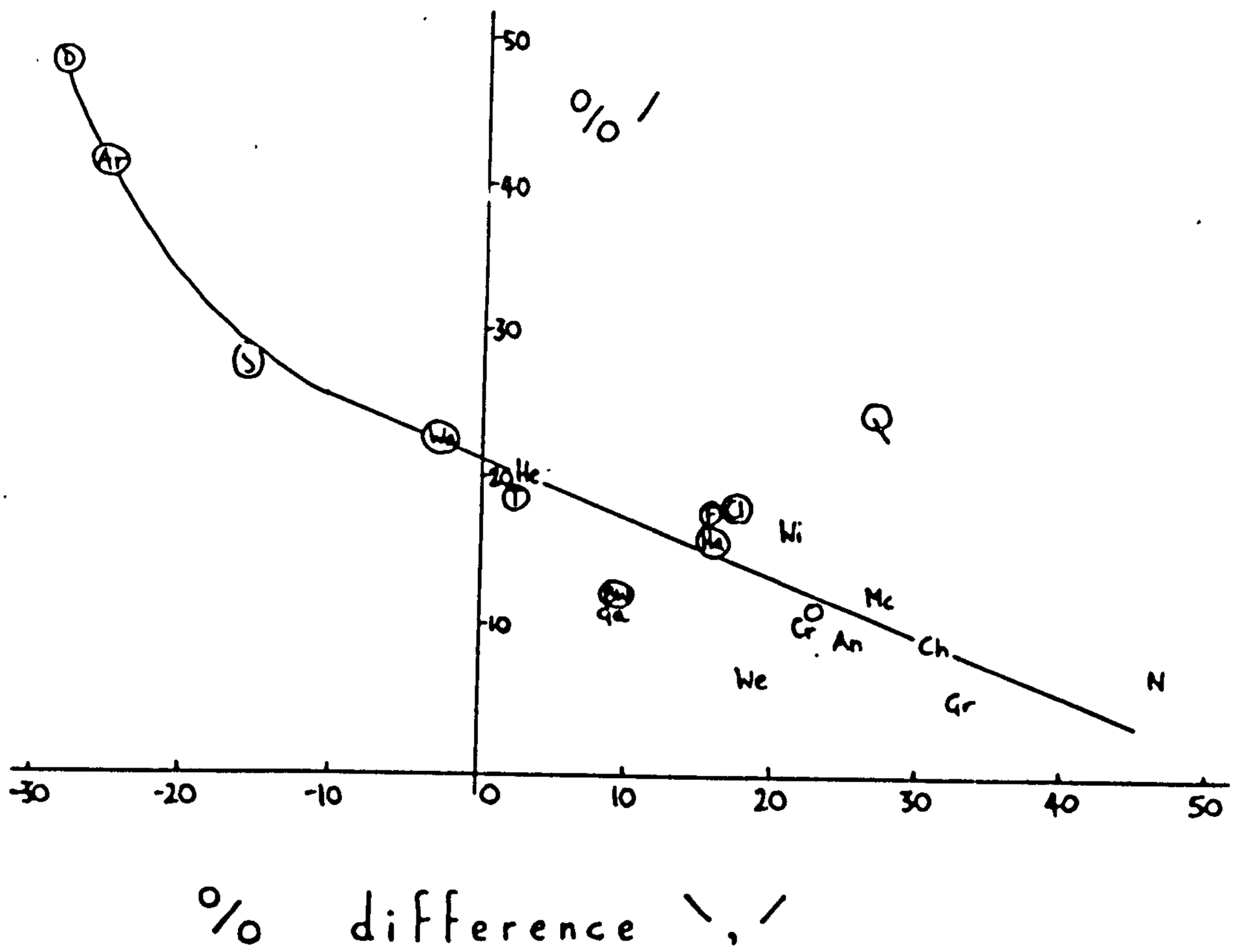


Fig. B20c: Figs. B20a & B20b printed together for comparison.

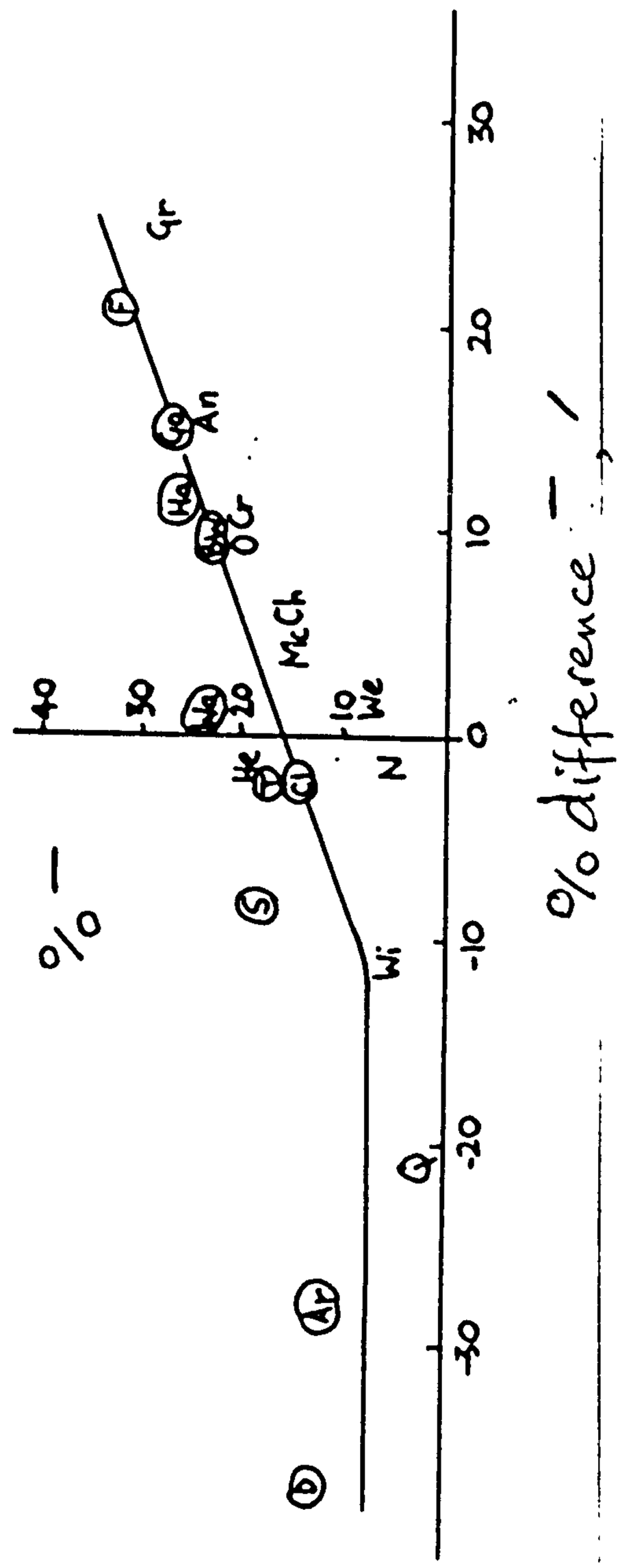


Fig. B21 % Ls against % difference between Ls & Rs (Group I).

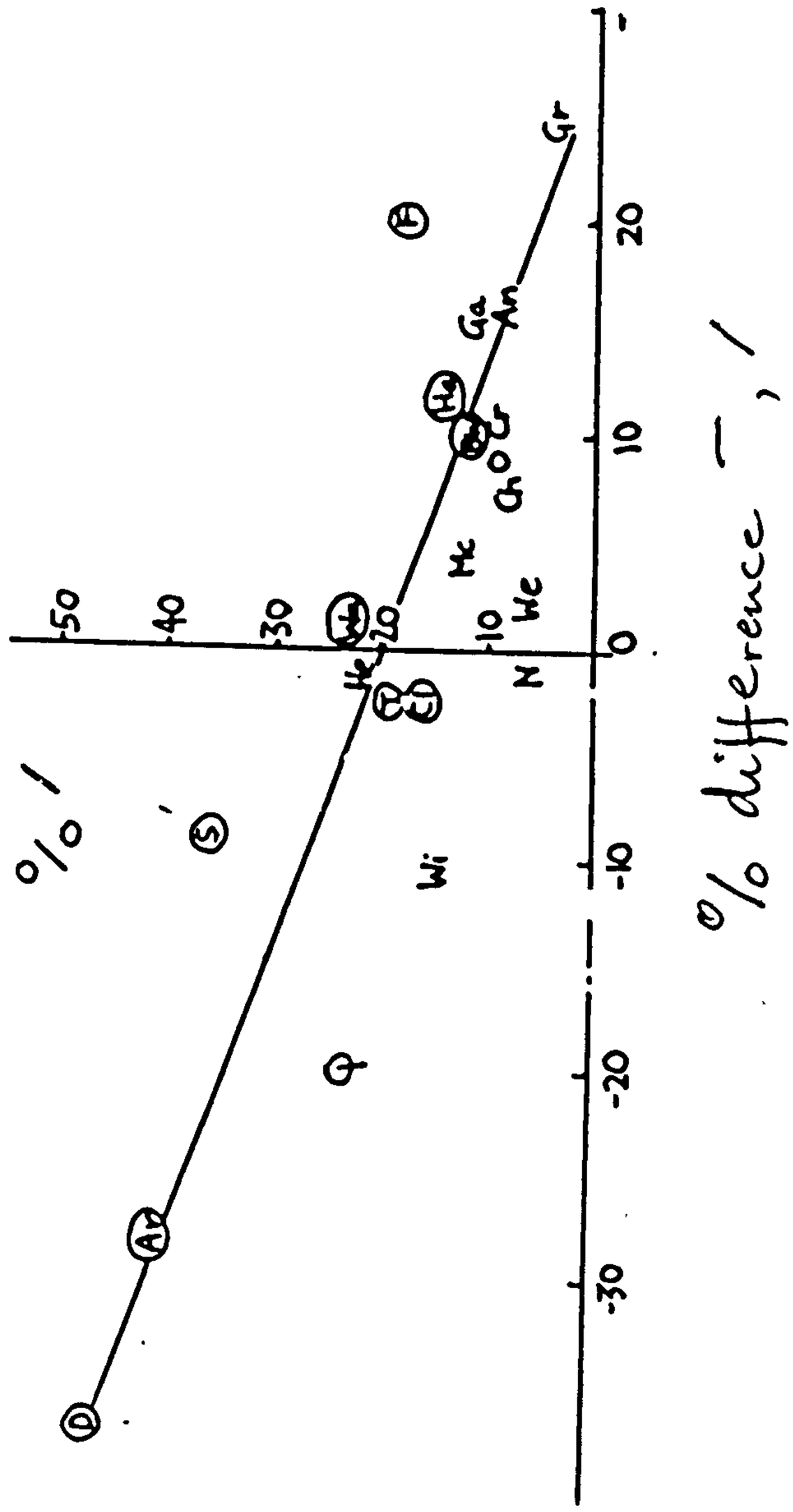


Fig. B22 % Rs against % difference between Ls & Rs (Group I).

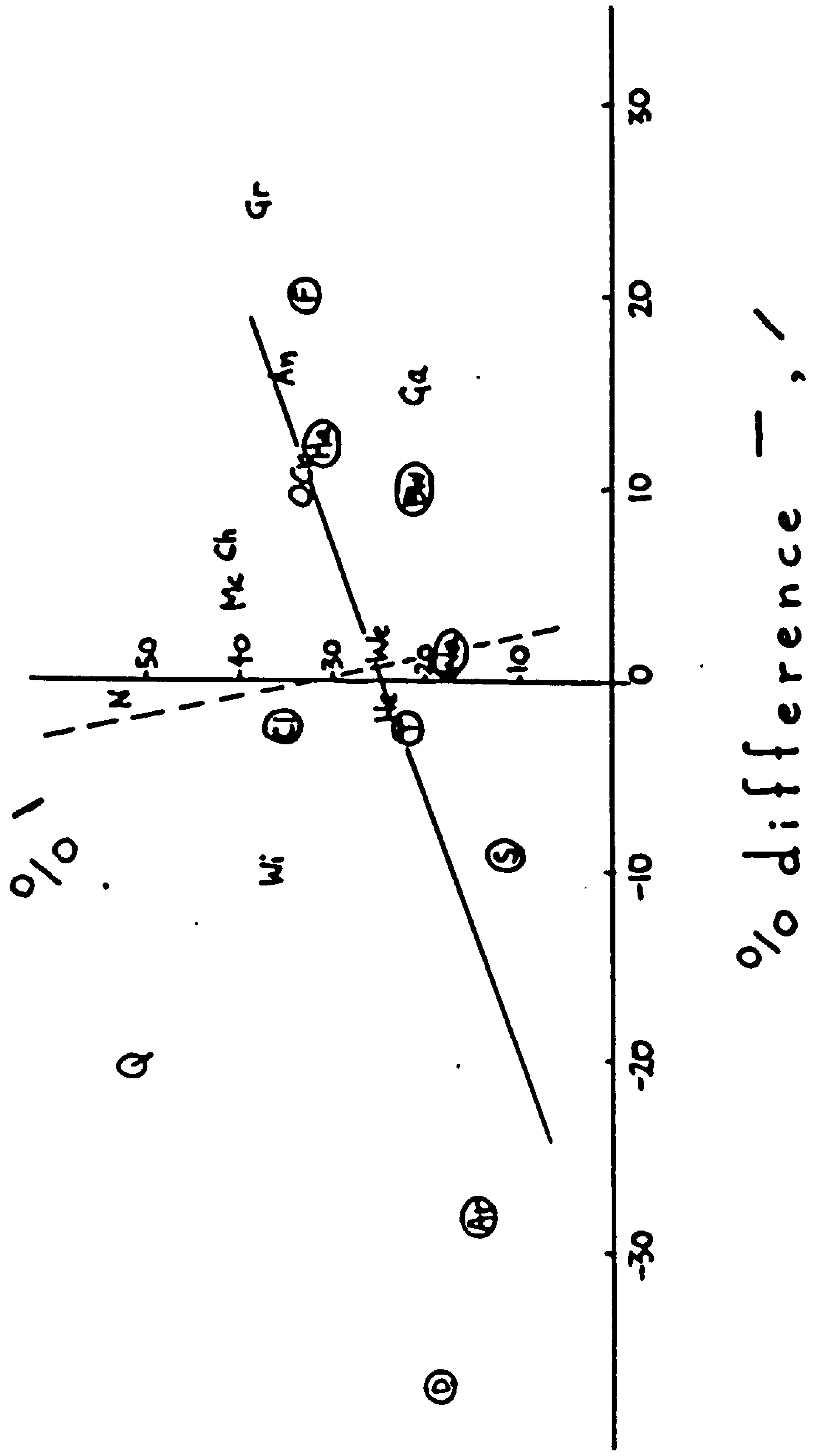


Fig. B23 % Es against % difference between Ls & Rs (Gp.T.)

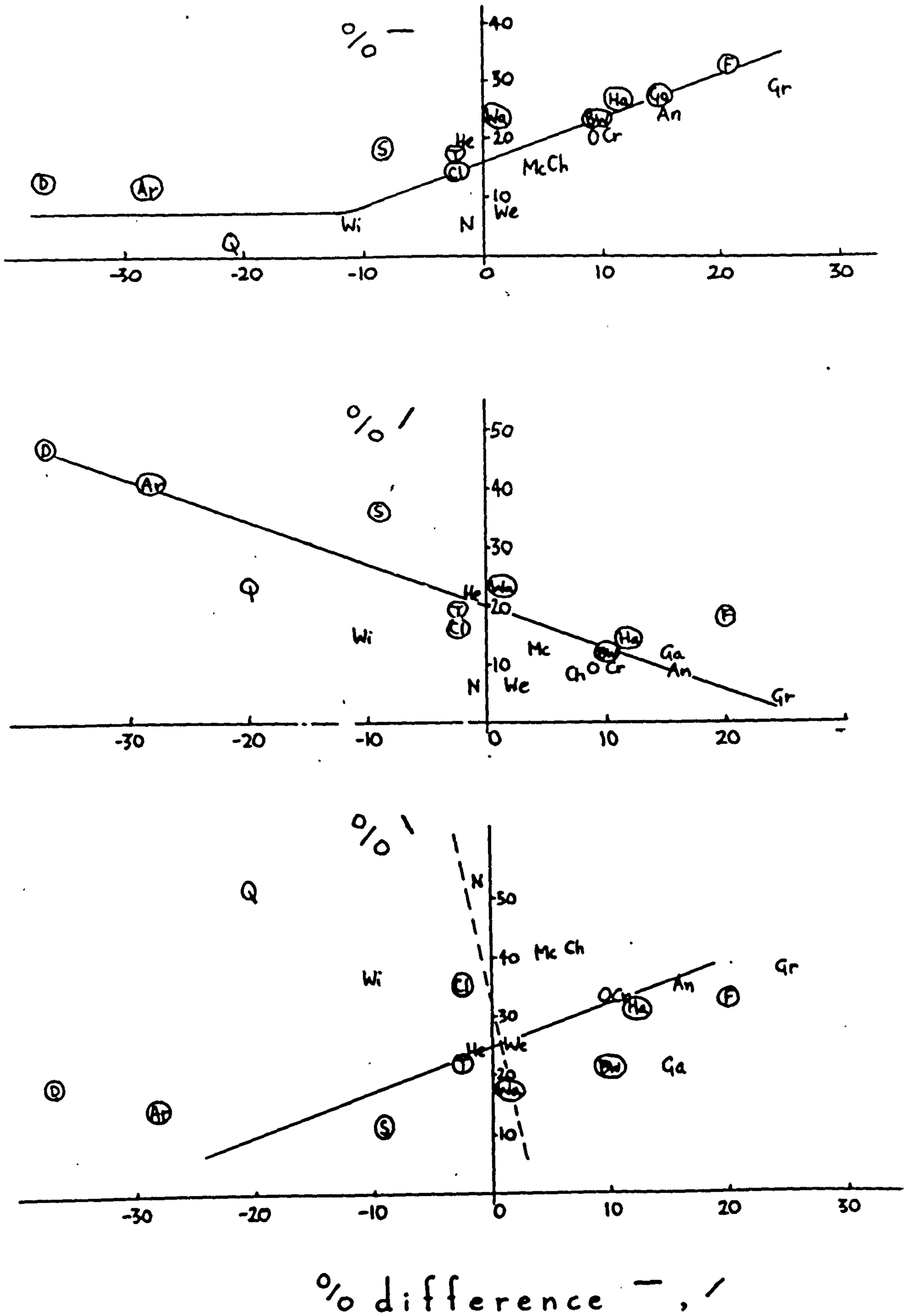


Fig. B23A Figures B21, B22 & B23 printed together for Comparison.

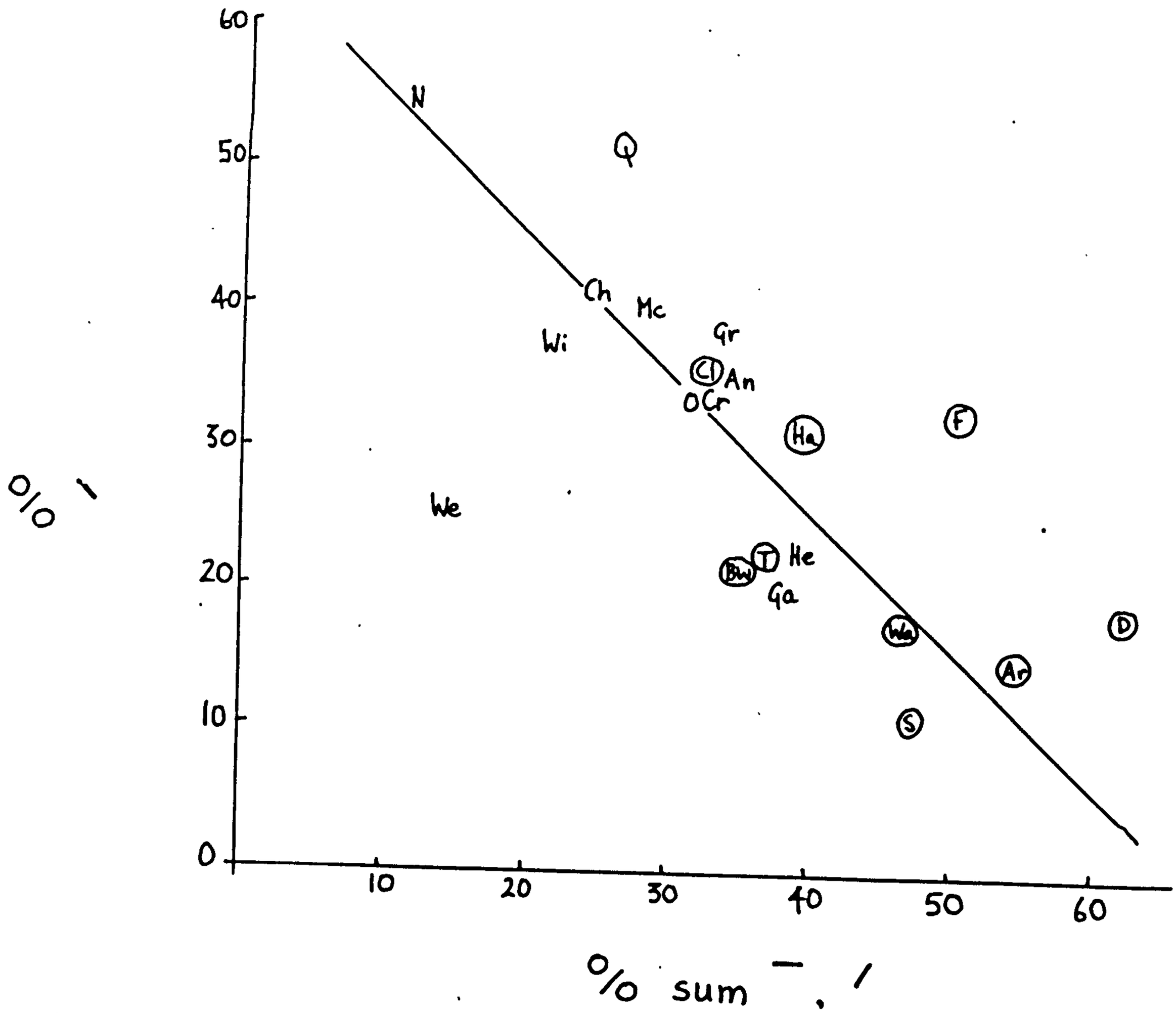


Fig. B24 % Fs against % sum of Ls & Rs (Group I.)

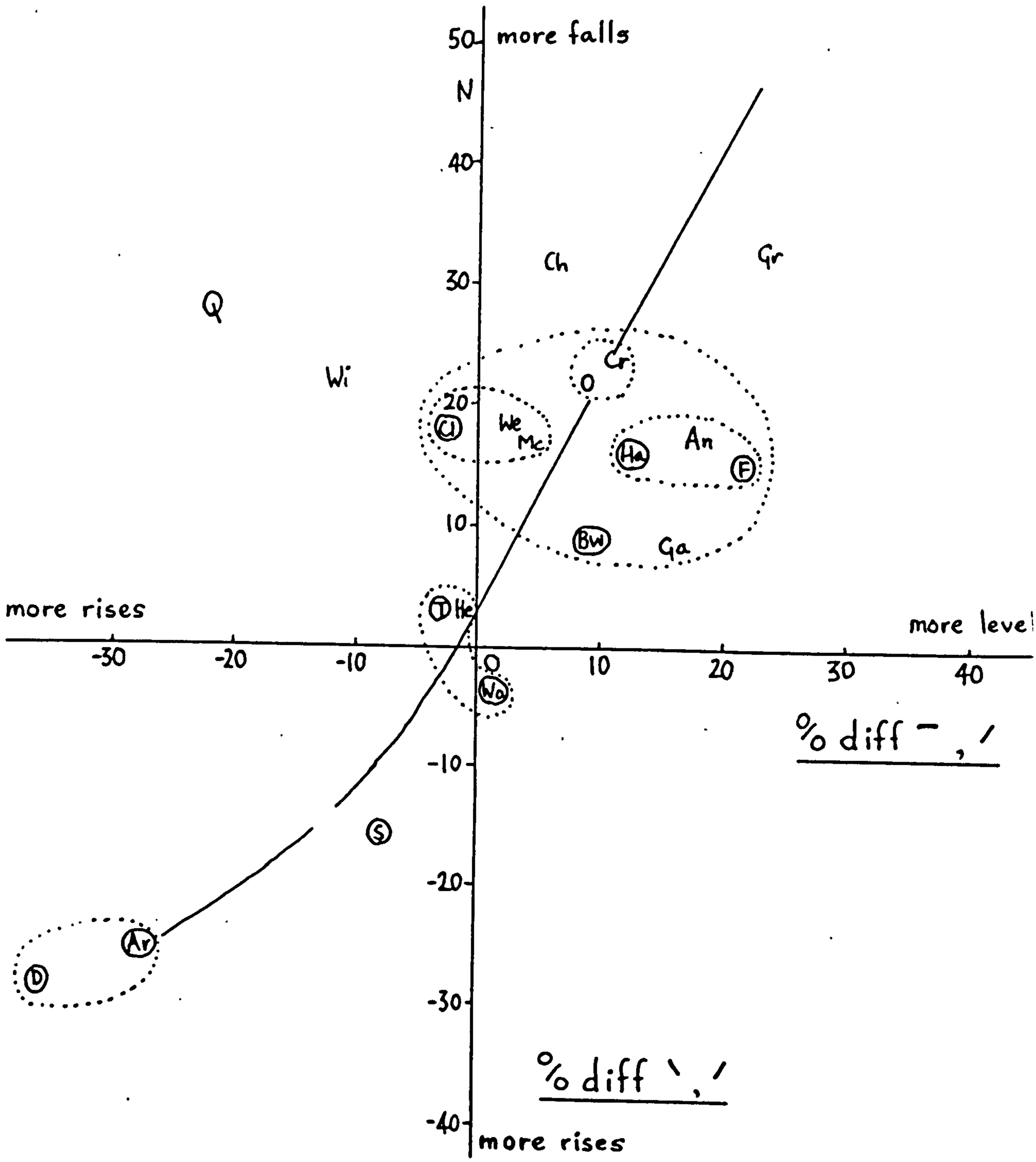


Fig. B25 % difference between \, / against % difference between −, / (Group I.)

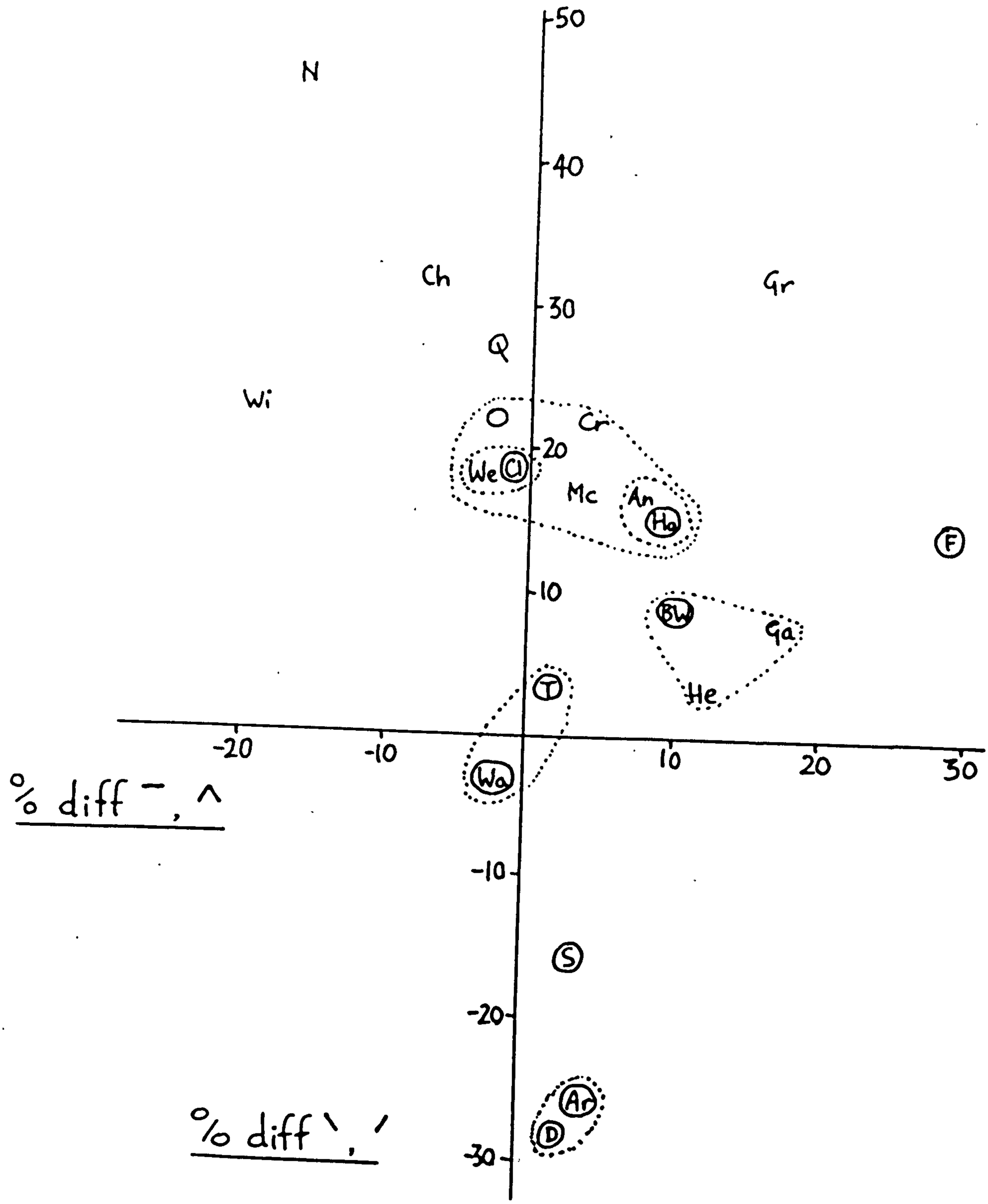
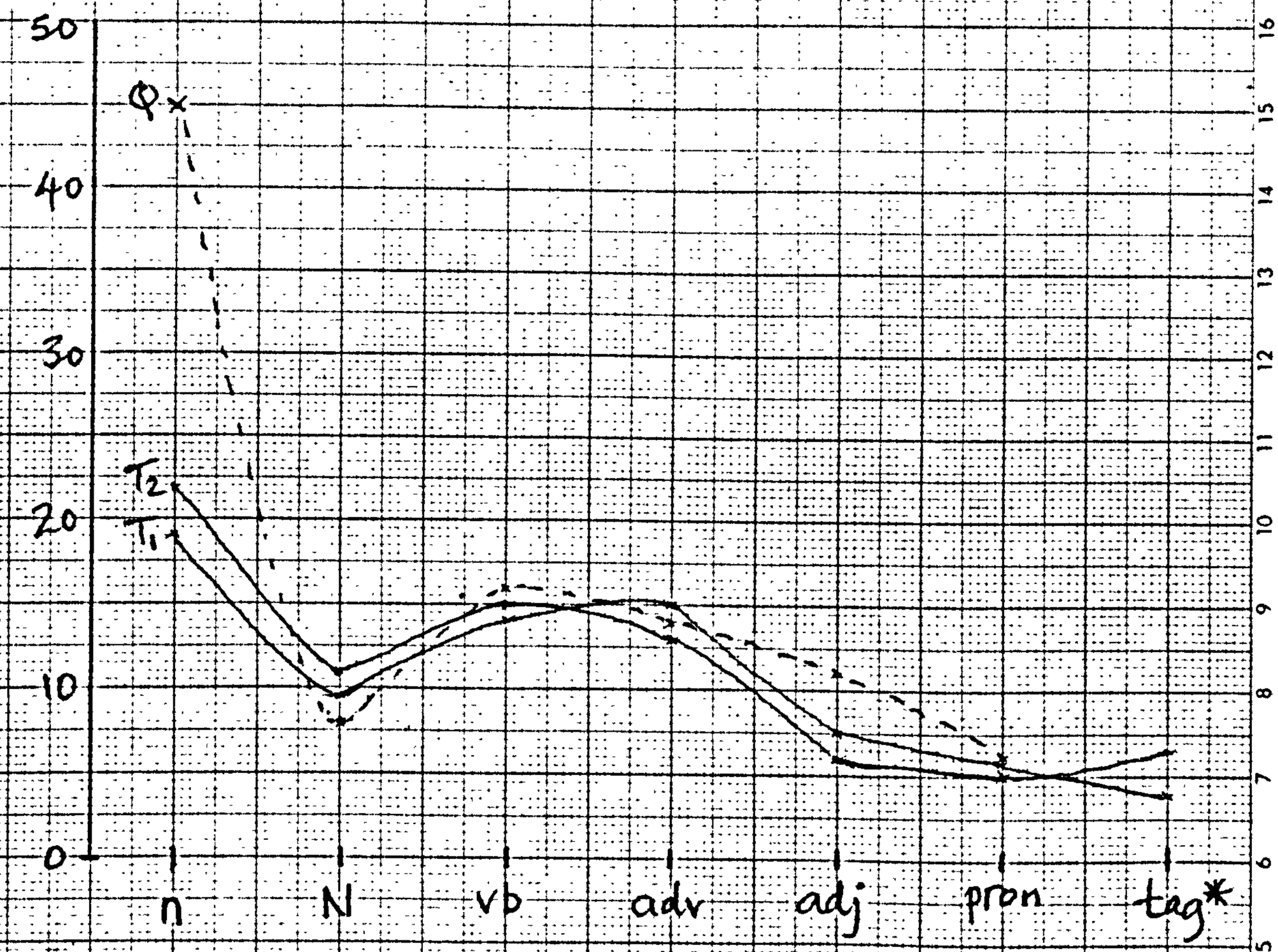


Fig. B26 % difference between \, / against % difference between −, ^ Group I.

Figure B27: Gross % distribution of all nuclei by form class (Q, T_1, T_2)



Q - - - - (Quirk et al. 1964)

T_1 ——— } Tyneside subsamples
T_2 ———

* [Quirk et al. no data]

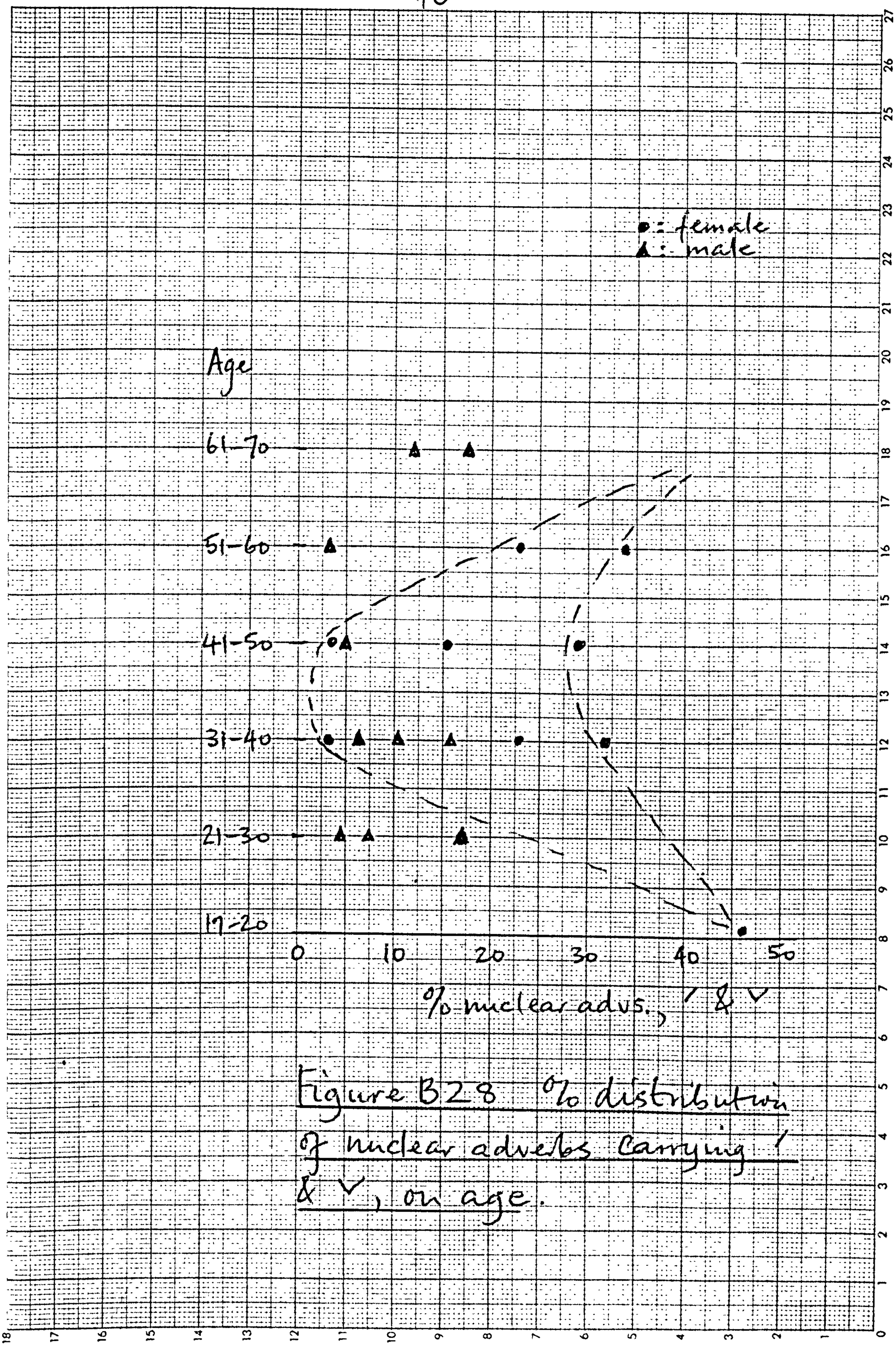


Figure B28 % distribution of nuclear adverbs carrying ' & ˇ, on age.

Informant		He	Ga	Wi	S	Wa	N	O	Cl	T	Cr	BW	Ch	Gr	D	We	Mc	F	Ar	Ha	An
	n	12.9	41.8	25.7	12.5	27.9	29.3	19.6	28.6	32.5	23.8	35.5	38.5	31.9	25.6	26.8	25.0	26.6	26.6	35.5	27.3
Z\	N	6.4	14.5	12.1	8.3	9.3	15.8	33.0	8.5	4.6	9.5	3.2	12.3	13.8	2.5	25.0	13.0	14.1	10	8.1	11.7
	adv	3.2	16.3	19.7	8.3	9.3	17.1	4.5	14.2	23.2	15.5	6.4	23.1	9.7	17.9	23.2	14.1	15.6	10	12.9	9.1
	n	7.4	10	6.8	19.6	9.8	0	0	20.6	2.7	15.4	22.2	33.3	11.1	22.7	7.1	32.1	9.1	29.3	10.7	4.8
Z/	N	7.4	3.3	17.2	9.8	11.7	0	38.0	17.6	0	11.5	16.6	0	11.1	5.9	35.7	3.6	18.2	19.5	10.7	9.5
	adv	9.2	13.3	3.4	6.5	3.9	20	0	17.6	8.1	7.7	16.6	13.3	0	14.8	14.3	3.6	3.0	8.5	3.6	4.7
	n	10	15.2	0	9.1	17	0	10	18.5	18.7	19.2	23.3	20	20.4	7.1	16.8	2.8	15.9	34.6	12	15.1
Z—	N	0	1.4	12.5	4.5	7.5	14.3	15	7.4	3.1	16.4	16.6	8.3	0	10.7	14.1	8.6	14.3	3.8	8.0	3.7
	adv	6.0	19.4	12.5	9.1	15.1	28.6	25	7.4	21.8	10.9	0	33.3	5.5	17.8	8.8	8.6	11.1	15.4	8	7.5

Figure B29

Z\, Z/, Z—, carried by n, N, adv, for individuals

Fig. B30: % distribution on n, N, adv, by person.

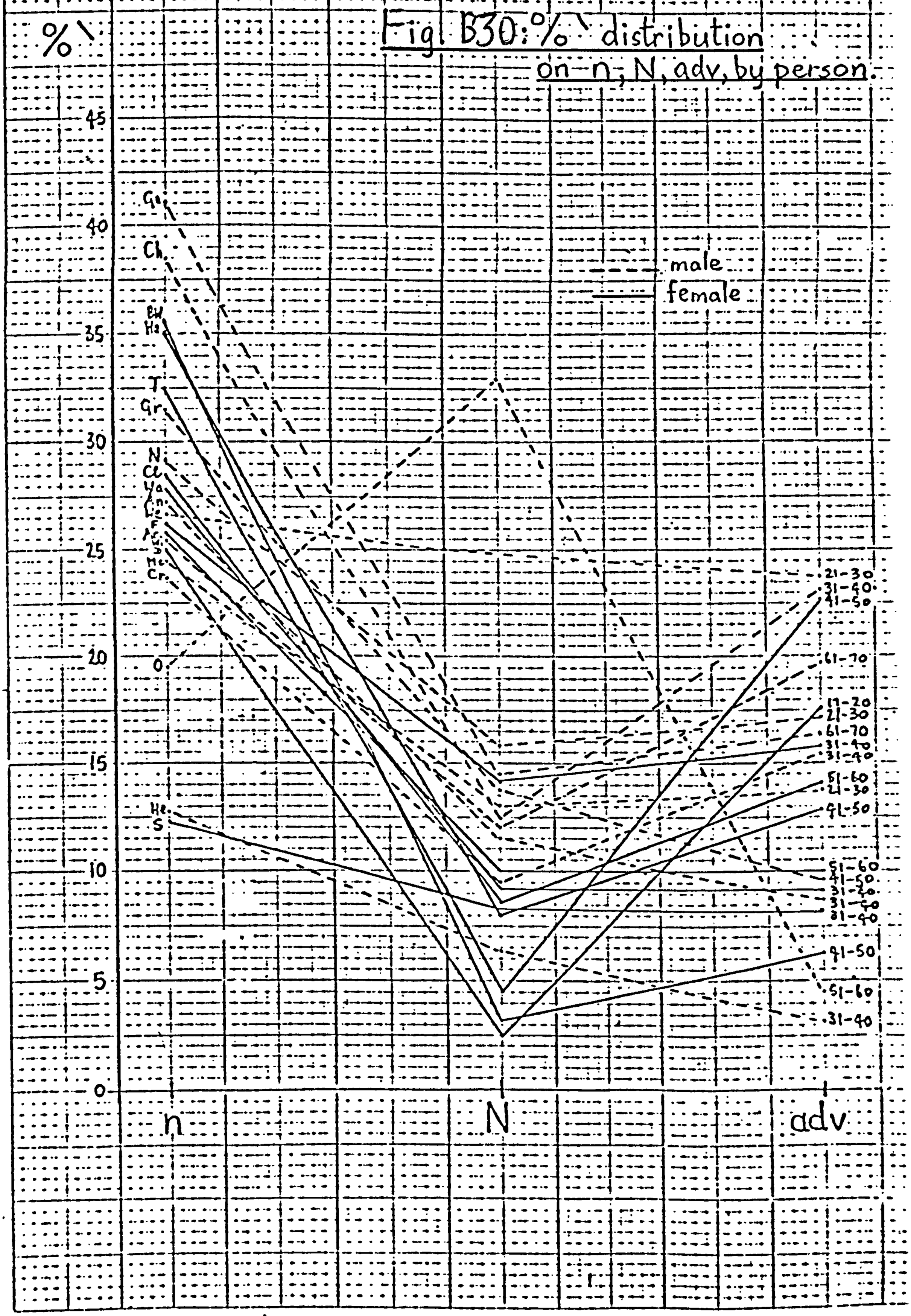


Figure B31: Pattern summary of frequency distributions of \, /, — tones on n, N, adv by informant (col. 1 equivalent to Fig. B30).

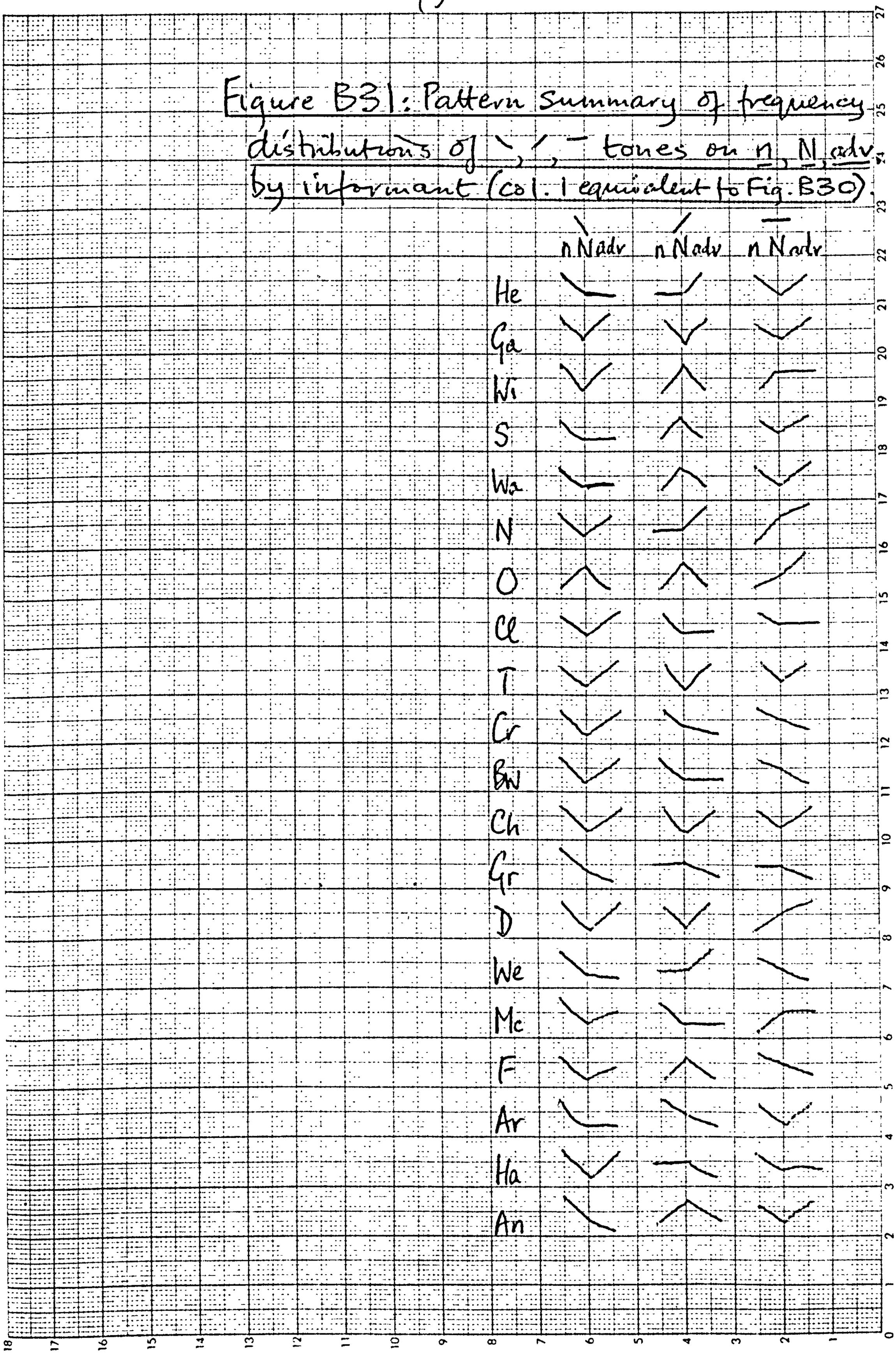
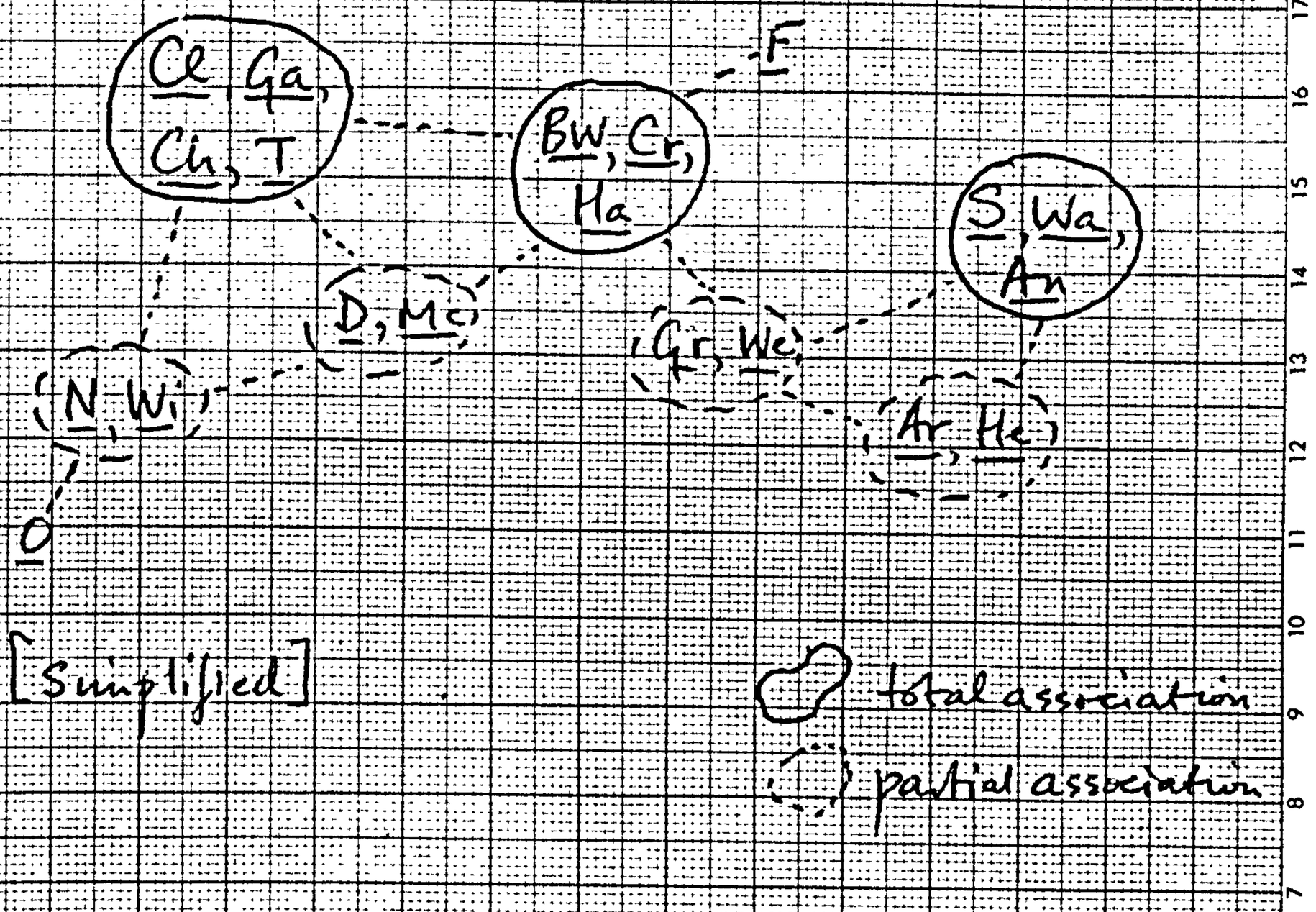


Figure BB2a: Lists of informants by shared frequency patterns of ˋ, ˊ, ¯ on n, N, adv.

Tone:	ˋ			ˊ			¯		
Patterns:	˅	˩	˄	˅	˩	˄	˅	ˊ	ˋ
Shared by:	Ga	He	O	Ga	S	Bw	Ga	O	Bw
	T	Gr		T	Wa	Cr	T	Wi	Cr
	Ch	We		Ch	O	Ha	Ch	N	Ha
	D	An		D	Wi	Mc	Cl	D	Gr
	Wi	S		N	An	Gr	S	Mc	F
	N	Wa		Cl	F	Ar	Wa		We
	Cl	Ar		He			Ar		
	Bw			We			He		
	Ha						An		
	Cr								
	Mc								
	F								
Totals:	12	7	1	8	6	6	9	5	6

Figure B32b: Overall groupings of informants on the basis of their shared patterns in Fig. B32a.



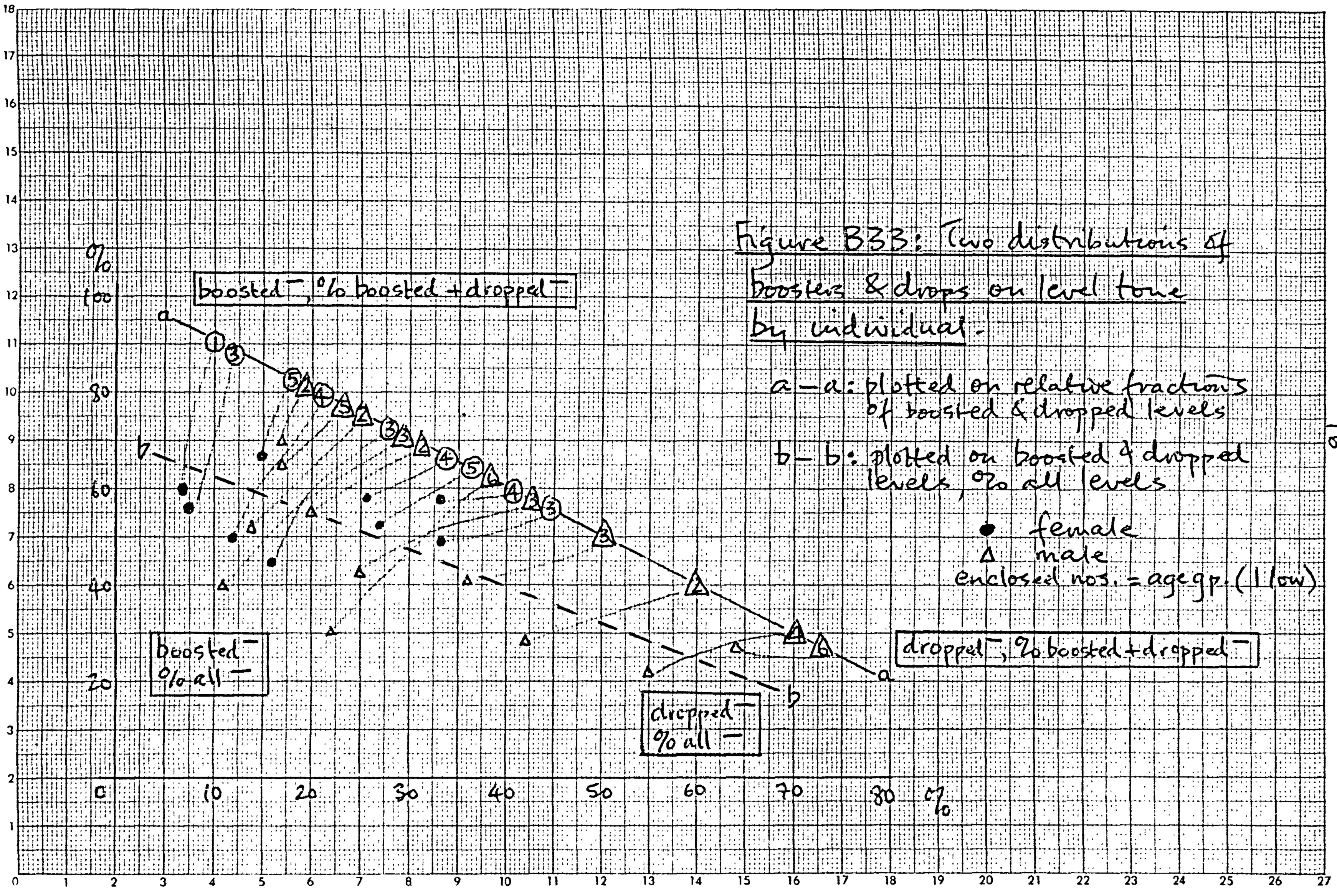


Figure B33: Two distributions of boosters & drops on level tone by individual.

a—a: plotted on relative fractions of boosted & dropped levels

b—b: plotted on boosted & dropped levels, % all levels

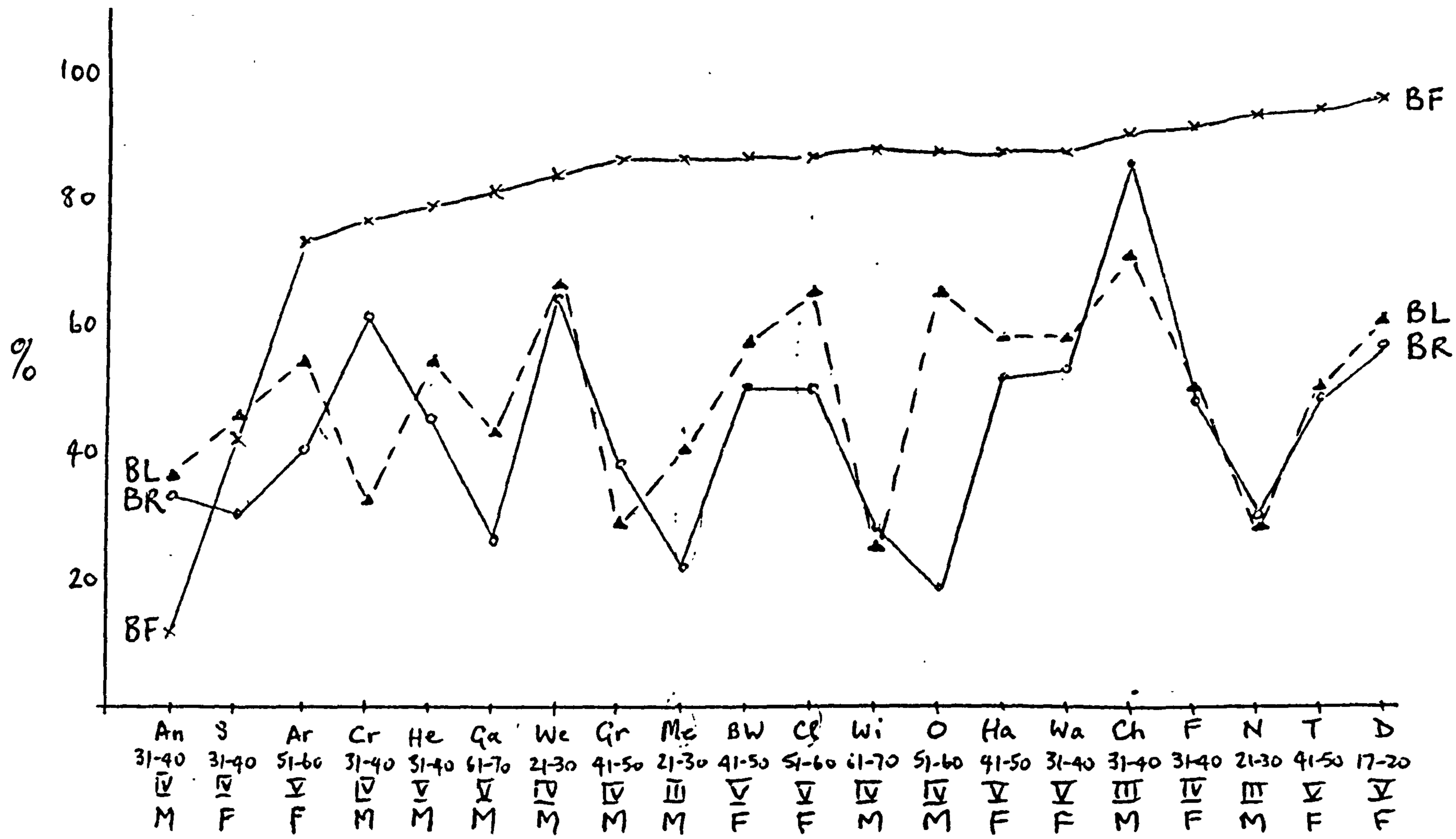


Figure: B 34 Boosted falls, % falls; Boosted levels % levels; Boosted rises % rises, by individual, ranked on boosted falls.

Figure B35: Details of speakers in Gp II

Age	17-20	21-30	31-40	41-50	51-60	61-70+	Total
Men		Cu Fo Ki No	Ni Tea			Br Sa	8
Women	El	Th	Al	Ph Ark Lo Mu Su	Ja	Ca	10
Total	1	5	3	5	1	3	18

Figure B3b: Details of speakers in Gp III

Age	17-20	21-30	31-40	41-50	51-60	61-70+	Total
Men	Wa	Wh Fre Cla	St	Hew Ast	Ma	Rol	9
Women	Mil	Arms Gra Dru Boy	Tu Sco Smi		Hea Rob		10
Total	2	7	4	2	3	1	19

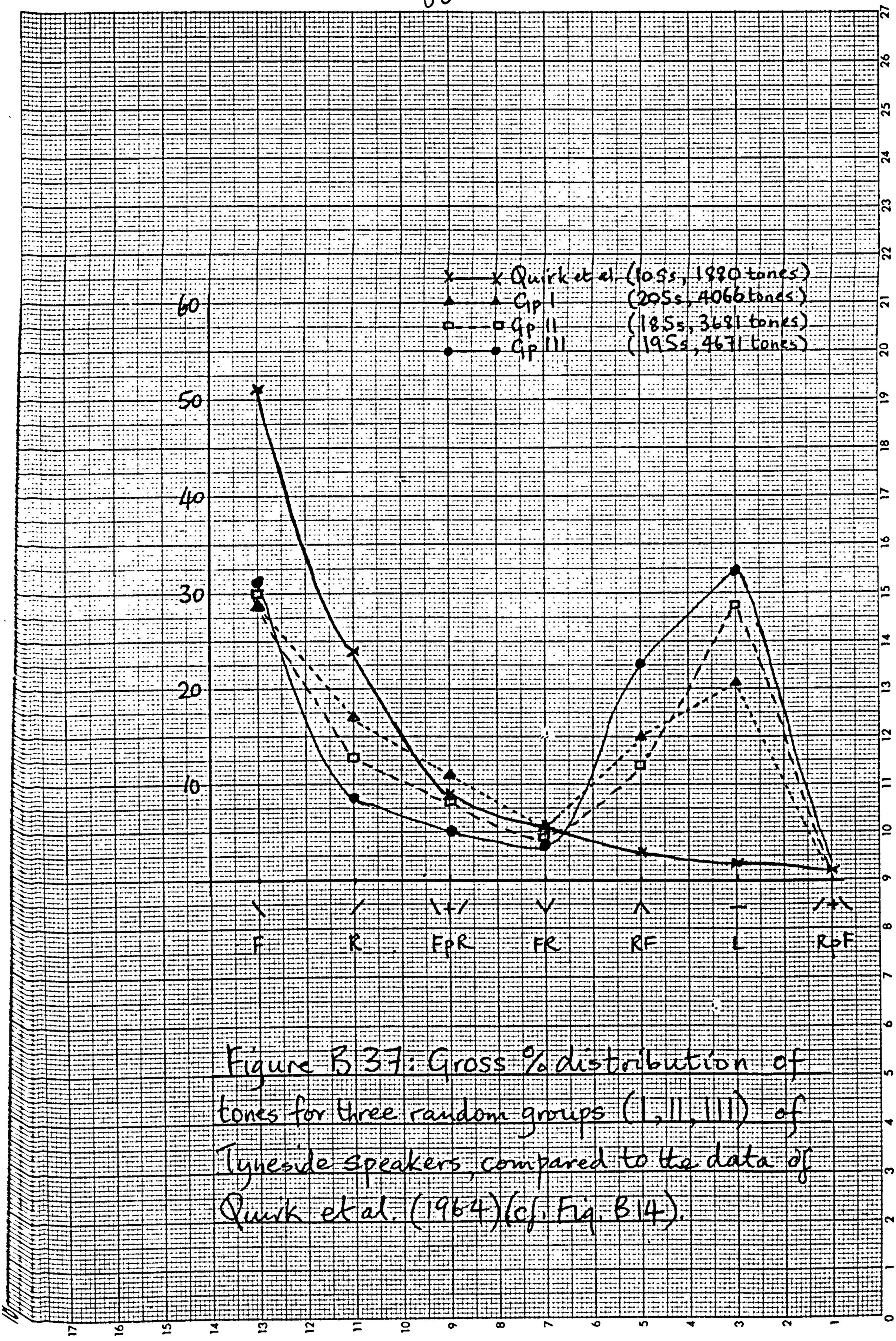


Figure B 37: Gross % distribution of tones for three random groups (I, II, III) of Tyneside speakers, compared to the data of Quirk et al. (1964) (cf. Fig. B 14).

Figure B37a: Ranking by tonic frequency for each informant.

	F	R	F(pR)	FR	RF	L
Q	**1**	**2**	**3**	**4**	**5**	**6**
Gp III						
Arn 1	2	4	5	6	3	1
Boy 2	2	4	6	5	3	1
Dru 3	1	4	6	5	3	2
Fr 4	2	4	5	6	3	1
Gra 5	3	4	5	6	2	1 !
Hea 6	2	4	6	5	3	1
Hew 7	2	3	4/5	6	4/5	1
Mar 8	1	5	6	4	2	3
Mil 9	2	4	5	6	3	1
Ste 10	1	4	6	5	3	2
Tu 11	1	4/5/6	4/5/6	4/5/6	2	3
Wa 12	2/3	5	4	6	2/3	1 !
Whit 13	1	4	5	6	3	2
Smi 14	1	3	4	5	6	2
Sco 15	1	3	2	6	4	5
Rol 16	1	3	4	6	2	5
Rob 17	1	4	5	6	2/3	2/3
Cla 18	2	4	5	6	3	1
Ast 19	2	4	5	6	3	1
Gp II						
Al 20	3	1	6	4	5	2
Ak 21	1	6	2	4	3	5
Br 22	1	4	5	6	3	2
Ca 23	1	3/4	5	6	3/4	2
Cu 24	2	3	4	6	5	1
El 25	2	3	5	6	4	1
Fo 26	1	4	3	6	5	2
Ja 27	1	5	3	6	2	4
Ki 28	1	5	3	6	4	2

(cont. on next)

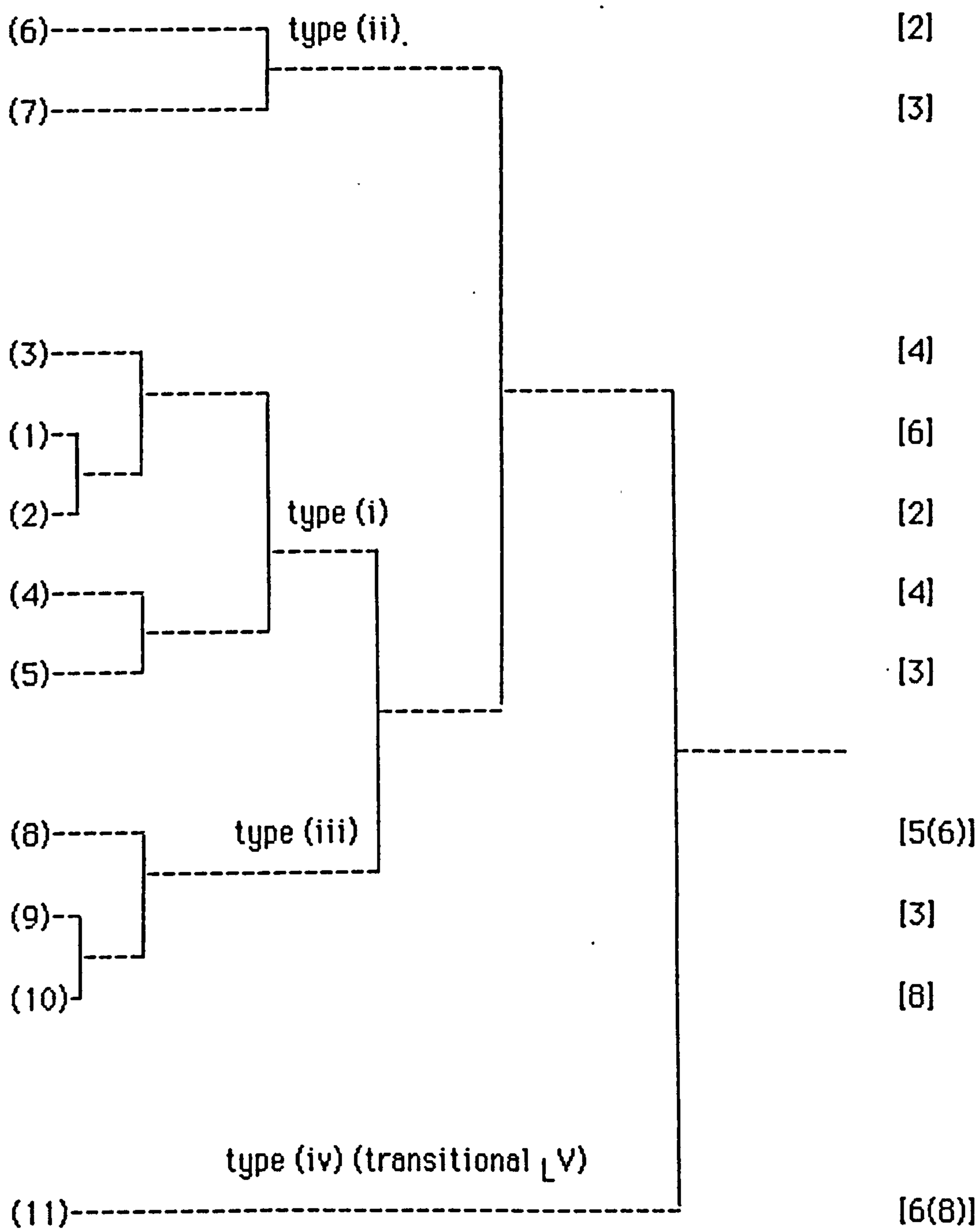
Fig. B37a (cont.)

(Gp. II)							
Lo	29	2	3	4	6	5	1
Mu	30	1	3	5	6	4	2
Ni	31	2	3	5	6	4	1
No	32	2	3	4	6	5	1
Ph	33	2	4	5	6	3	1
Sa	34	2	5	3/4	6	3/4	1
Su	35	1	4	6	5	3	2
Tea	36	2	5	4	6	3	1
Th	37	2	3	5	6	4	1
Gp I							
He	38	1	2	3	5	6	4
Ga	39	3	4	2	5	6	1 !
Wi	40	1	3	5	4	2	6
S	41	6	1	5	4	3	2 !!!
Wa	42	4	2	6	5	3	1 !
N	43	1	4	3	6	2	5
O	44	1	4	5	6	2	3
Cl	45	1	2	5	6	3	4
T	46	1	2	5/6	5/6	4	3
Cr	47	1	4	5	6	3	2
BW	48	1	5	3	4	6	2
Ch	49	1	5	4	6	2	3
Gr	50	1	5	4	3	6	2
D	51	2	1	6	5	4	3
We	52	2	5	4	6	3	1
Mc	53	1	3/4	5	6	3/4	2
F	54	1	3	5	6	4	2
Ar	55	2	1	5	6	4	3
Ha	56	1	4	5	6	3	2
An	57	1	4	5	6	3	2

Figure B37b: Grouping of speakers in terms of their shared tonic frequency ranking.
(Accounting for 49/57 of the speakers, i.e. omitting 5, 14, 30, 39, 45, 46, 49, 54.)

	Pattern F	R	F(pR)	FR	RF	L	Shared by informants
(1)	2	4	5	6	3	1	1, 4, 9, 18, 19, 33
(2)	2	4	6	5	3	1	2, 6
(3)	2	5	4	6	3	1	12, 34, 36, 52
(4)	2	3	5	6	4	1	7, 25, 31, 37
(5)	2	3	4	6	5	1	24, 29, 32
(6)	2	1	5	6	4	3	51, 55
(7)	-	1/2	-	-	-	2/1	20, 41, 42
(8)	1	5	-	-	-	2/3	8, 11, (26), 28, 48, 50
(9)	1	4	6	5	3	2	3, 10, 35
(10)	1	4	5	6	3	2	13, 17, 22, 23, 47, 53, 56, 57
(11)	1	3/4/5	-	-	-	4/5/6	15, 16, 21, 27, 40, 43, (44), (38)

Figure B37c: Subjectively drawn dendrogram of the types present in the grouped patterns of Fig. B37b. (Not scaled. Numbers of informants for each pattern appear on the right in [ ].)



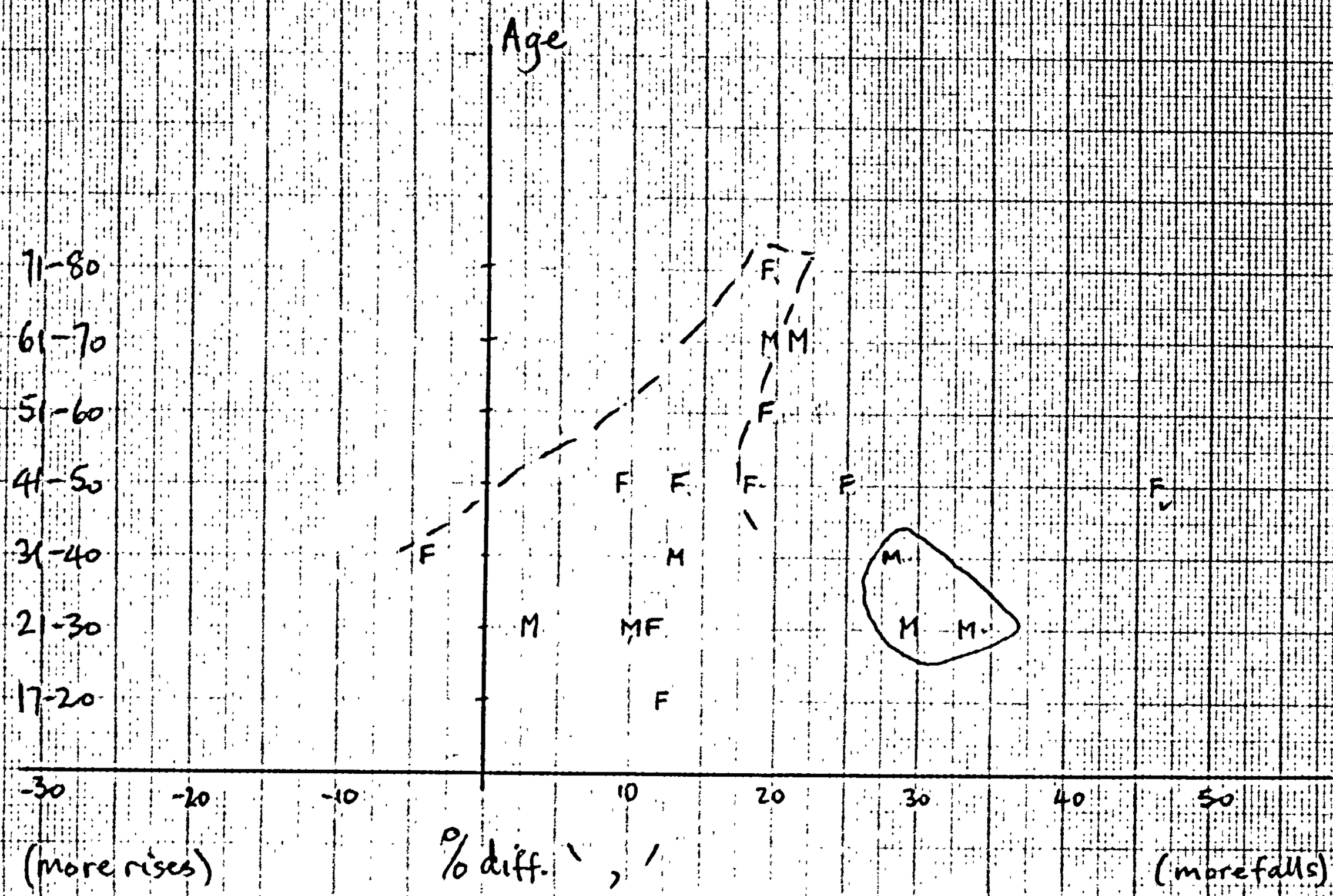


Figure B38: Age against Fs, % all tones, as a difference from Rs, % all tones (Gp II) (M = Male; F = female) — cf. Fig. B16.

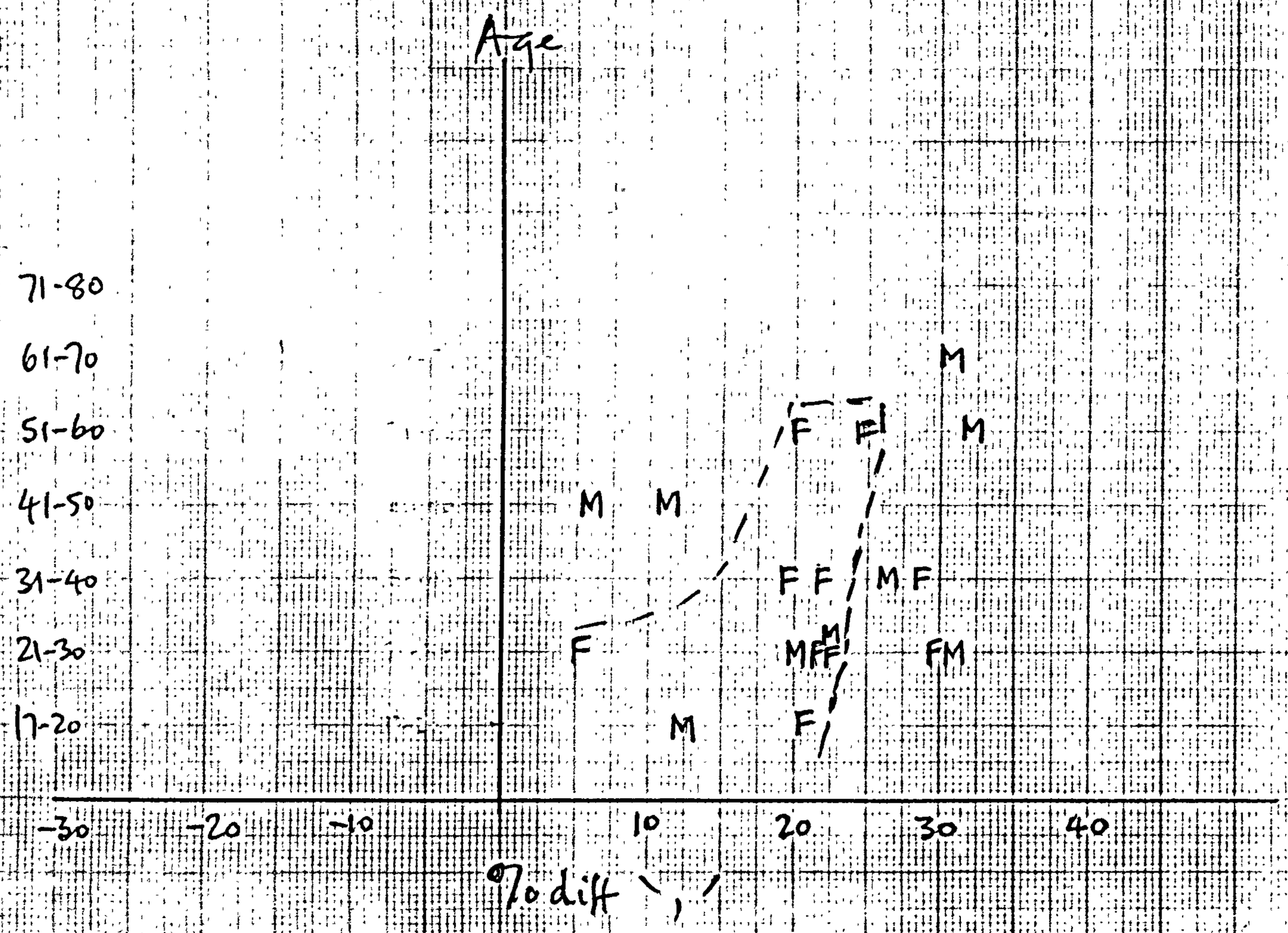


Figure B 39: Age against Fs, % all tones, as a difference from Rs, % all tones (Gp III) (M = male; F = female) – cf. Figs. B16 & B38.

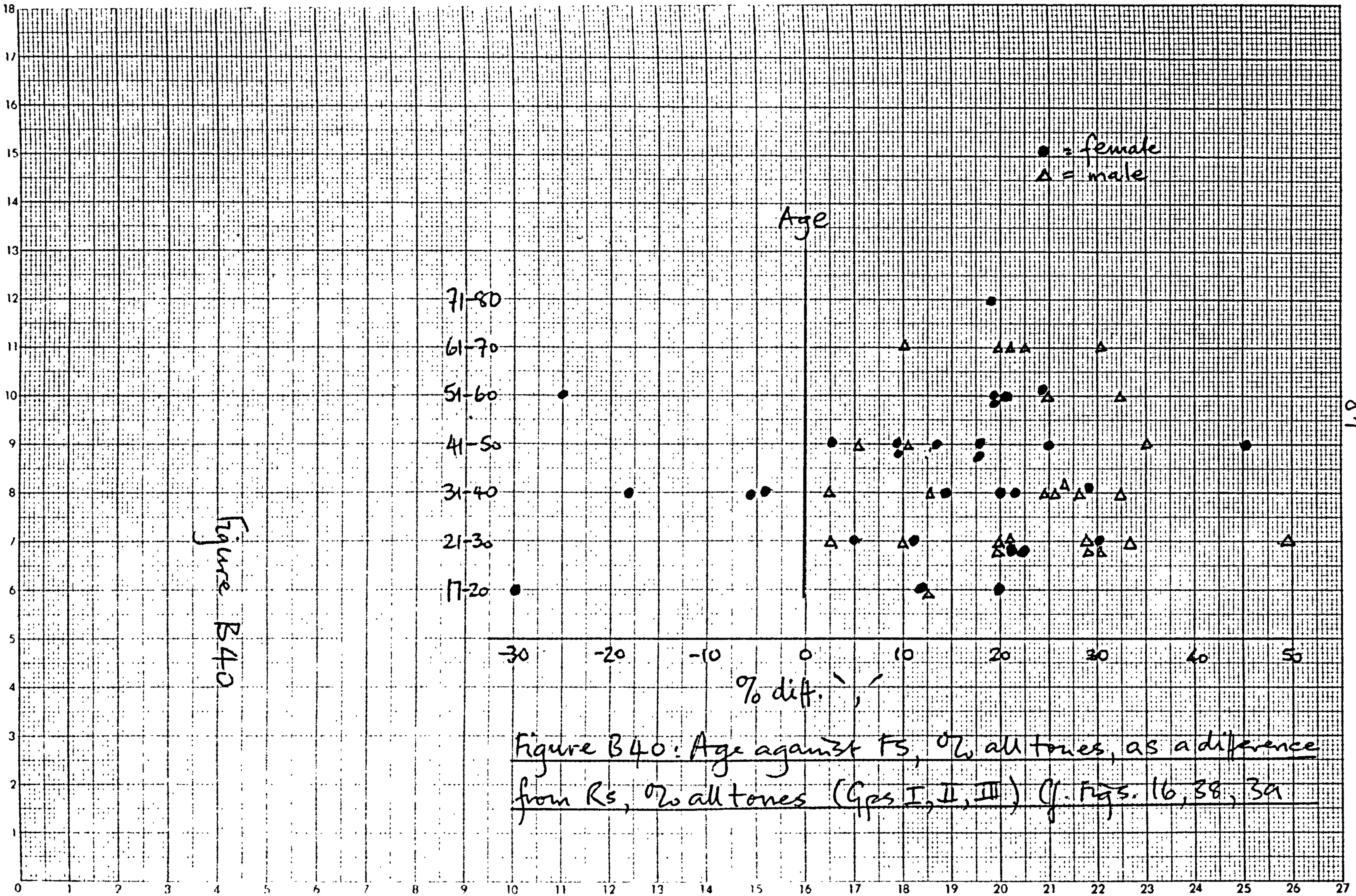


Figure B40: Age against FS, % all tones, as a difference from RS, % all tones (Gps I, II, III) Cf. Figs. 16, 38, 39

Figure B40

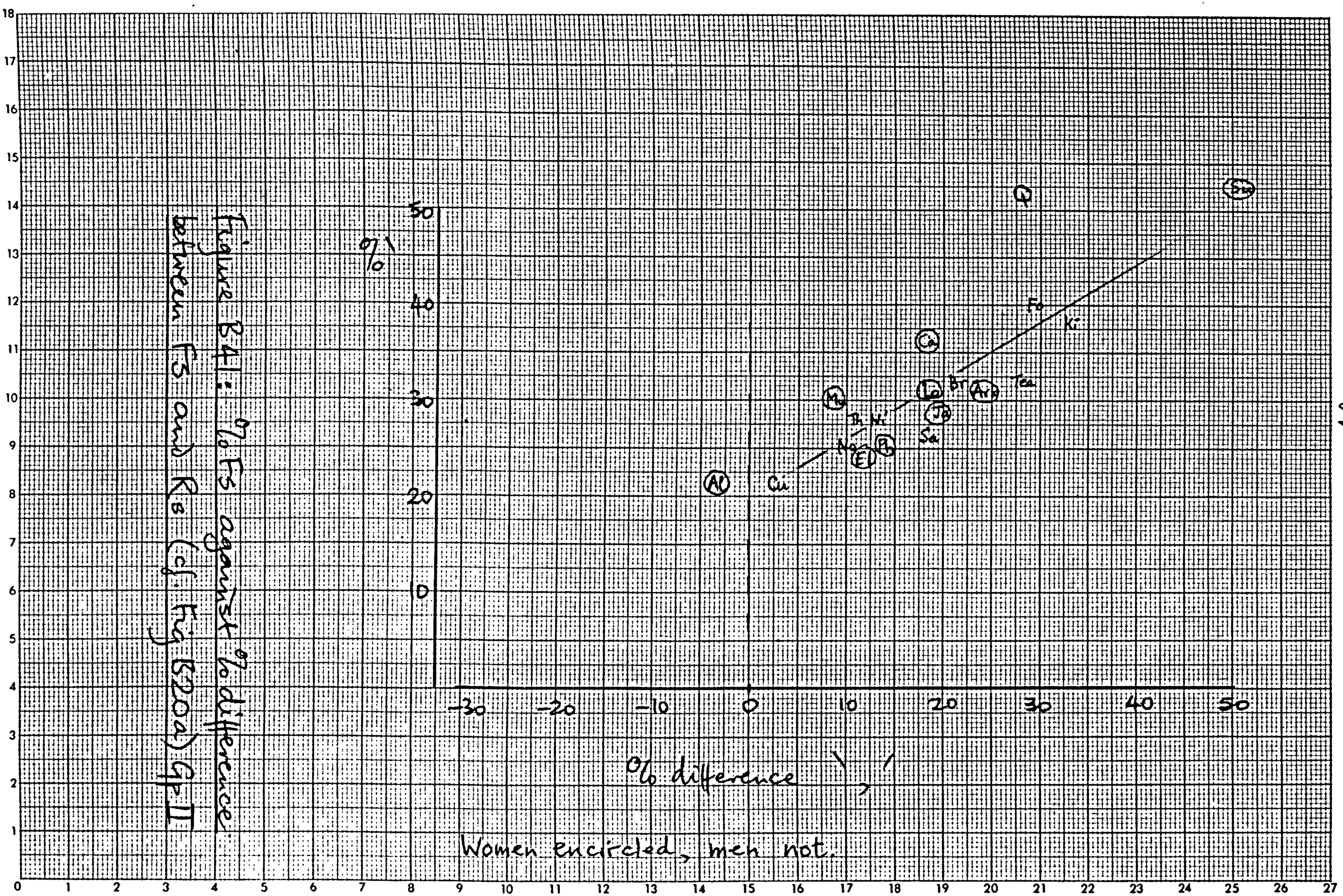


Figure 84: % Fs against % difference between Fs and K_B (cf. Fig 520a) Gp II

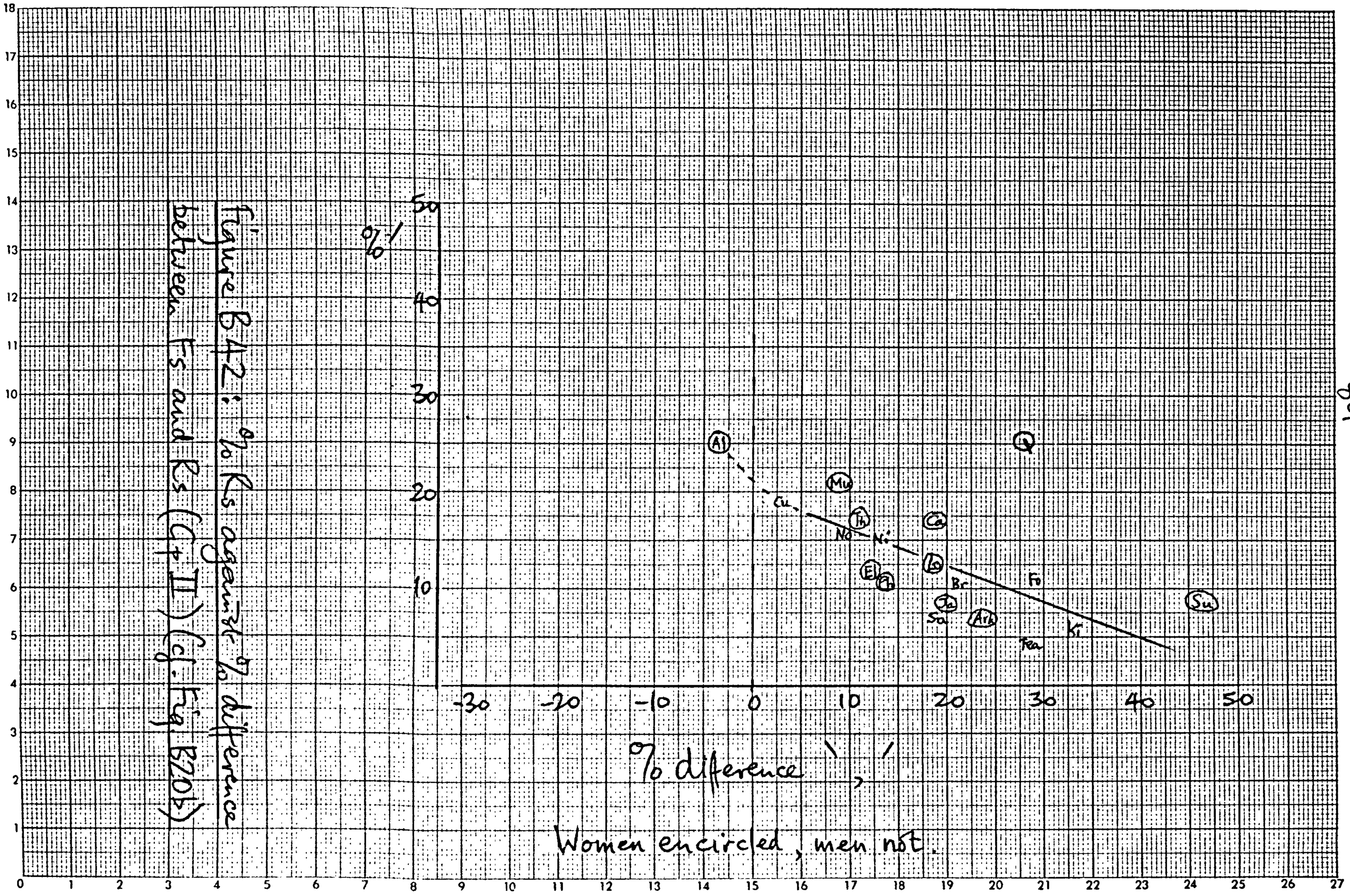


Figure B42: % K_s against % difference between F_s and K_s ($C_4 + II$) (cf. Fig. B20b)

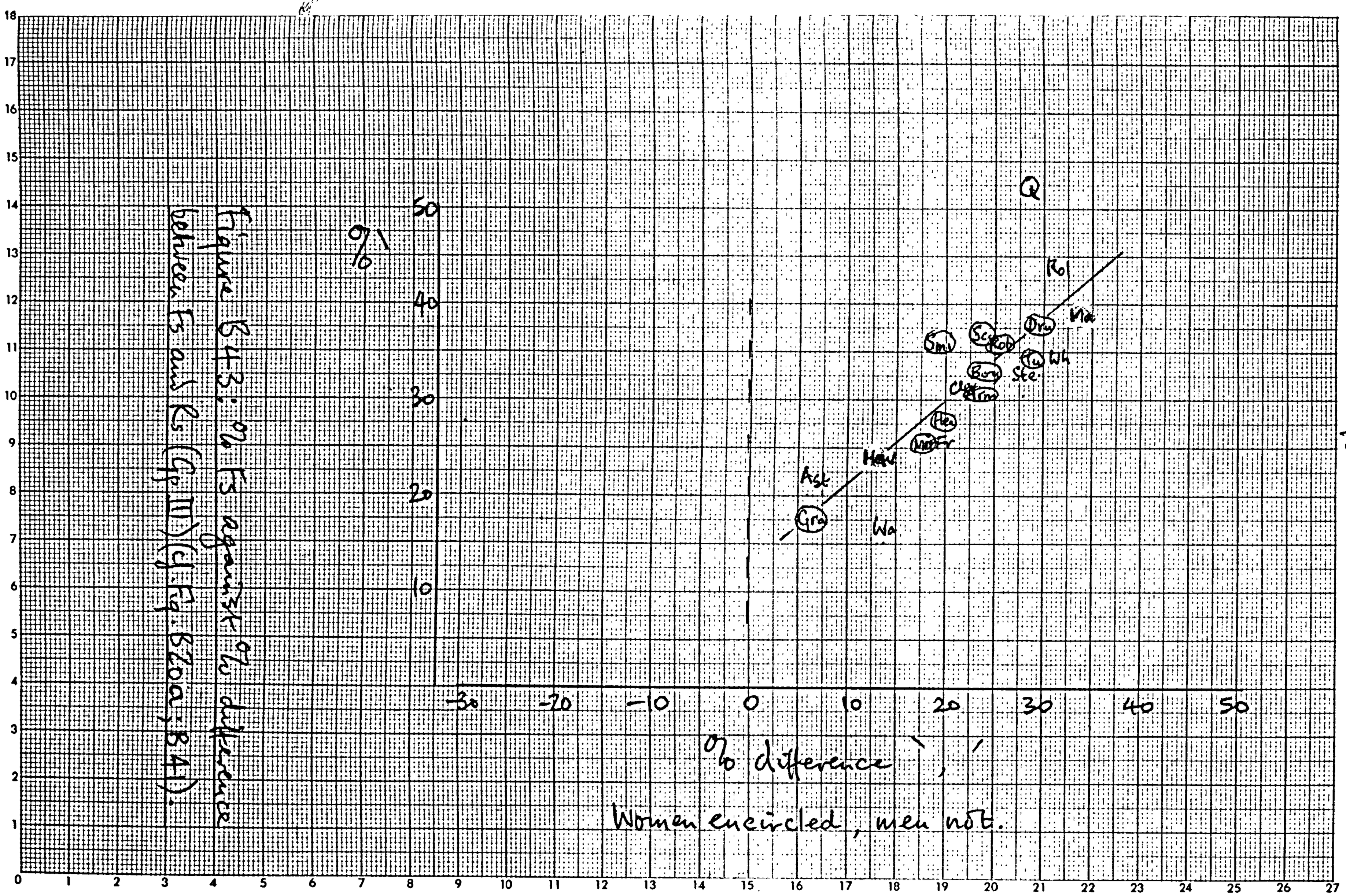


Figure 543: % difference between F5 and K5 (Gp III) (df: F4: 8200a; 8401).

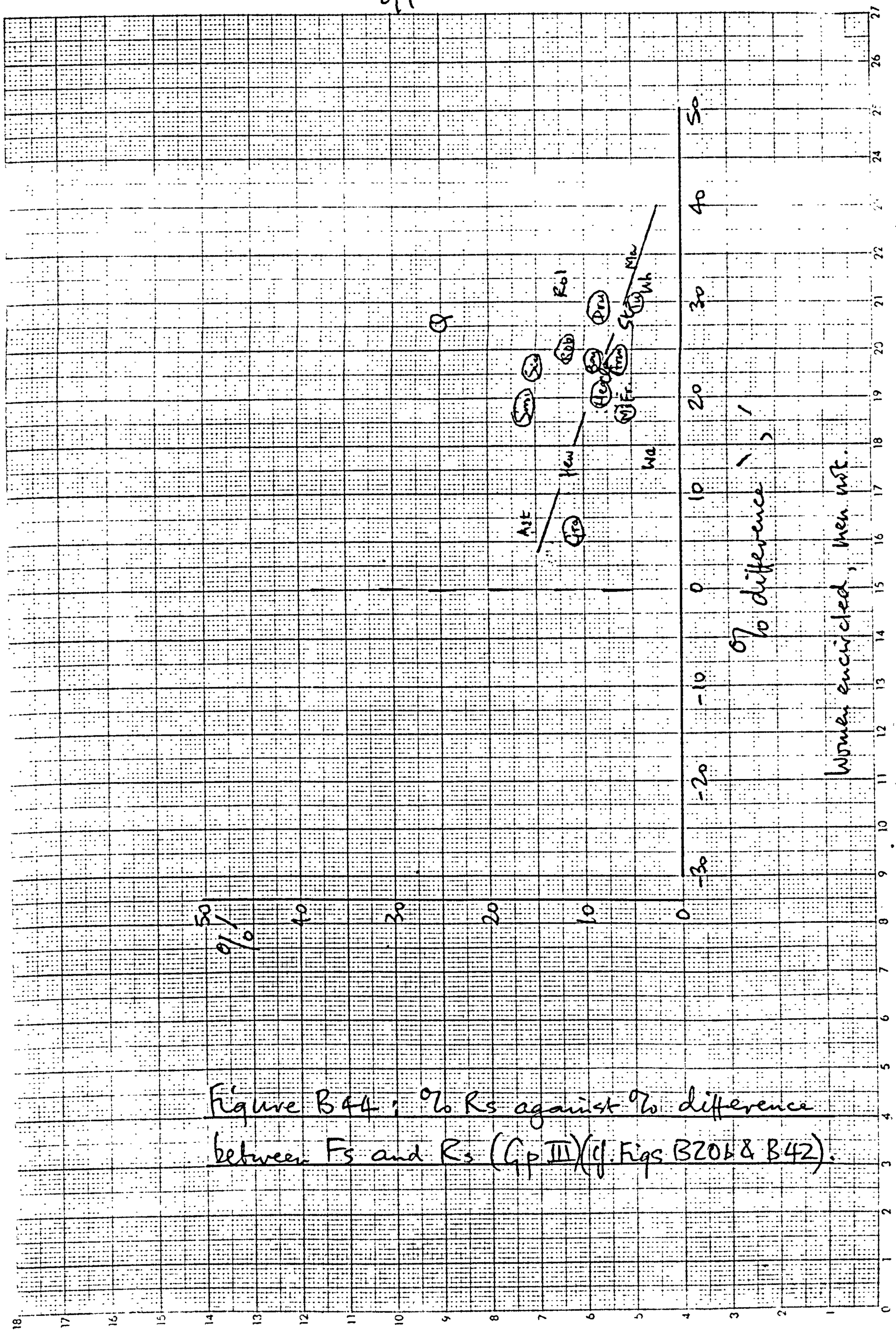


Figure B44: % Rs against % difference between Fs and Rs (Gp III) (cf. Figs B20b & B42).

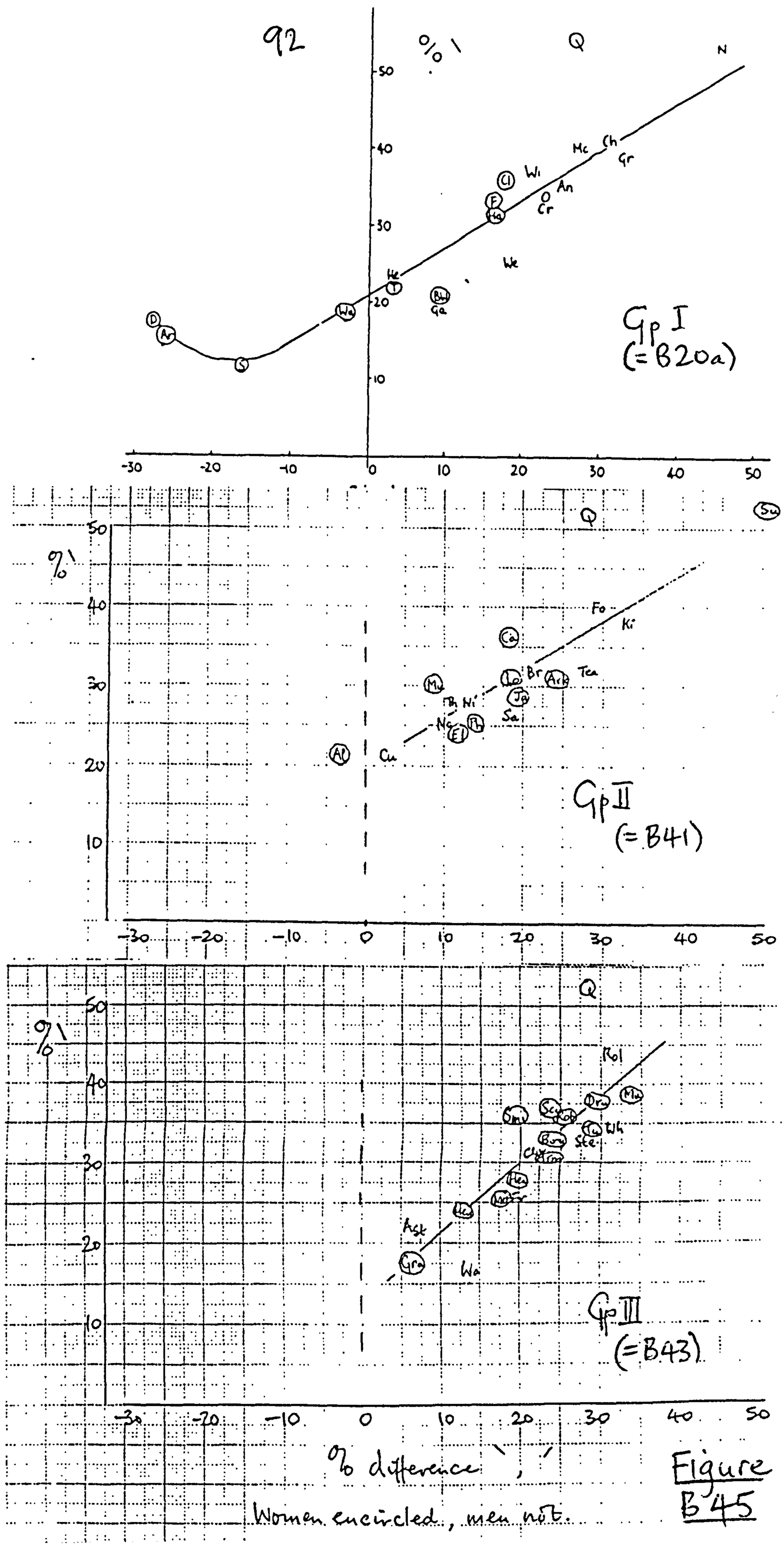
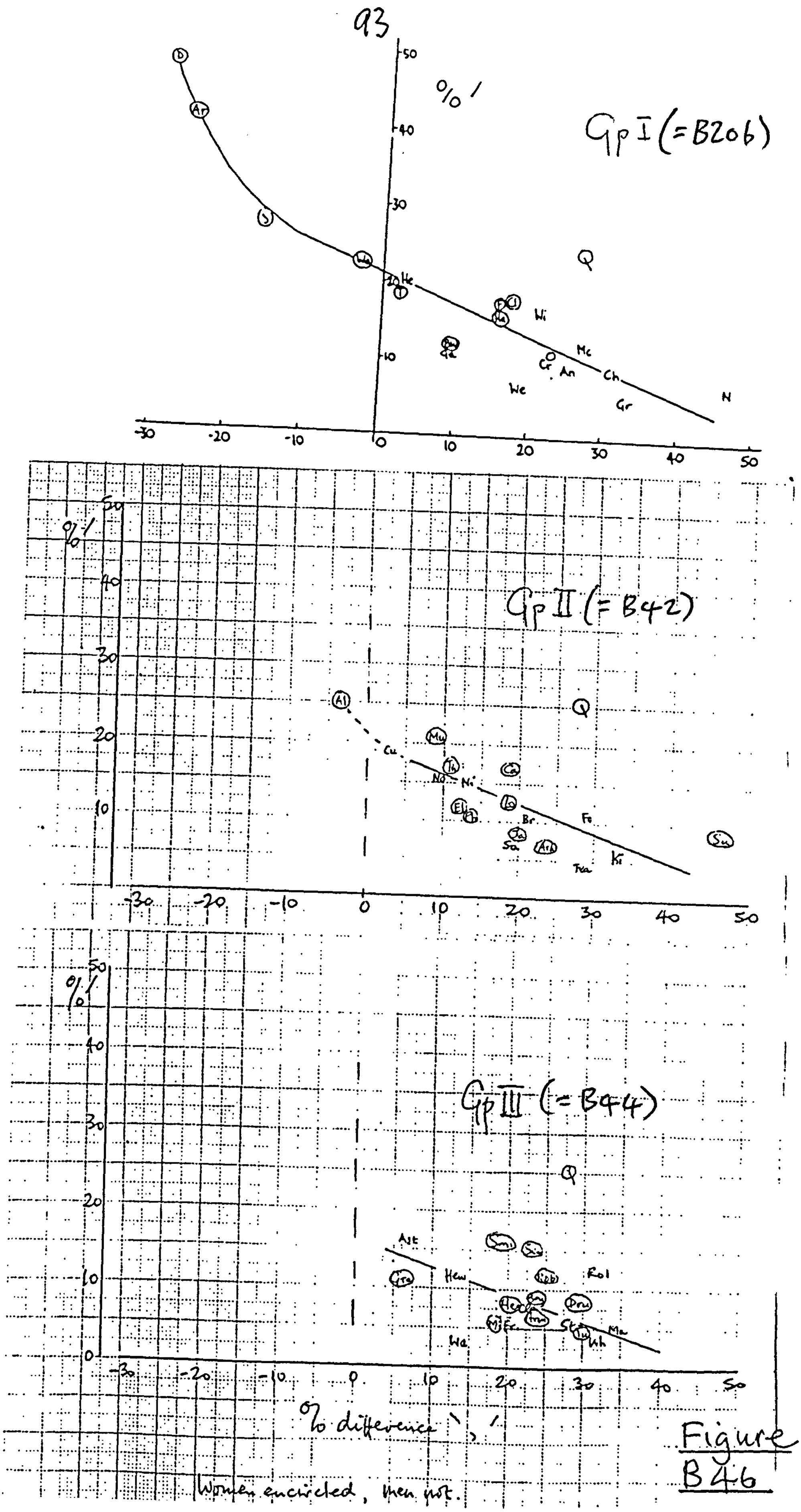


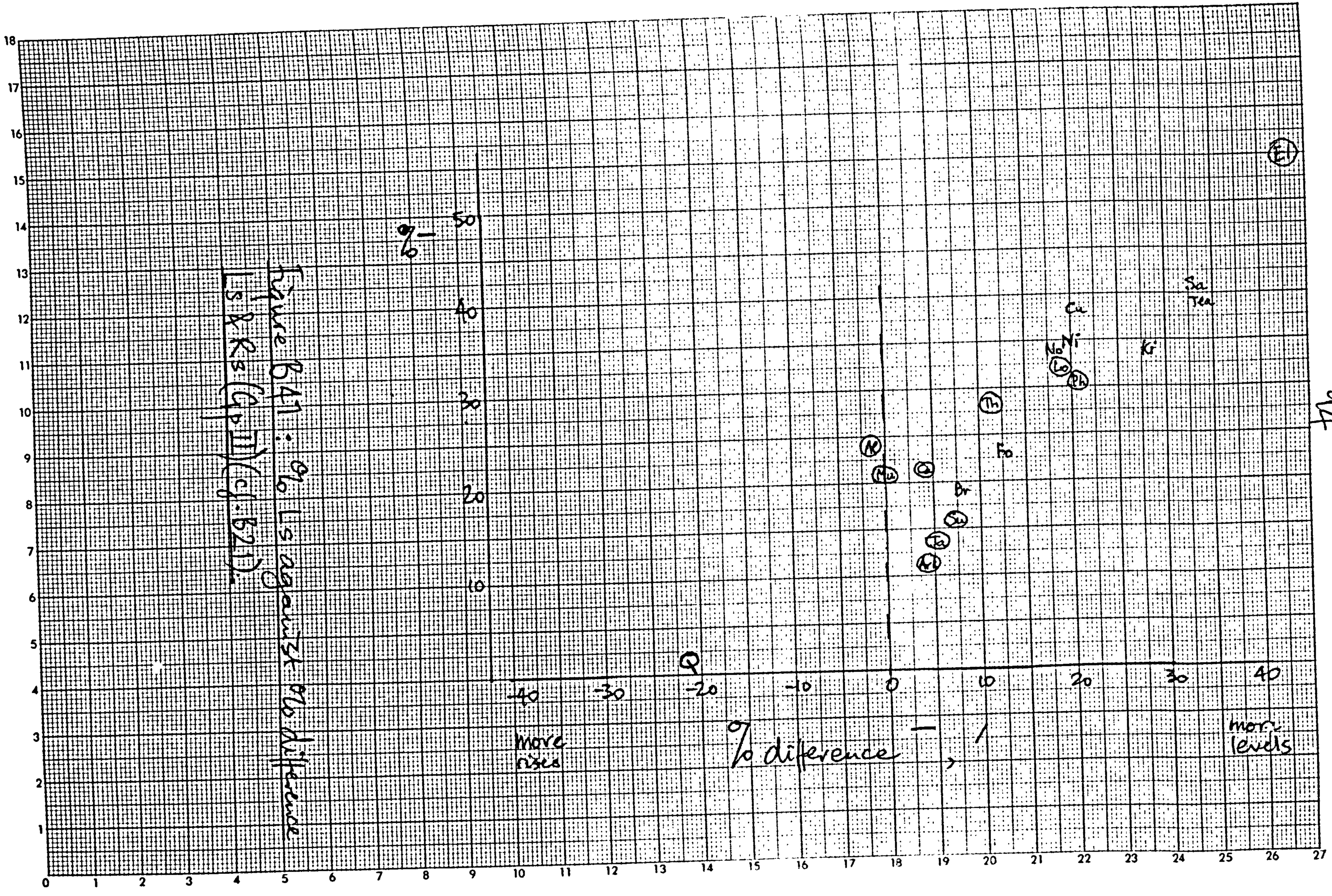
Figure B45

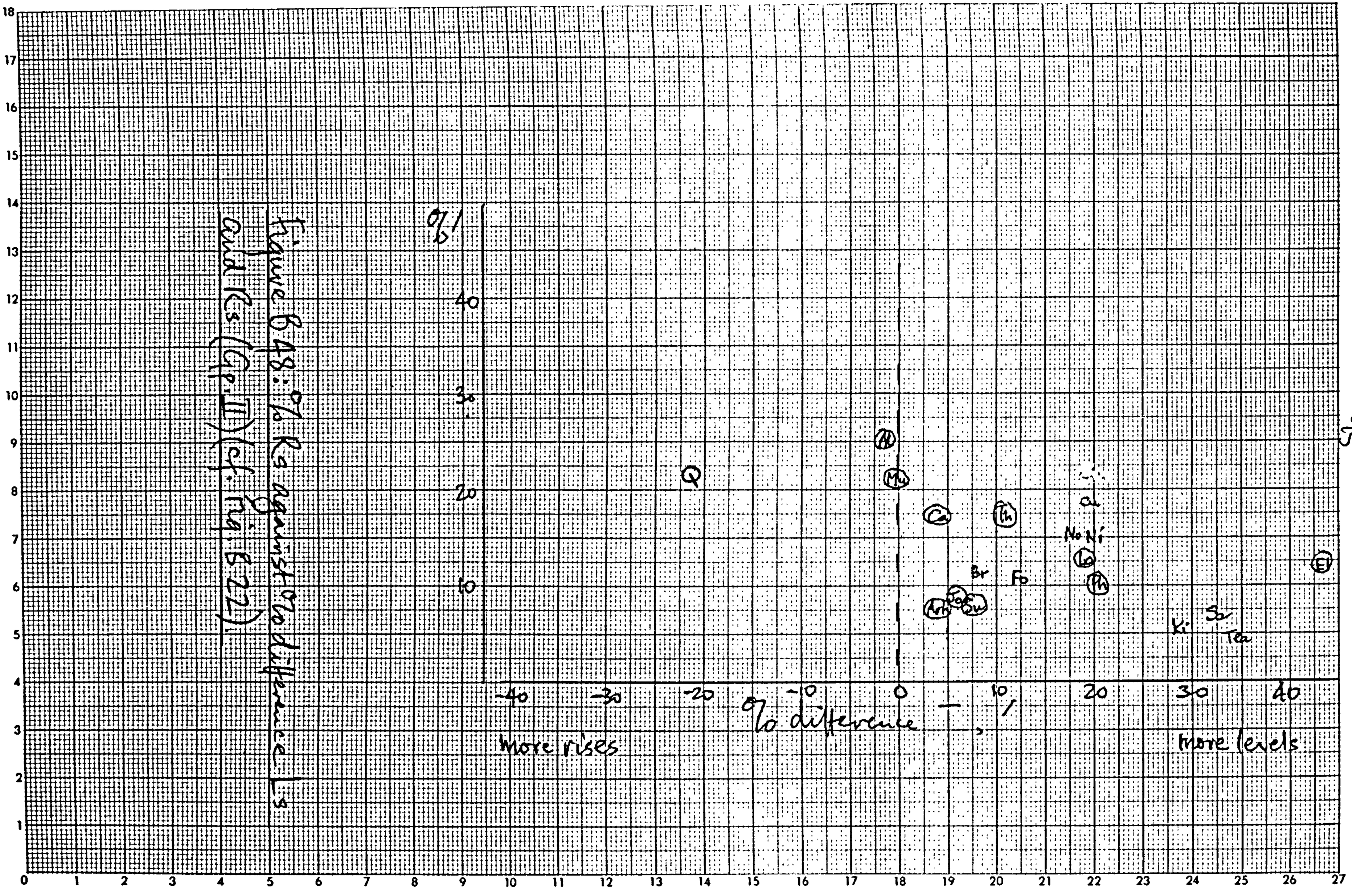
Figs. B20a, B41, and B43 printed together for comparison.



Figs. B20b, B42 and B44 printed together for comparison.

Figure B46


% Ls against % difference
Figure 641: (cf. 521)
Ls & Ks (Gp III)
50
40
30
20
10
-40
-30
-20
-10
0
10
20
30
40
more rises
% difference
more levels
Sa
Tea
Cu
Ni
No
Ki
Fo
Br


% Rs against % difference Ls
and Rs (Gp. II) (Gp. III)
(cf. Fig. 5.22)
% difference
more rises
more levels
Q
Mu
Ca
Th
Br
Fo
Ki
Sa
Tea
No
Ni
Ph
El

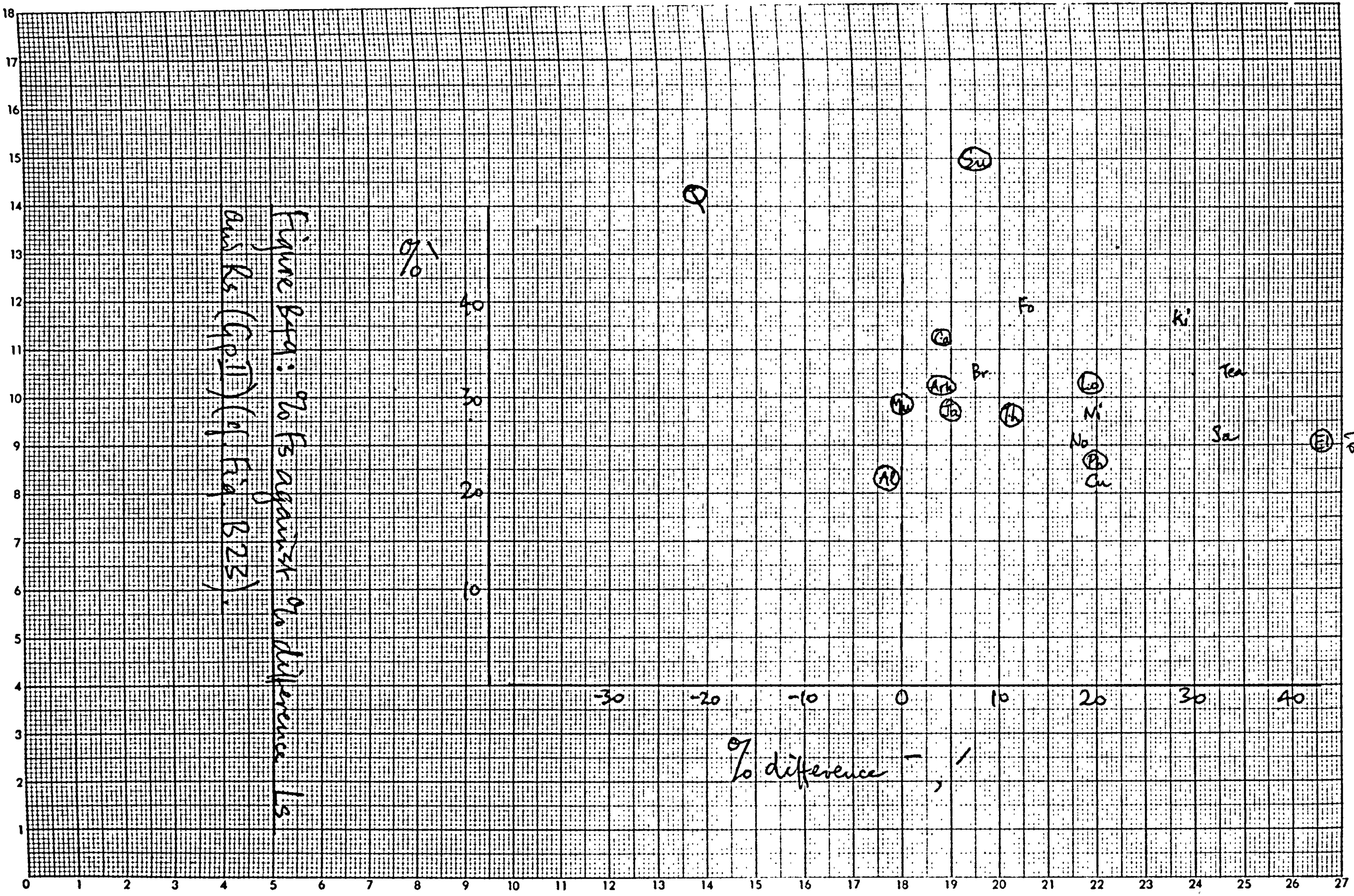
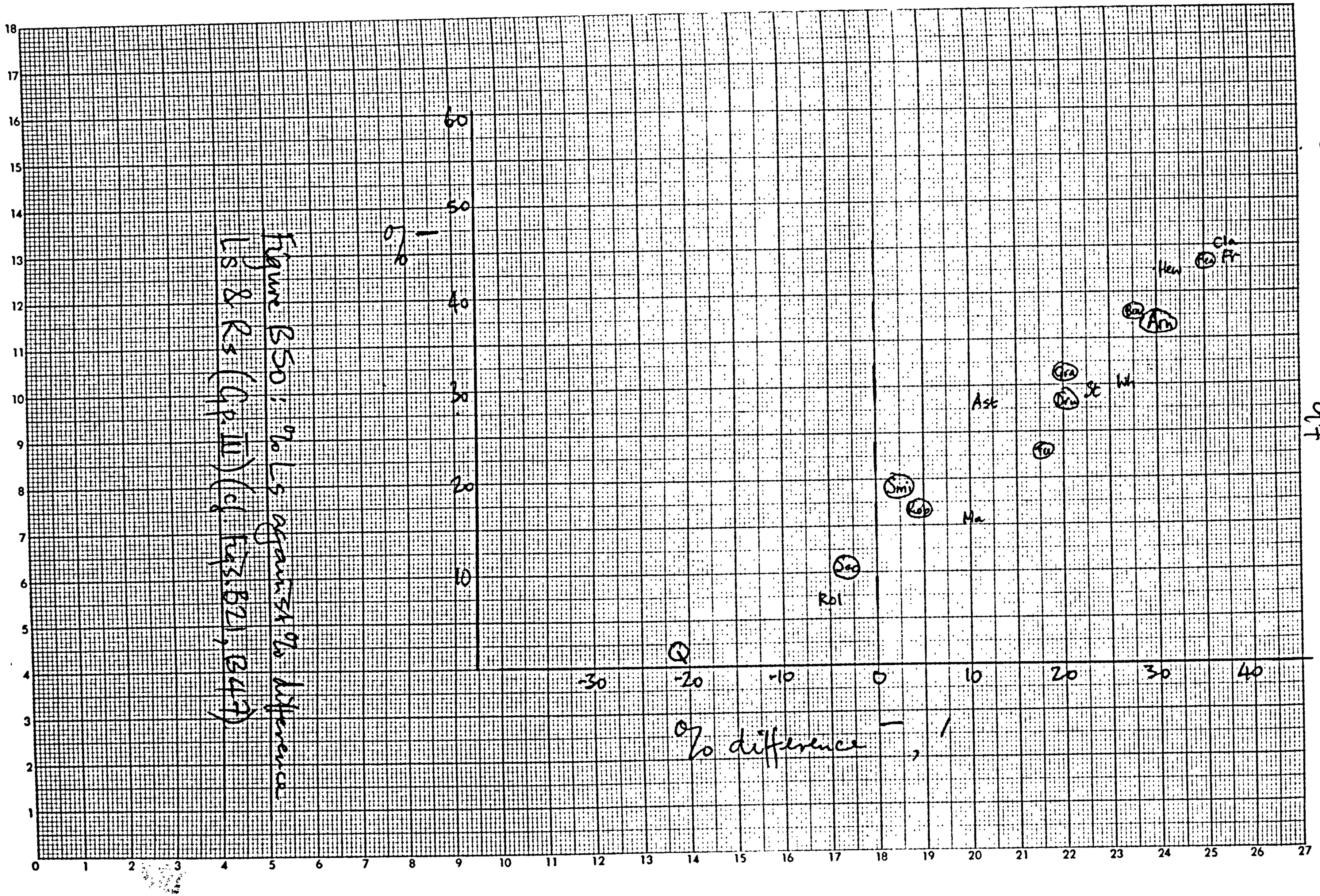


Figure B4a: % Fs against % difference Ls
and Ks (Gp. II) (Gp. Fig. 1 B25).


% difference
Q
Ast
Ma
Rol
Smi
Hew
Cla
Fr
Arn
St
Wh
Figure 5.50: % LS against % difference
LS & KS (Cp. III) (cf Figs. 8.21, 8.47)

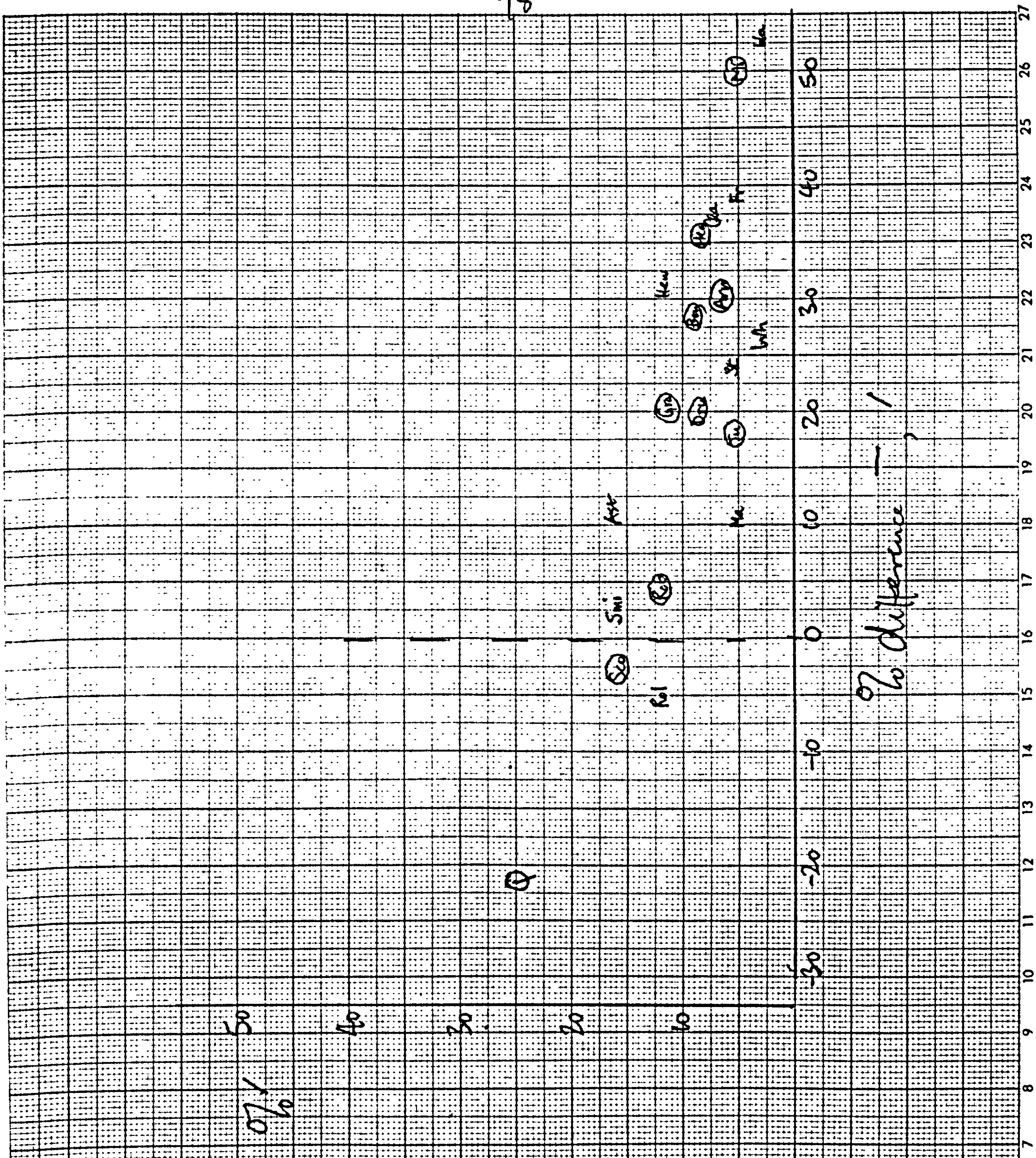


Figure B51: % Rs against % difference LS & Rs (Gp. III) (cf. Figs. B22, B48).

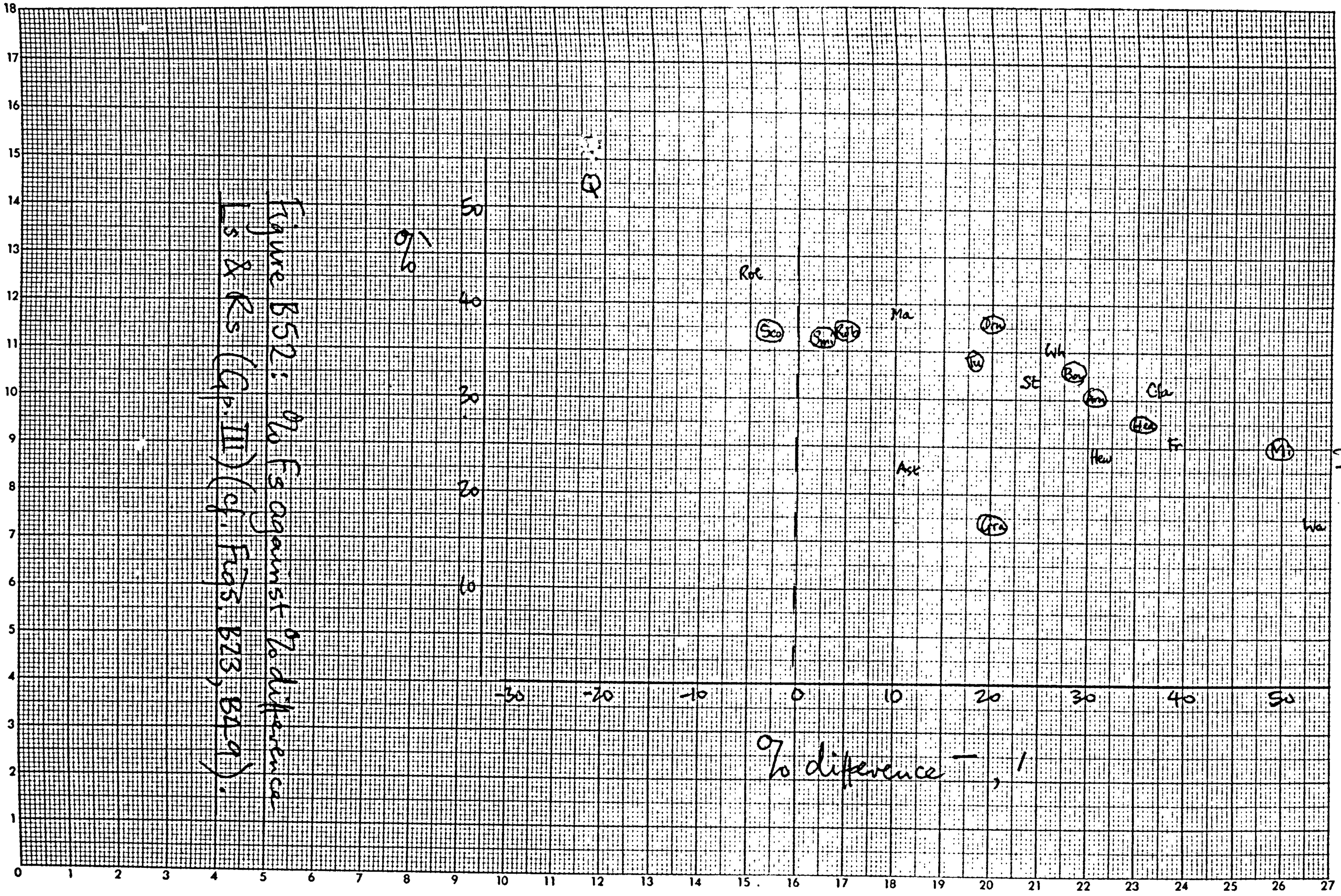


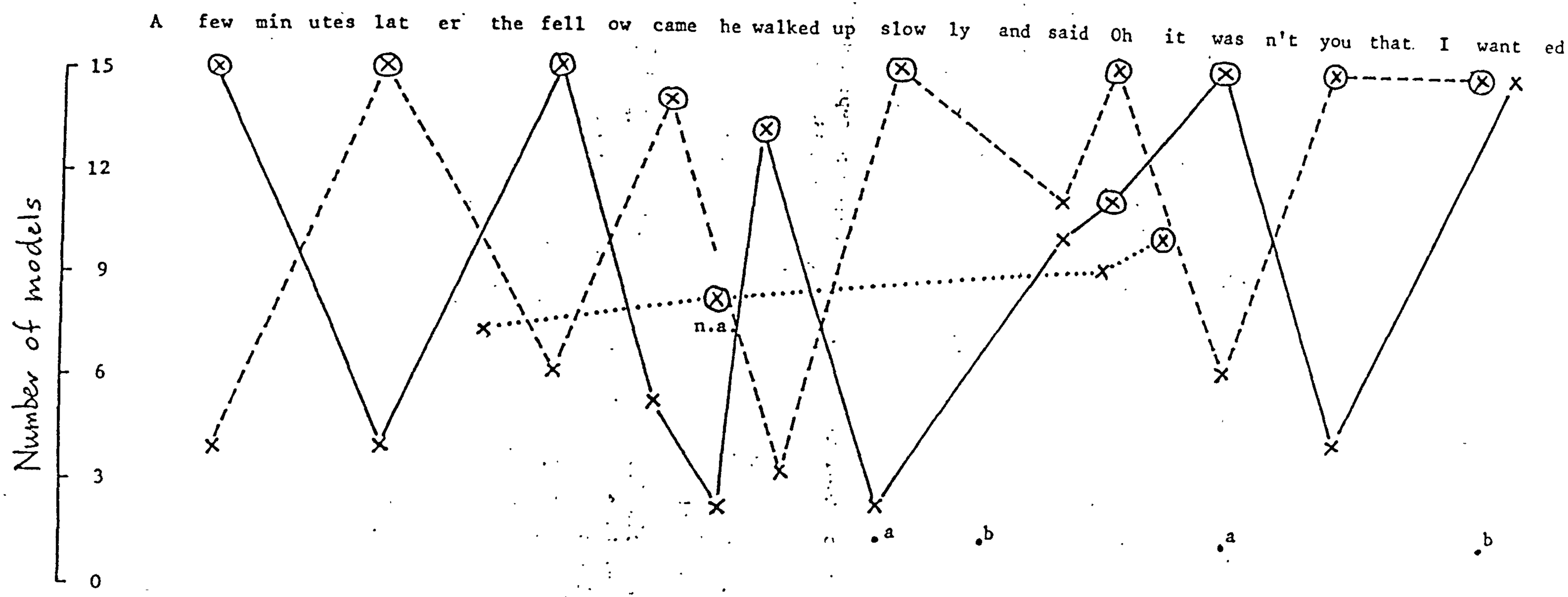
Figure B52: % Fs against % difference Fs & Rs (cf. Figs. B23, B49).

	H1	H2	W1	W2	P1	P2	F1	F2	Hu1	Hu2	K1	K2	Su1	Su2	NORM (14 mols.)	Q.&C.
A	/	/	/(\)	\		/									(/)	
few mins later	∨	∨	(/)\	\	/	∨	\	\	∧	—	/	/	∨	∨	∨	/
the fellow			\	\			\	\							(\)	
came	\	\	—	\	\	\	\	\	\	\	\	\	\	∧	\	\
he walked			—	/(\)												
up slowly	/	∨	—	(/)\	∨	\(/)	∨(/)	\(/)	∼	∼	—	\(/)	∨	∨	∨	∨
& said	—	—	—	—	/	(\)/	(\)/	(\)/			—	(\)/			(—)	
Oh	\	∧	\	\	∧	∧	∧	\	∧	∧	\	\	\	∧	∧	∧
it																
want	\	∧	\	\				\			(\/)				(\)	
you	∼	∼	∨	∨	∧	∧	∧	∨	∧	∧	(\)/	∧	∧	∧	∧	\
that																
wanted	∼ ∧		\ ∧		/ /		/ \		/ /		/ /		/ /		/	/
TOTAL CHANGES :	4		6		4		4		1		4		2			
DIFFT. CHANGES :	3		6		4		4		1		4		1			
→ MORE COMPLEX:	2		3		3		1		0		1		1			

Figure B54: TONIC VARIATION AMONGST PAIRS OF MODEL SENTENCES PRODUCED BY 7 SPEAKERS

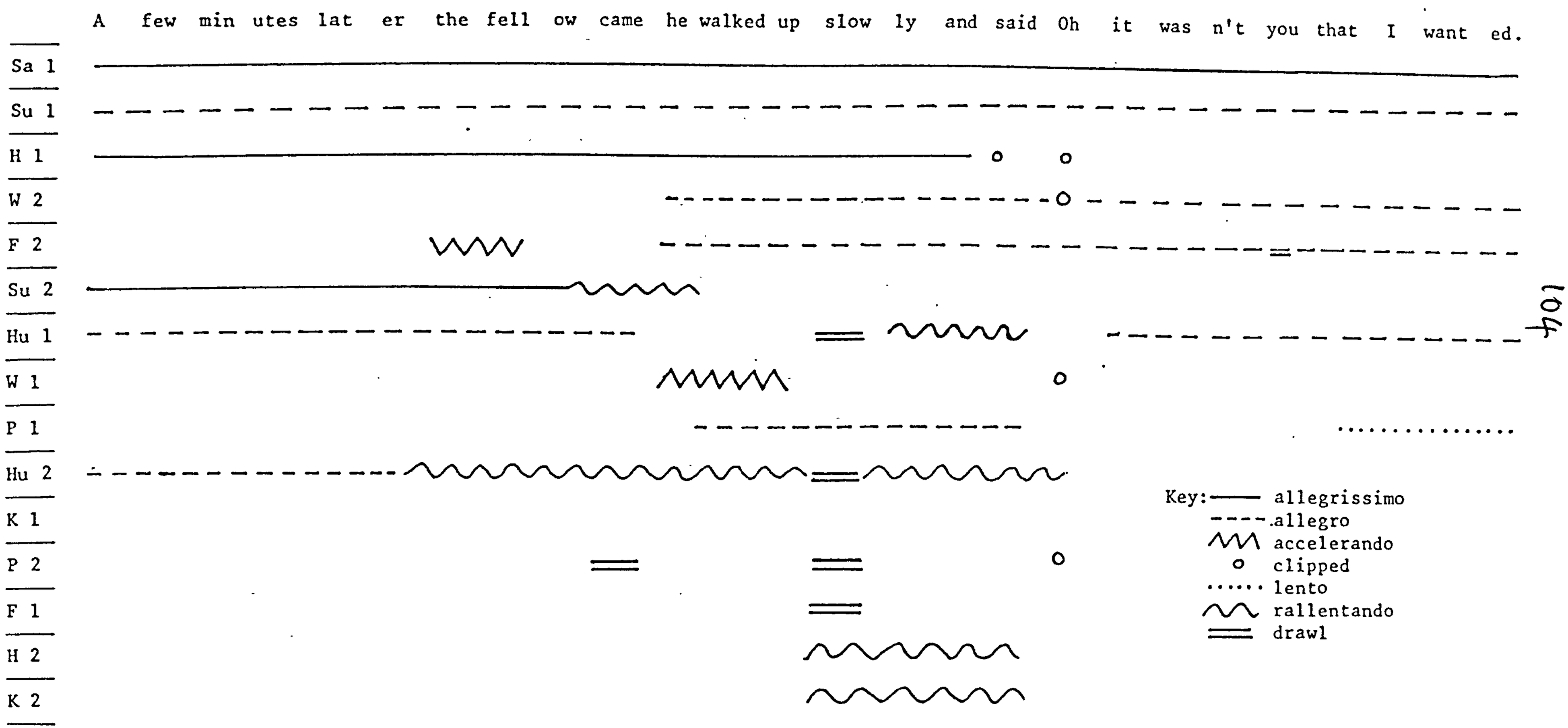
A	\	/	—	^	V	\(/)	(\)/	^\	/(\)	(/)\	N models [16]	N spkrs [9]	TYPICALITY OF Q.C. PRESENCE	ABSENCE
few	1	3							1		5	3		✓
mins														✓
later	4	3	1	1	6					1	16	9	×	
the														✓
fellow	5										5	3		✓
came	13		1	1							15	8	✓	
he														✓
walked	1		1						1		3	2		✓
up														✓
slowly		1	2		6	4		2		1	16	9	✓	
&														✓
said		1	5				4				10	5		×
on	7			9							16	9	✓	
it														✓
wasn't	4										6	4		✓
you				9	3	1	1	2			16	9	×	
that														✓
I														✓
wanted	2	10		2			1				16	9	×	

Figure B55: DISTRIBUTION OF TONIC VARIATION AMONGST 16 MODELS FROM 9 SPEAKERS (INCL. Q.C. THE TYPICALITY OF WHICH IS INDICATED). [QC nuclei underlined]



Nuclear location: - - - - (72.1%)
Onset: ———— (61.5%)
Pause: ····· (57.6%) (ignoring 1 modeller) a b a b
Place of features in QC: ⊗

Figure B56 Placement of nucleus, onset, pause: Agreement between models.



Variability of 15 models in terms of realisations from simple and complex systems of tempo

Figure B57

MODELS

IMITATORS	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
2	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
3	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2
4	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2
5	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2
6	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2
7	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2
8	-	-	2	2	2	2	2	2	3	3	3	3	3	3	3
9	-	-	2	2	2	2	2	2	3	3	3	3	3	3	3
10	-	-	2	2	2	2	2	2	3	3	3	3	3	3	3
11	-	-	2	2	2	2	2	2	3	3	3	3	3	3	3
12	-	-	2	2	2	2	2	2	3	3	3	3	3	3	3
13	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3

Figure B58: Conditions of Models heard by Imitators (1, 2, 3 parts)

- model not presented to imitator

O self imitation

Figure B59 : FRAGMENT OF THE 'IMITATIONS' BY SIX INFORMANTS (1,...,6) OF ONE MODEL (3(KNa)) TO ILLUSTRATE TRANSCRIPTION PROCEDURE AND TYPES OF VARIABILITY.

Σ	MODEL TONES 28 ↘		20 ↗		9 —		17 ∧		11 ∨		4 ∼		ΣΣ	89 TOTALS	
Imitators:	4	9	4	9	4	9	4	9	4	9	4	9		4	9
Imitators' changed exponents: ↘			0	0	2	1	0	5	0	2	0	0		2	8
↗	1	1			2	1	2	1	0	0	0	0		5	3
—	0	0	2	1			0	0	0	0	0	0		2	1
∧	7	5	4	1	0	0			2	1	2	0		15	7
∨	2	0	1	1	1	1	1	1			0	0		5	3
∼	0	0	0	0	0	0	2	0	1	0				3	0
Expounded changes	10	6	7	3	5	3	5	7	3	3	2	0		32	22
∅	4	7	5	4	1	0	2	0	0	0	0	0		12	11
Total changes	14	13	12	7	6	3	7	7	3	3	2	0		44	33
As models	14	15	8	13	3	6	10	10	8	8	2	4		45	56

Figure B 60 : Range and types of tonic alterations to 15 models by 2 imitators (4,9)

	FEW	LATER	FELLOW	CAME	SLOWLY	SAID	OH	WASN'T	YOU	WANTED
M1		\ 6/8	[\N] 3/3	:\ 8/8	:\= 5/6	+ /N 0/7	ΛW 6/8		Λ 4/8	,/ 8/8
M2		\ 8/8	[\] 6/6	:\ 8/8	\ 5/8	+ / 0/3	! \ 5/8	[\] 2/2	V 4/8	\ 6/8
M3		,/N 1/13		:\ 13/13	[,–] 5/12	:– 8/10	:\ 9/13	:\N 3/13	,/W 5/13	[,/N] 11/13
M4		,/ 9/13		:\ 13/13	:\ 9/13	+ /N 6/10	:\ 8/13		,ΛW 8/13	, / 13/13
M5		,/N 6/13		,\N 12/13	,VN 4/13	/N 2/10	Λ 11/13		;ΛW 5/13	, / 13/13
M6	/ 1/1	,V 6/13		:\ 12/13	:\ 6/13	+ / 7/13	ΛN° 10/12		,Λ 12/13	, / 13/13
M7	/ 0	,V 9/13		:\N 11/12	,/ 0/13	:– 10/13	:\ 5/13	[\N] 1/3	:~̄N 3/13	[~] 2/13
M8	,/ 4/4	V 11/13		:\ 12/12	,V 5/13	:– 12/12	:Λ 10/13	[ΛN] 1/7	~ 9/13	: Λ 13/13
%	/ 100	\ 87	[\] 100	\ 97	\ 62	/ 35	Λ 80	\ 33	Λ 62	/ 97
AGREEMENT		/ 41			V 35	– 86	\ 57	(Λ 14)	~ 46	(~ 15)
BY TONE		V 67			(/ 0)				(V 50)	(Λ 100)
BY PLACE					(– 42)				(/ 38)	(\ 75)

Figure B61 Distribution of agreements of tone selection in imitations of 8 models, according to tonicity

TONICITY

MODEL TONES	LATER	CAME	SLOWLY	SAID	OH	YOU	WANTED
\	/ 13	— 1	∿ 2 ∧ 15 ∨ 18 / 3		∧ 39 — 4		(/ 25)
/	\ 26 — 18 ∨ 15		\ 62 ∨ 23 ∧ 15	— 62 ∨ 3		∧ 46 (\ 8) (∨ 8)	\ 2 — 1
∨	\ 26 — 2 / 5		\ 42 ∧ 19 ∿ 4			(\ 37) (∧ 13)	
∧					\ 20	\ 13 / 25	
—			\ 58	/ 11 \ 3			
∿						∧ 19 ∨ 19 / 8 \ 8	\ 31 ∧ 23 / 23 — 8

Figure B 62 : %-complement distribution of Fig. B 61 model tones in imitations of 8 models by 13 imitators, according to tonicity (i.e. disagreements).

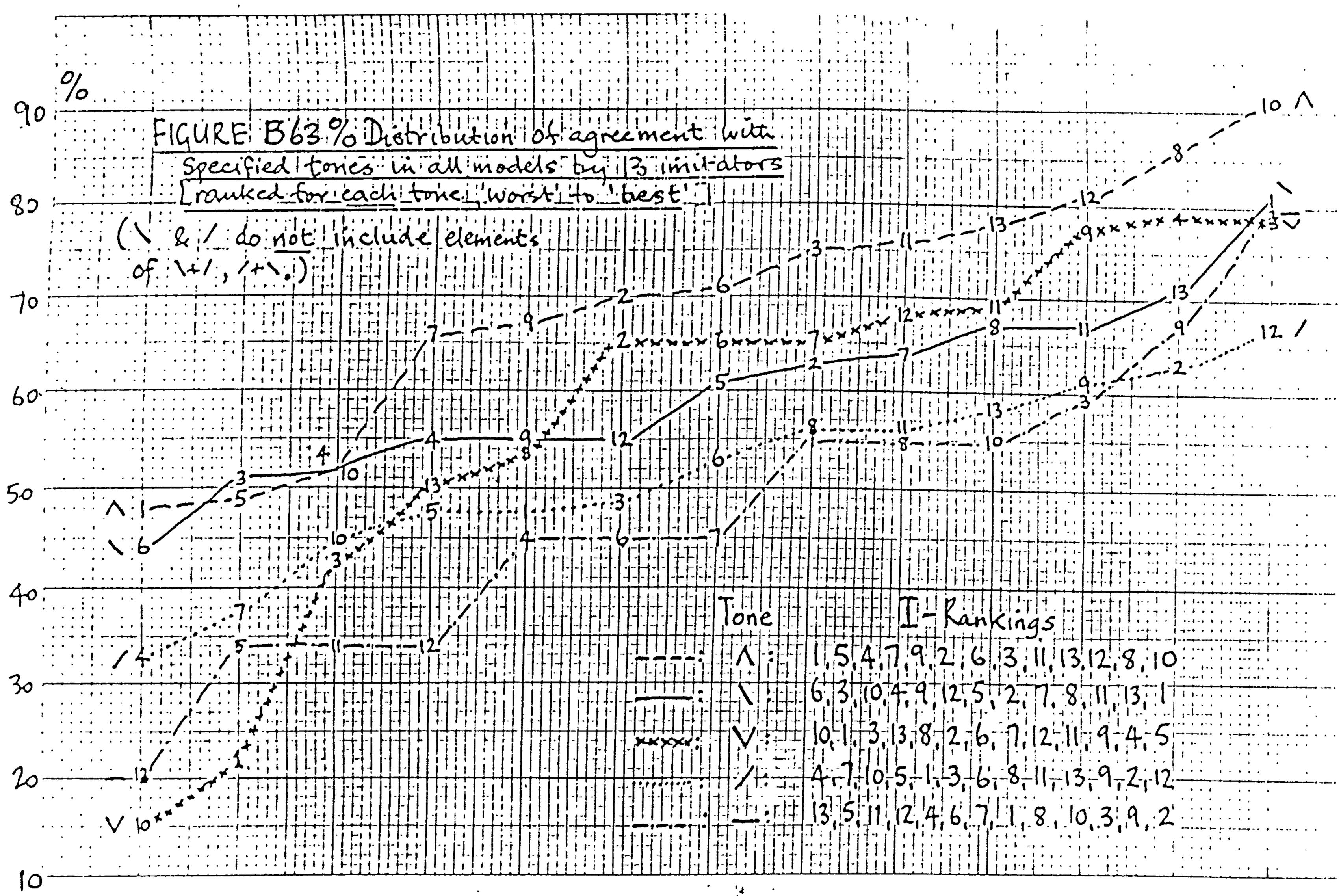


FIGURE B63 % Distribution of agreement with specified tones in all models by 13 imitators [ranked for each tone, 'worst' to 'best']

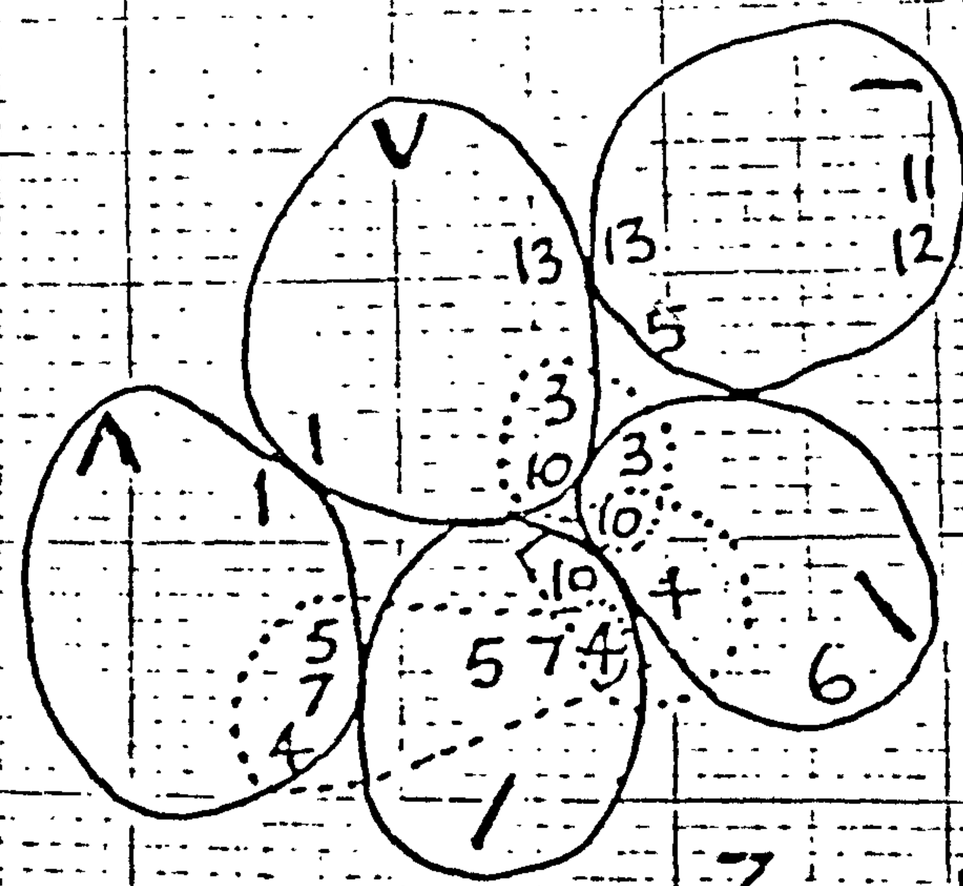
(\ & / do not include elements of \+/, /+\.)

	mean % agreement	rank on mean	range of agreement %	rank on range
^	70	1	43	3
\	61	2	37	4
V	58	3	64	1
/	52	4	34	5
—	49	5	49	2

Figure B.64 Ranked comparison of mean (%) agreement and range of agreement (%) for RF, F, FR, R, L tones

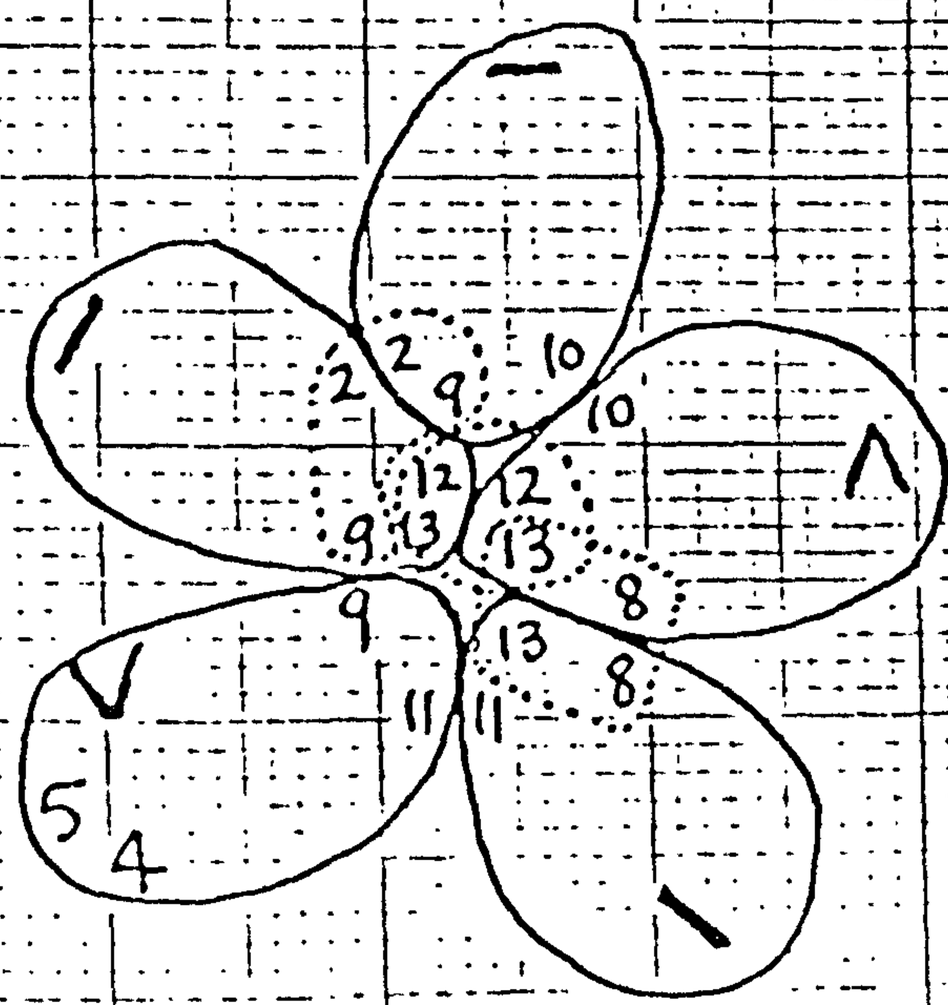
FIGURE B65 Linkages of tonic disagreements (A) (lowest 4 levels) and tonic agreements (B) (highest 4 levels).

A: Disagreements (2, 8, 9, not represented)



3 overlapping groups
(a) 5, 7, 4,
(b) 4, 10,
(c) 10, 3.

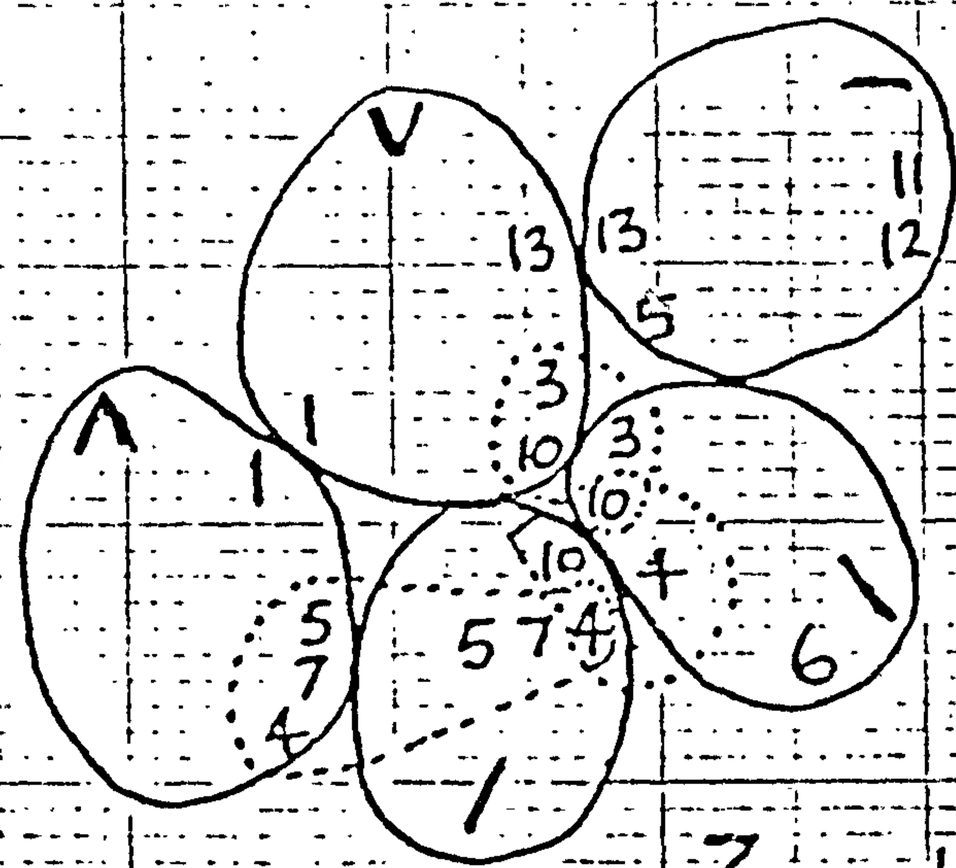
B: Agreements (1, 6, 7, not represented)



2 overlapping groups
(a) 12, 13,
(b) 13, 8.
1 simple group
(c) 2, 9.

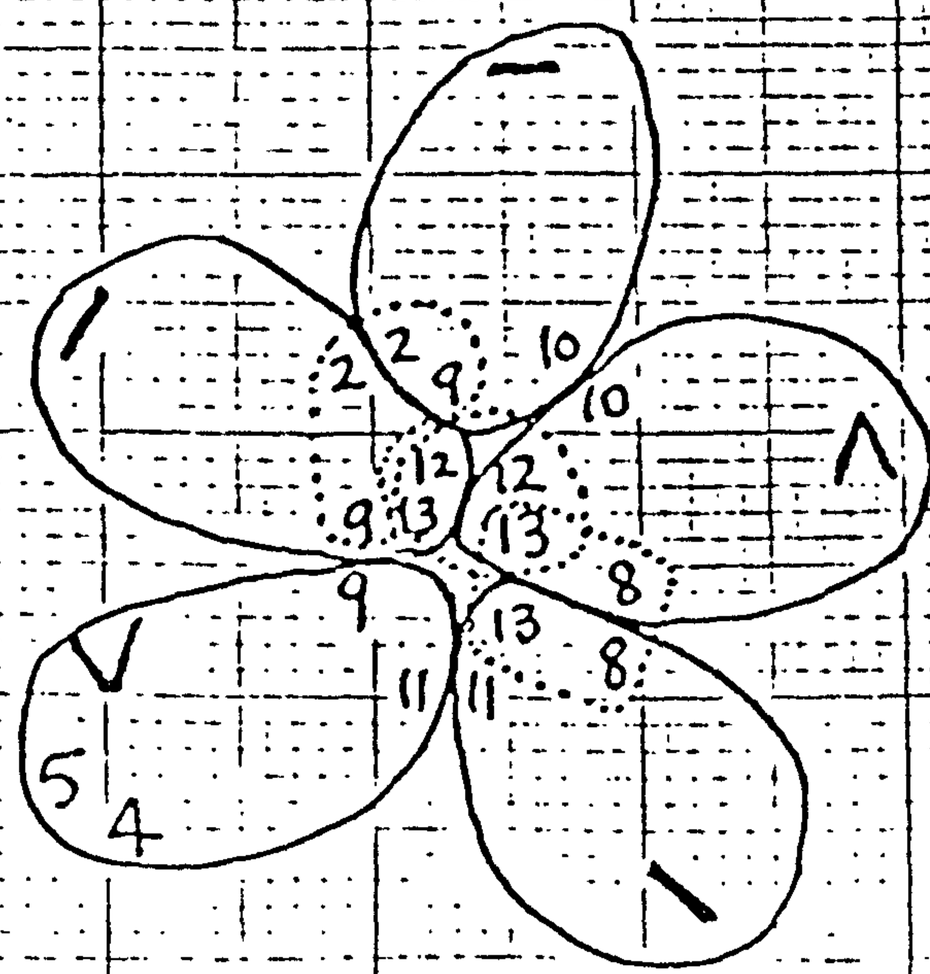
FIGURE B65 Indicator similarity in terms of tonic disagreements (A) (lowest 4 levels), and tonic agreements (B) (highest 4 levels).

A: Disagreements (2, 8, 9, not represented)



3 overlapping groups
(a) 5, 7, 4,
(b) 4, 10,
(c) 10, 3.

B: Agreements (1, 6, 7, not represented)



2 overlapping groups
(a) 12, 13,
(b) 13, 8.
1 simple group
(c) 2, 9.

'Further' ← IMITATORS → 'Closer'

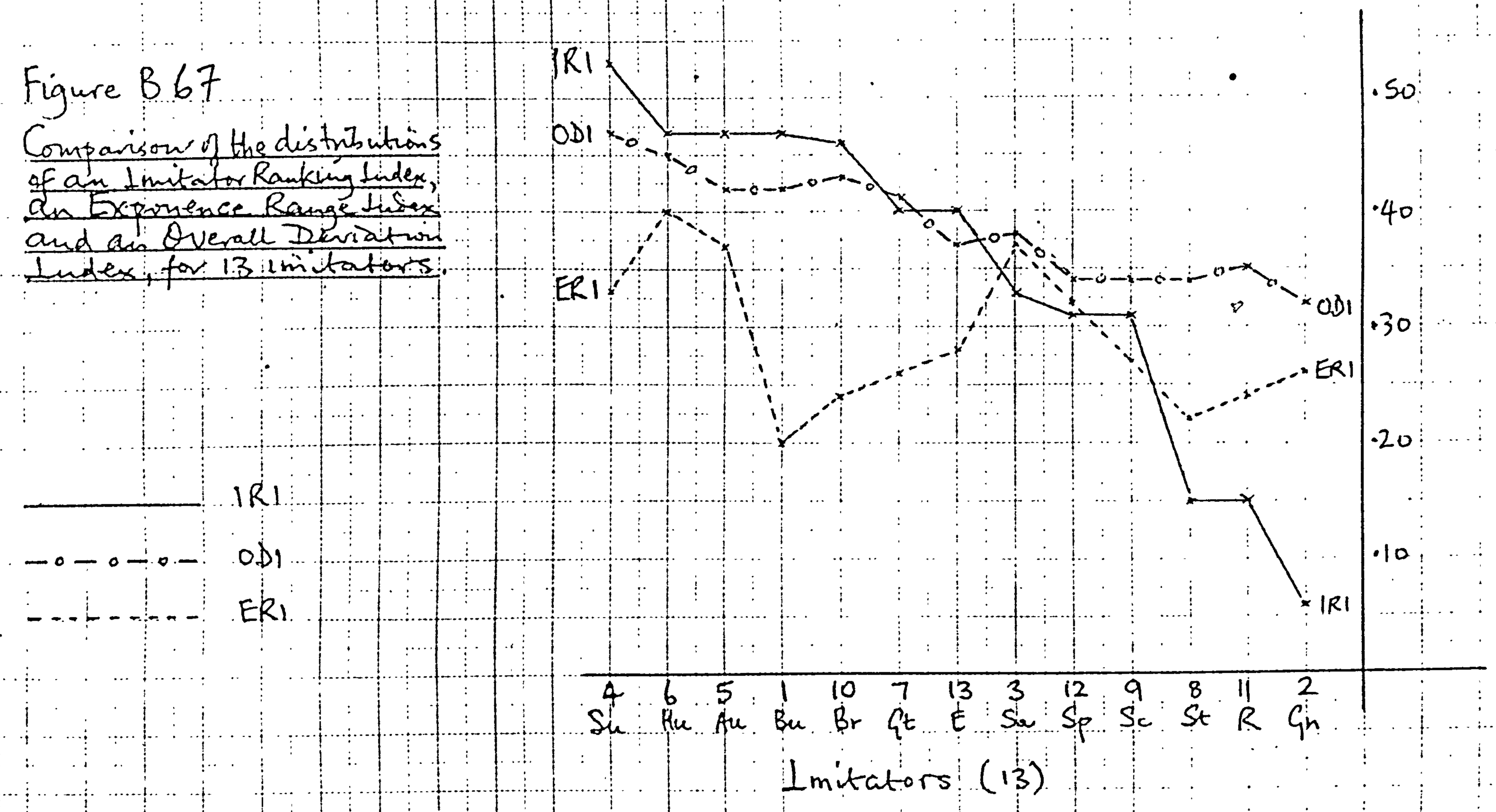
				Suth (.53) 4	Hut (.47) 6	Aus (.47) 5	Bu (.47) 1	Broo (.46) 10	Grift (.40) 7	Em (.40) 13	Say (.33) 3	Spo (.31) 12	Sco (.31) 9	Sto (.15) 8	Rit (.15) 11	Grin (.06) 2
'Harder'	Hin a	(.85)	7	.6	.7	.4	.7	.7	.5	.6	.7	.7	.4	.5	.6	.5
	Wil a	(.77)	9	.6	.5	.6	.6	.4	.7	.7	.6	.6	.5	.5	.4	.4
	Suth a	(.61)	12	.2	.5	.6	.5	.5	.6	.5	.6	.2	.6	.3	.3	.2
	Kna a	(.54)	3	.4	.5	.5	.7	.5	.6	.5	.5	.2	.2	.4	.4	.4
	Suth b	(.46)	11	.4	.9	.3	.4	.6	1.0	.6	.6	.4	.6	.3	.4	.4
	Wil b	(.46)	10	.3	.7	.5	.1	.5	.7	.3	.4	.5	.5	.4	.3	.3
	Full a	(.25)	1	.5	.4	.6	.3	–	.2	.1	.3	–	–	–	–	.2
MODELS	Hin b	(.23)	8	.3	.1	.6	.6	.6	.1	0	.2	.1	.3	.3	.4	.4
	Pow a	(.23)	5	.6	.4	.3	.5	.4	.3	.6	.4	.4	.4	.3	.3	.4
	Kna b	(.15)	4	.6	.4	.2	.2	.1	.1	.1	.1	.6	0	.4	.3	.3
	Hut b	(.15)	14	.6	.3	.5	.4	.3	.4	.4	.2	.1	.2	.2	.2	.2
	Sa a	(.15)	15	.6	.3	.3	.6	.4	.1	.2	.1	.1	.1	.2	.1	.2
	Full b	(.12)	2	.4	.8	.4	.1	–	.2	.2	.4	–	–	–	–	.3
	Pow b	(.08)	13	.6	.2	.4	.3	.3	.3	.3	.2	.3	.2	.2	.4	.2
'Easier'	Hut a	(.08)	6	.4	.1	.1	.4	.3	.3	.4	.4	.2	.4	.4	.5	.4

Figure B66 Ranking of imitators (on proximity to all models) against ranking of models (on difficulty for all imitators) showing an index of tonic alteration.

(Index ranges from 0 (complete agreement with model)
to 1.0 (complete disagreement with model).)

Figure B 67

Comparison of the distributions of an Imitator Ranking Index, an Experience Range Index and an Overall Deviation Index, for 13 imitators.



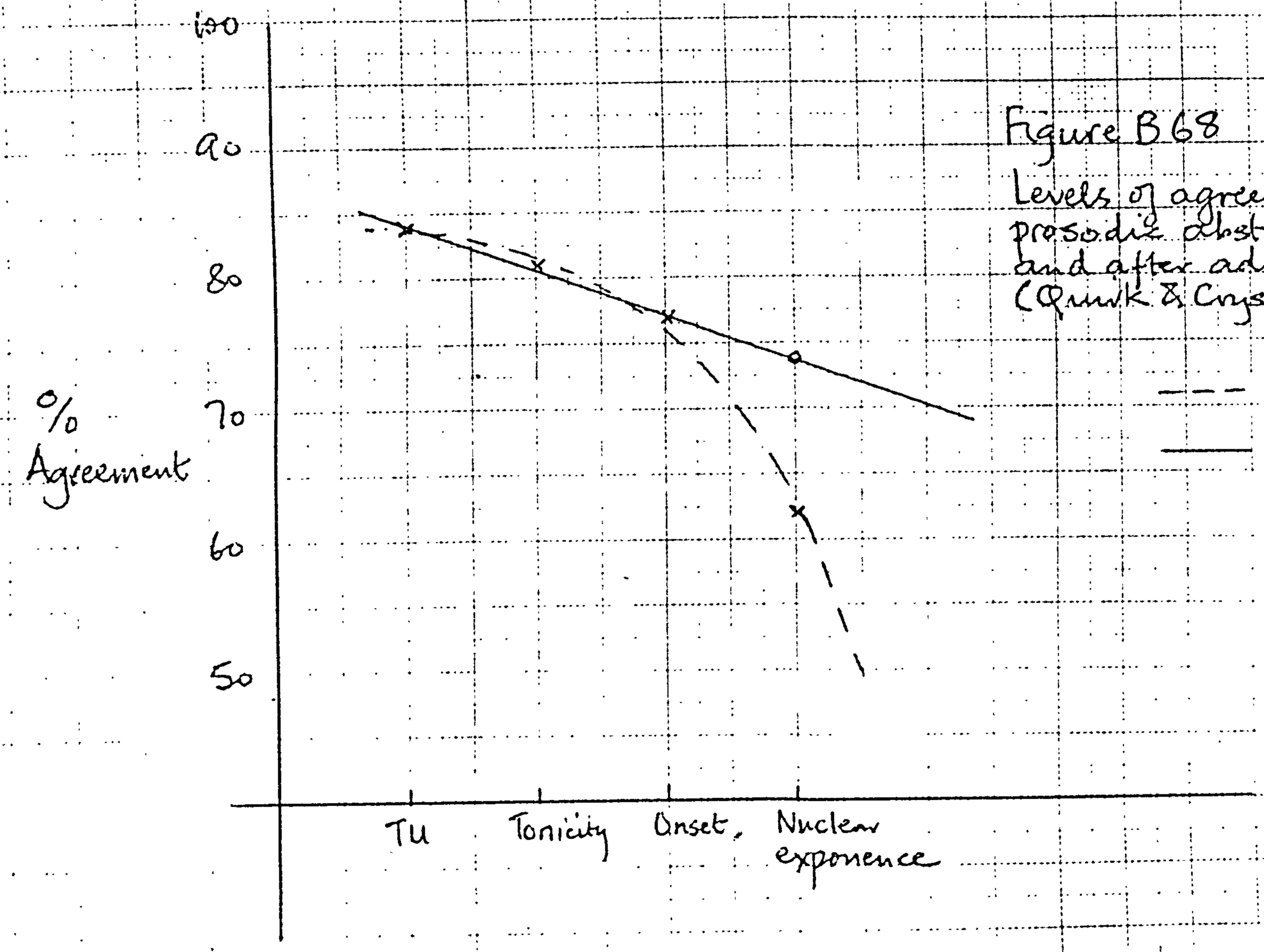


Figure B68

Levels of agreement with four prosodic abstractions before and after adjustment (Quirk & Crystal 1966: 362-3).

Models	N_I	TU	rank	TC	rank	ON	rank	EX^t	EX^a	rank
QC	(46)	85	1	82	2	77	3	62	74^x	4
1	(8)	80	3	91	1	81	2	59	77^1	4
2	(8)	77	3	95	1	75	4	75	85^2	2
3	(13)	96	1	90	2	80	3	61	79^3	4
4	(13)	90	3	97	1	95	2	70	88^4	4
5	(13)	96	2	100	1	96	3	60	87^5	4

Figure B69 : % Comparison between agreements on tone unit, tonicity, onset, true and adjusted exponence in imitators of 5 models and in Quirk & Crystal (1966).

B69A

Notes on exponence adjustment (EX[a]) – for Fig. B 69
(I realisations counted as if they were M realisations):-

	M	I	
x	Λ	:\	(oh)
1,2	Λ	:\	(oh)
	\+/N	\+ –	(slowly said)
3	,/N	,–	(later)
		V	
	,–	,\N	(slowly)
	\+/	V	(wasn't you)
4	,/	V	(later)
	:\	Λ	(slowly)
	(\)/N	,–	(said)
	,Λ	,/	(you)
5	,/N	,–	(later)
		VN	
	,\N	,–	(came)
	/N	:–	(said)
		–	
	Λ	!(:)\	(oh)
	;Λ	,(;)/W	(you)
	,VN	,\	(slowly)

Figure B70

Comparison between agreements on tone unit, tonicity, onset and tone (—) and adjusted (- - -) nuclear exponence in Quirk & Crystal (1966) and five other models. (Picture of Fig. B69).

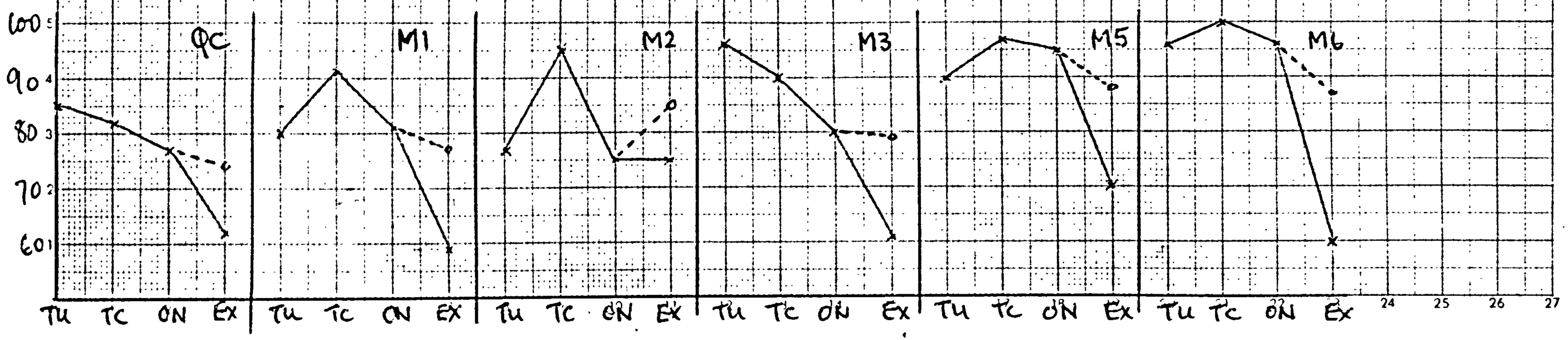
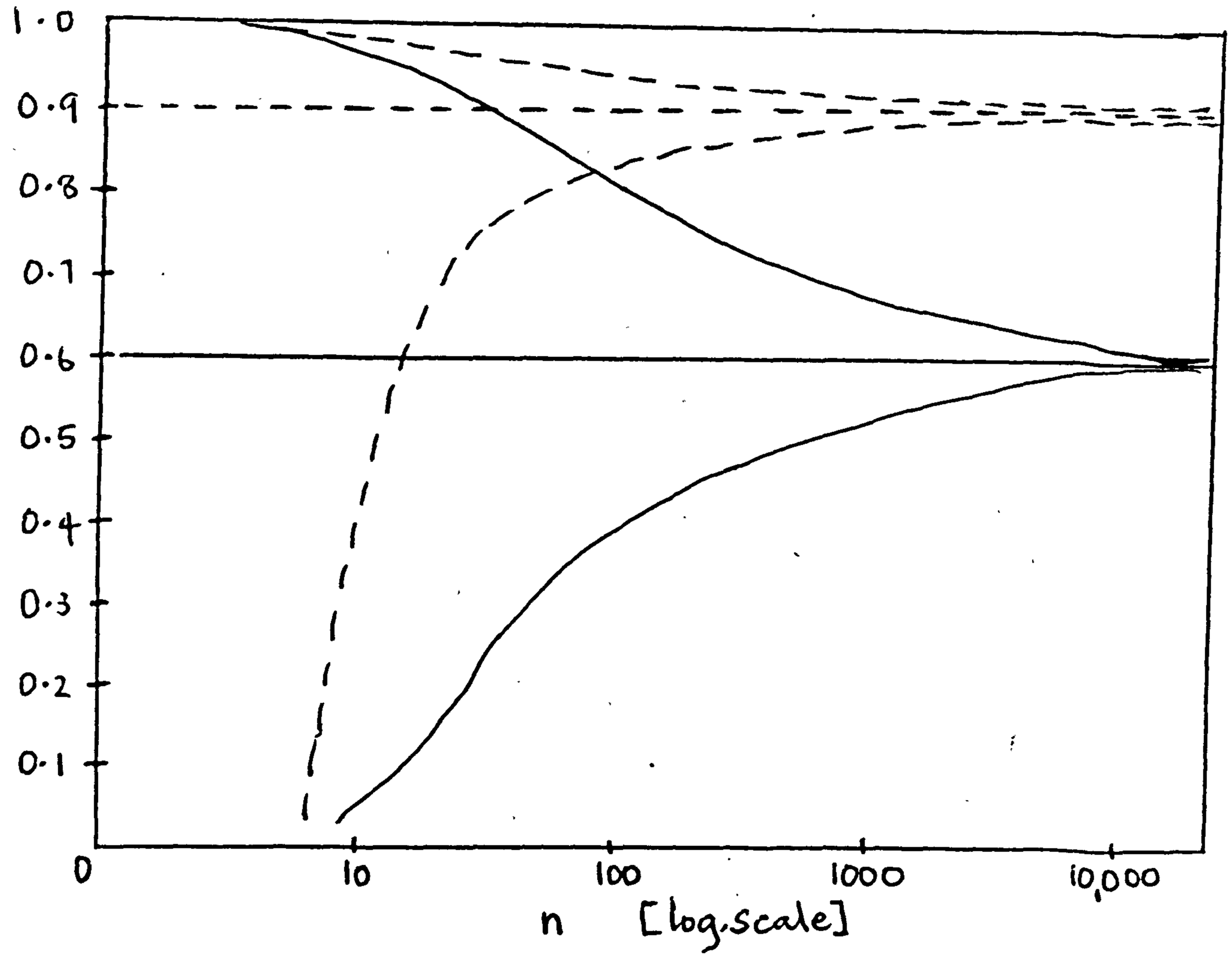


Figure D1



95°/o confidence limits for correlation coefficients of 0.9 and 0.6 plotted against n, the number of characters on which they are based (Sokal and Sneath 1963, p.115).

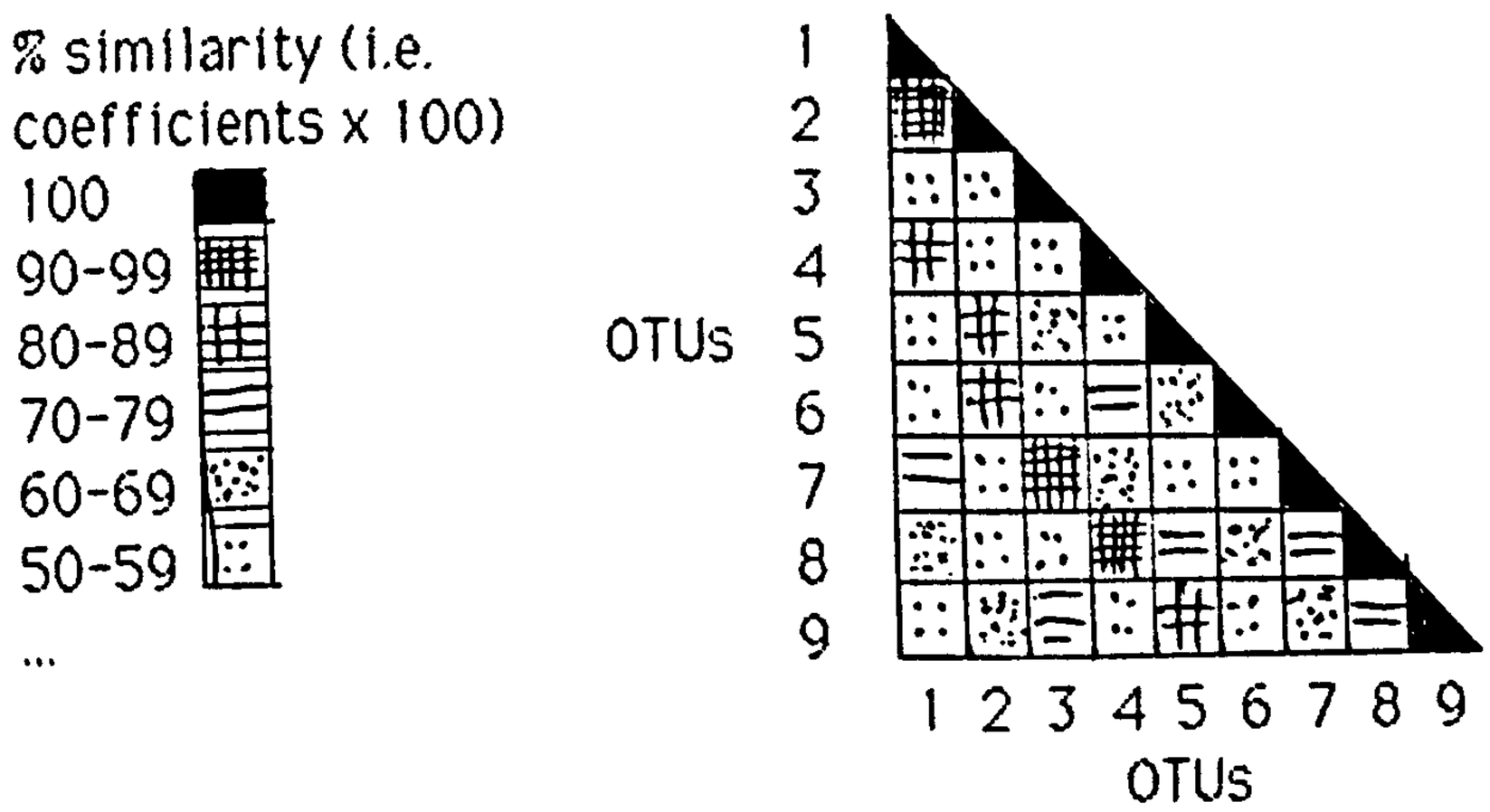


Figure D1a: A differentially shaded triangular matrix giving juggleable groups.

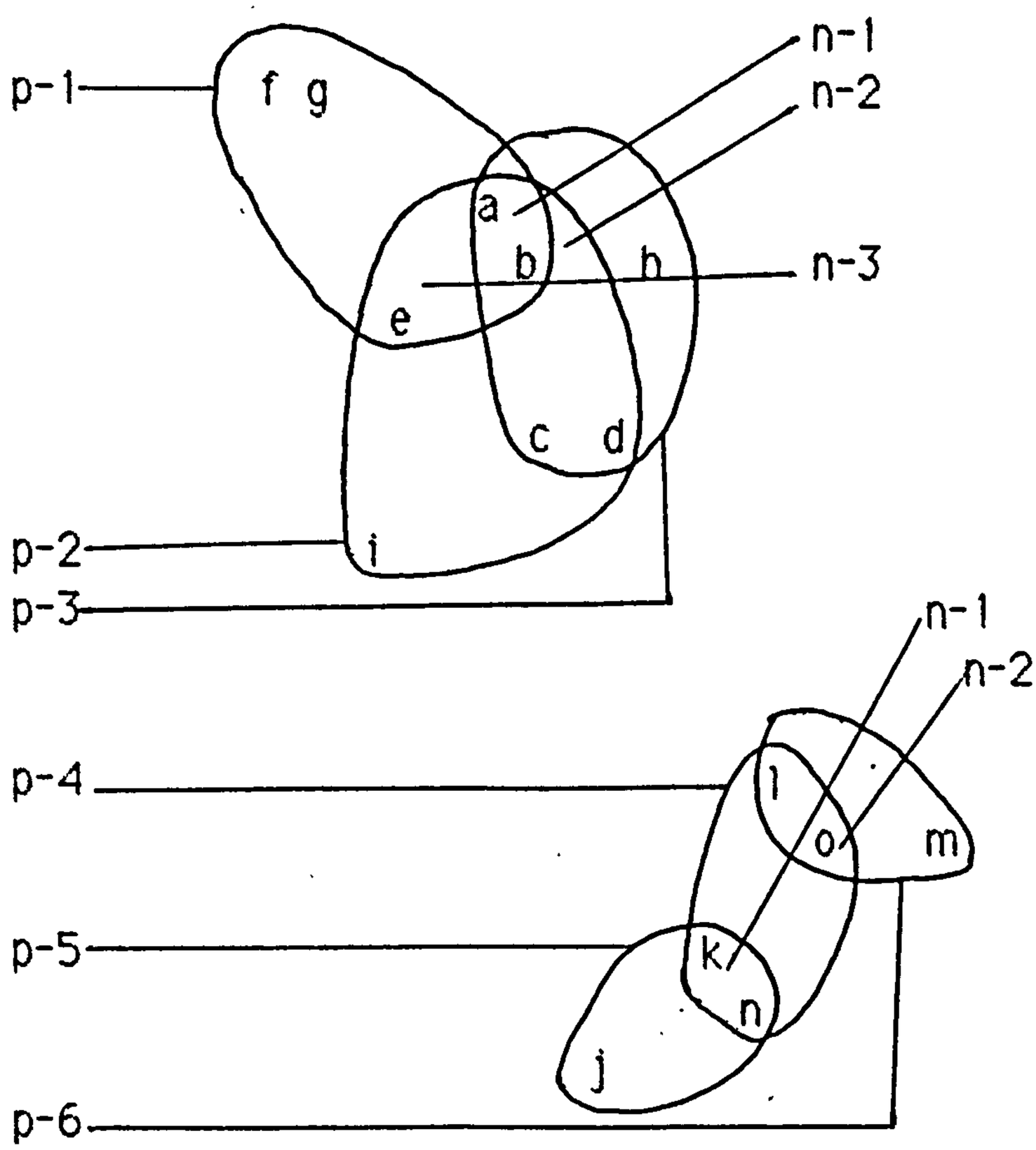
Figure D2

Linkage matrix for 15 OTUs.

	a	b	c	d	e	f	g	h	i	j	k	l	m	n	o
a	1	1	1	1	1	1	1	1	1						
b	1	1	1	1	1	1	1	1	1						
c	1	1	1	1				1	1						
d	1	1	1	1				1	1						
e	1	1			1	1	1								
f	1	1			1	1	1								
g	1	1			1	1	1								
h	1	1	1	1				1							
i	1	1	1	1					1						
j										1	1			1	
k										1	1	1		1	1
l											1	1	1	1	1
m												1	1		1
n										1	1	1		1	1
o											1	1	1	1	1

Figure D3

Phenomenal (p-) and nuclear (n-) clusters from the matrix of Fig. D2.

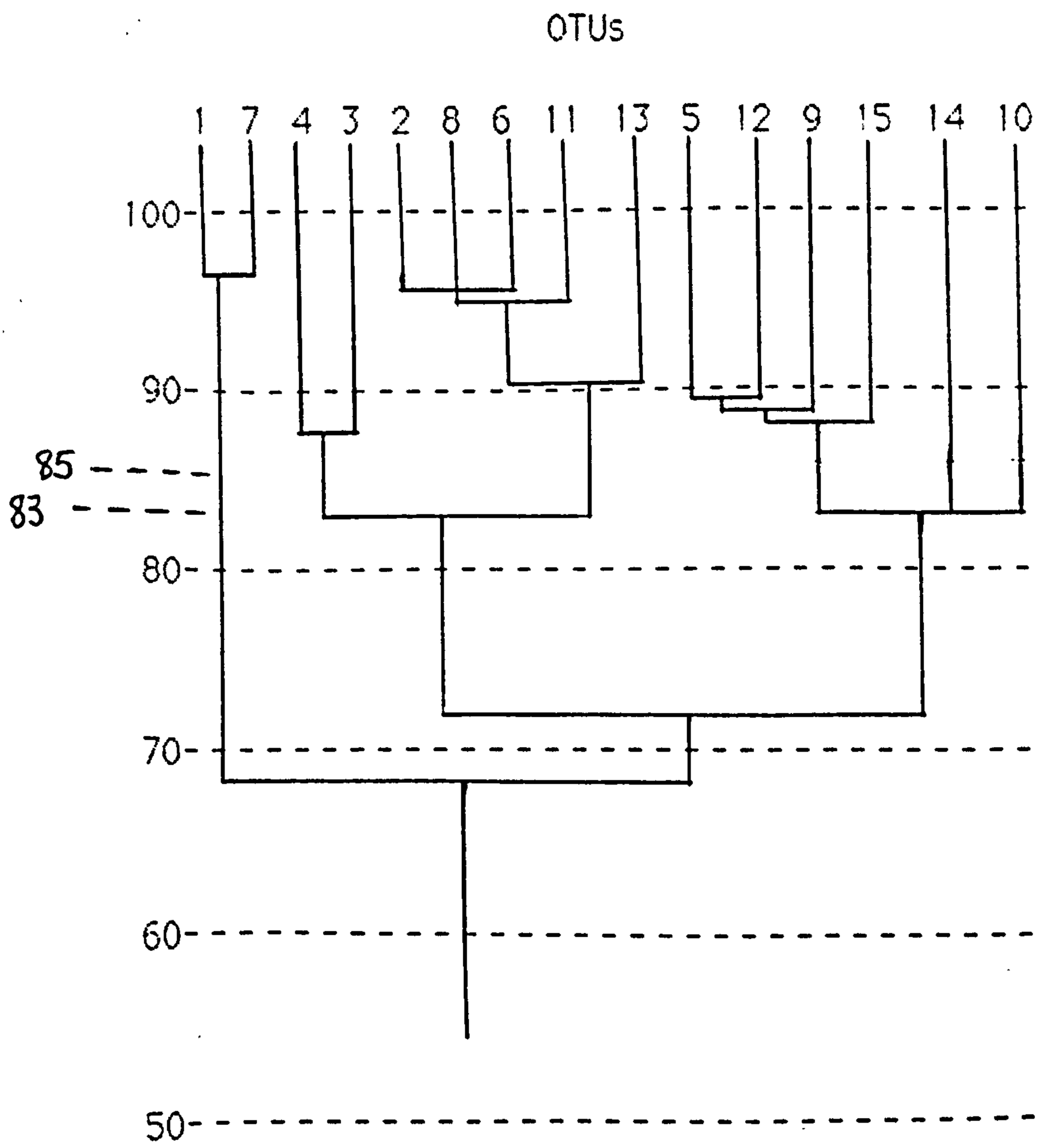


n-clusters

a b	(3 p-)	k n	(2 p-)
(a b) c d	(2 p-)	l o	(2 p-)
(a b) e	(2 p-)		

Figure D4

A simple dendrogram



WAR WHIT
CRAI WEIG
GAR HED SAV
GRAY THUR
BRU

MCC STE
ARK DIX
HEA LOW

FIN CLA
ARL MUL PHI
HAL HEW THO
CAM
WIL

BOY
ARN ELL
TUR DRU
MIL NAY
MAR

JAM
SUG

FRE

ALD FOR
NOR GRAH
AND NIC
ORM TEA

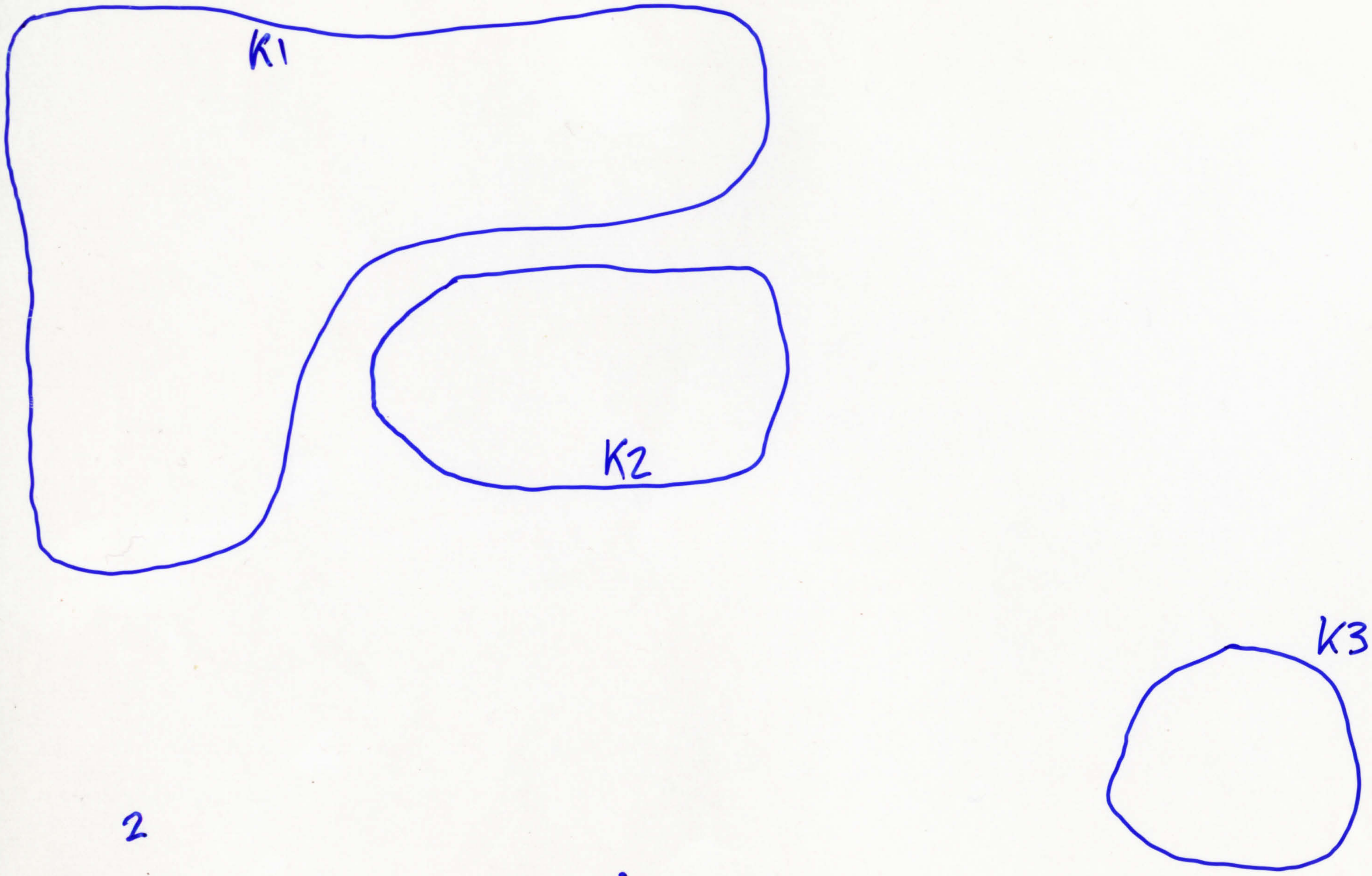
XFUL
XLAW XSHI
XSPRI XSHAN
XNON
XWAIT

1

Figure A10: Transparency 1: sample of clumped informants (after Jones 1978).

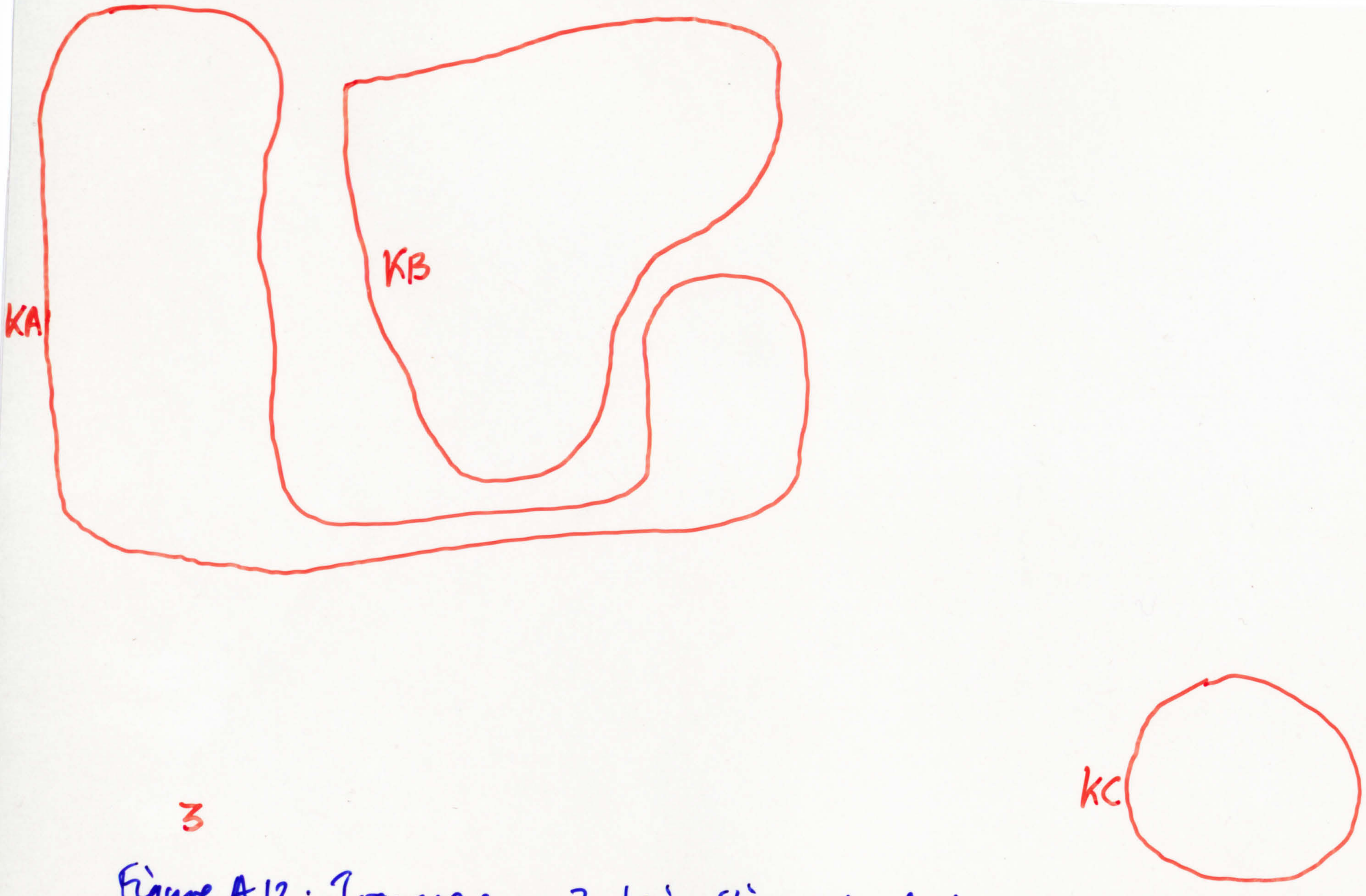
4.

Figure A 13: Transparency 4: Linguistic variety clusters - Subspace 3 (after Jones 1978).



2

Figure A11: Transparency 2: Linguistic variety clusters - Subspace 1 (after Jones 1978).



3

Figure A12: Transparency 3: Linguistic variety clusters - subspace 2 (after Jones 1978).

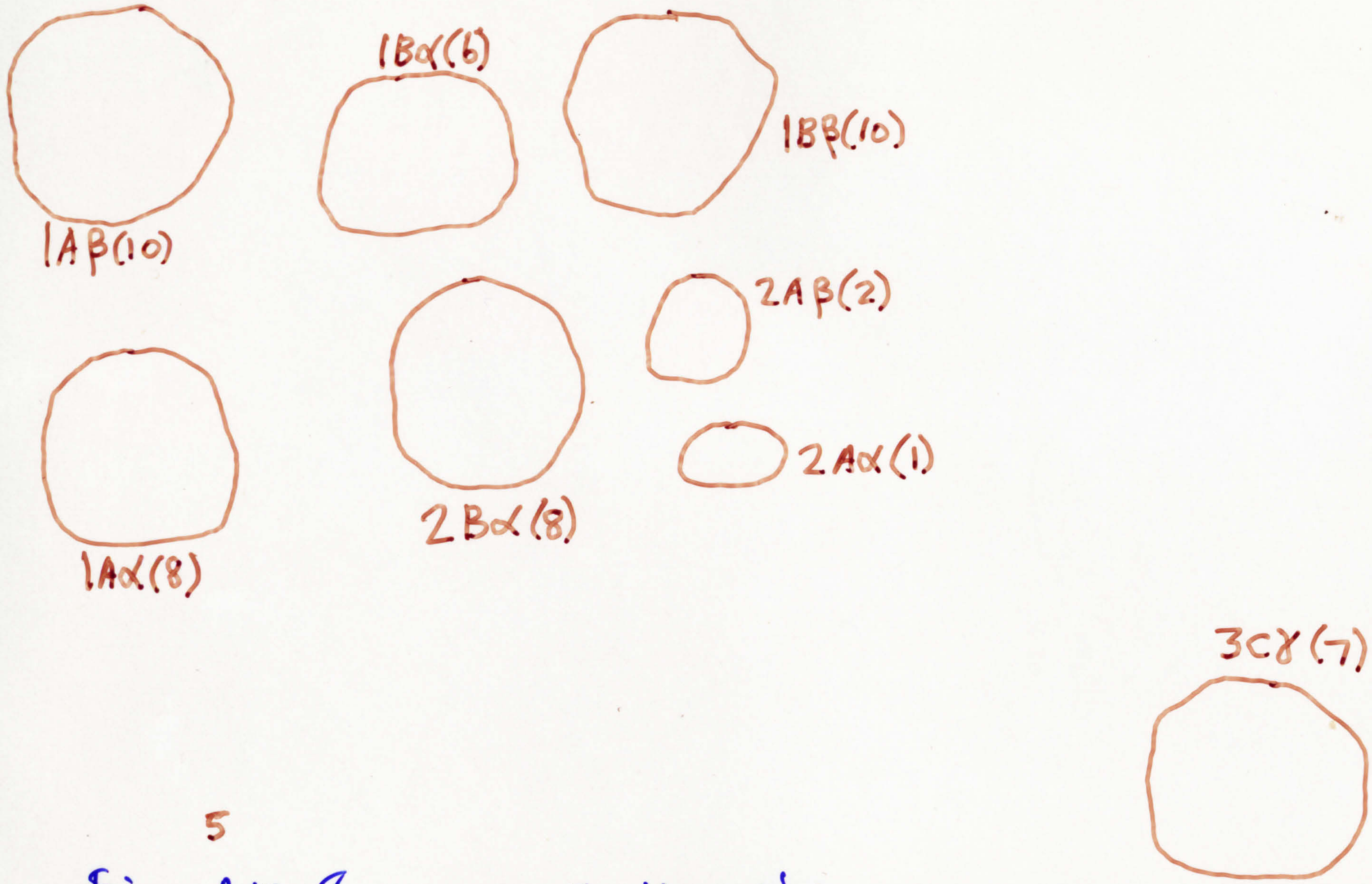
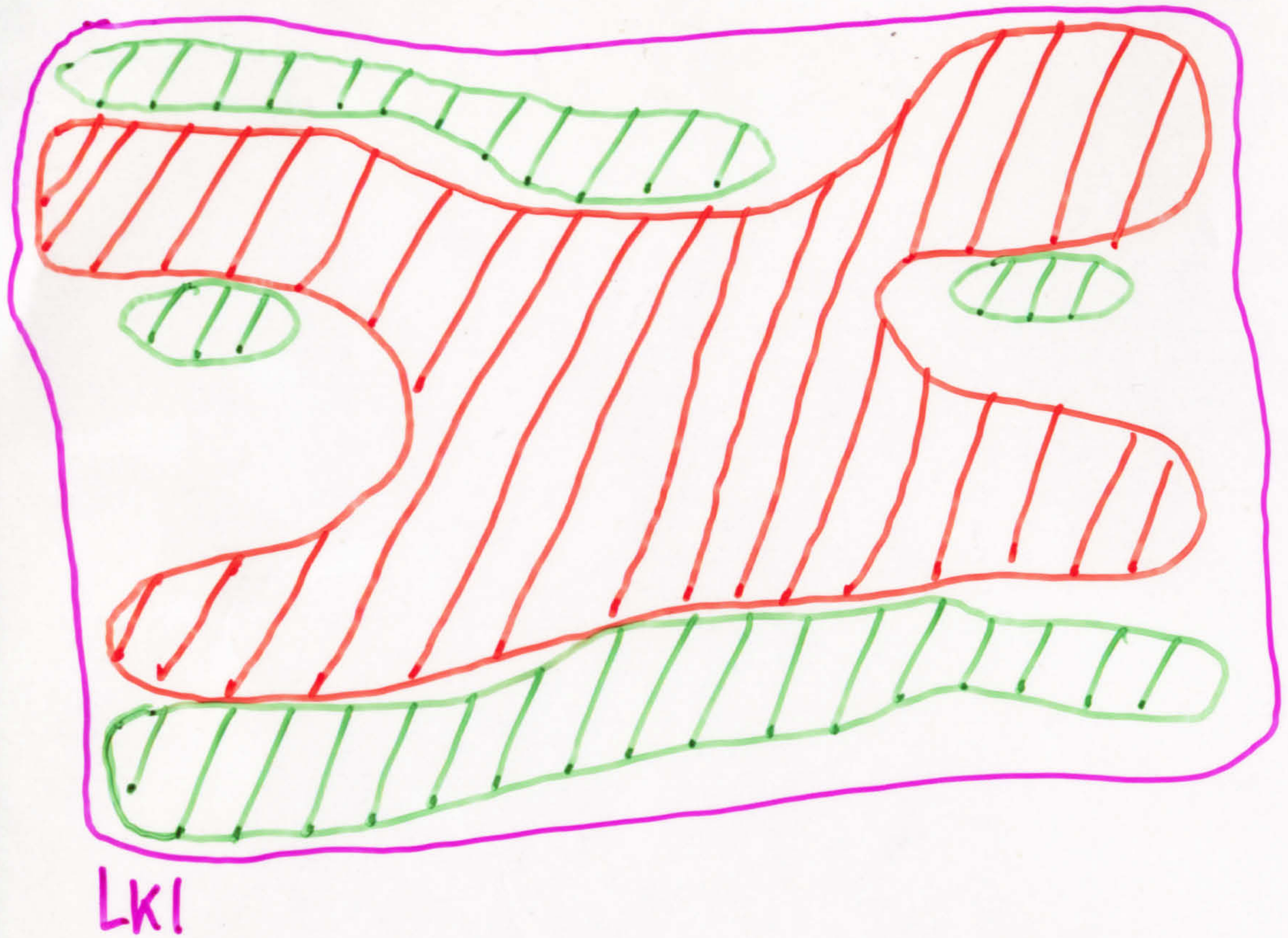


Figure A14: Transparency 5: 'Derived' clusters - superimposition of A11, A12, & A13 (after Jones 1978).

6

Figure A15: Transparency 6: Distribution of social clusters across linguistic clusters (after Jones 1978).

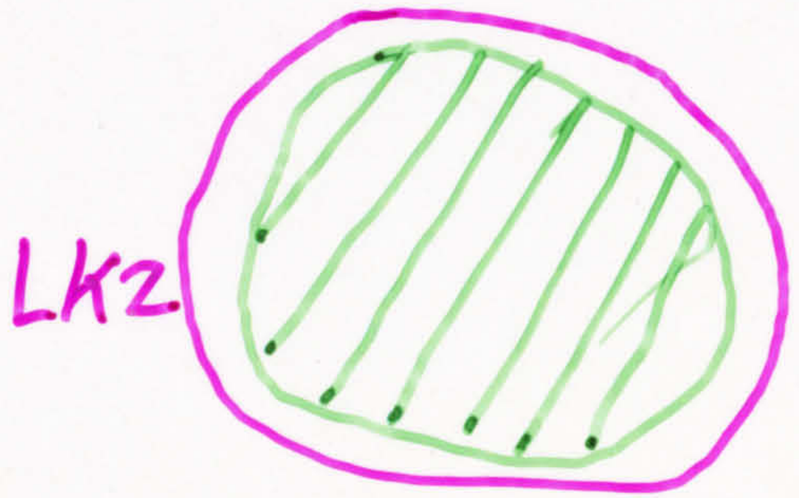


LK1 (Gateshead) = KA + KB
= K1 + K2
= Kα + Kβ

LK2 (Newcastle) = KC
= K3
= Kγ

//// Sock x

//// Sock y
+ Sock z



7

Figure A17: Transparency 7: Overlay of social classification (at 2K level) on linguistic classification (at 2K level) (after Jones 1978).

100

Figure B53: Boosted Fs, % Fs etc
Gps I, II, III.

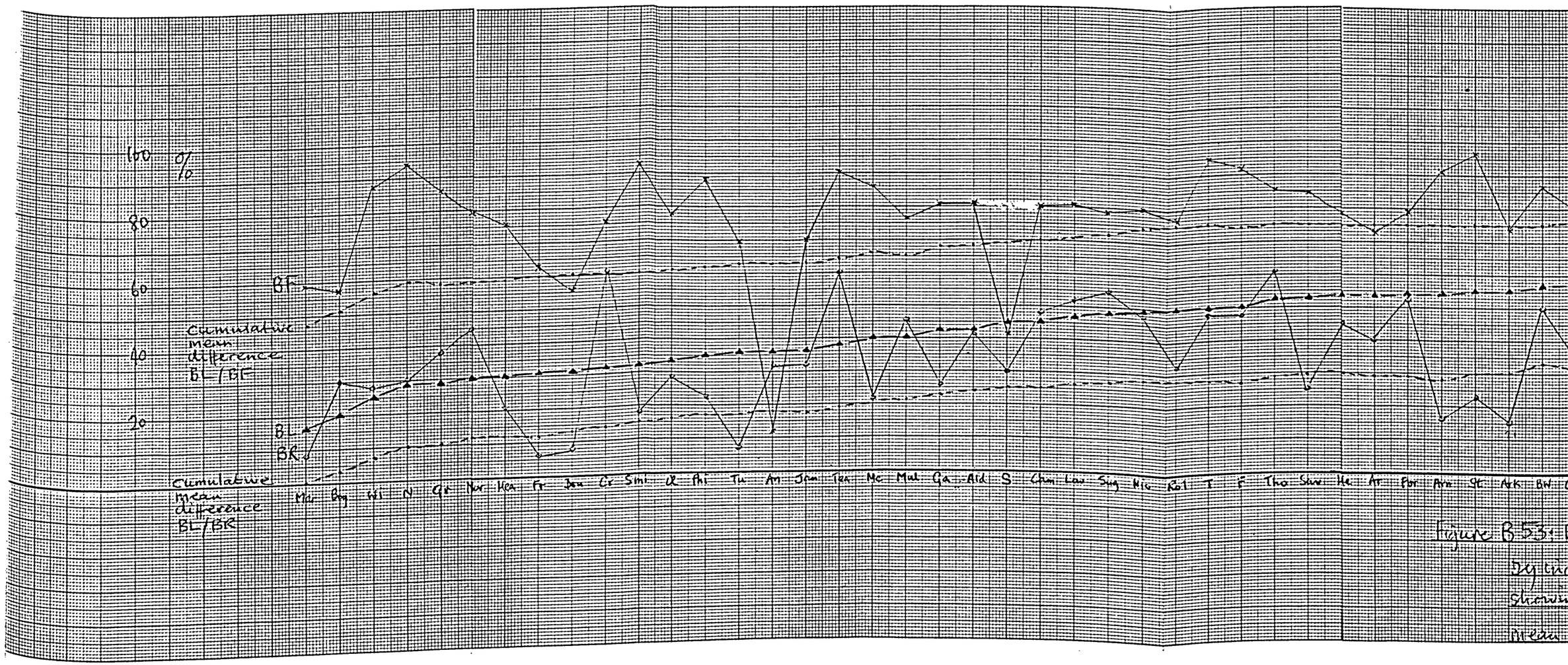


Figure B53: [illegible]
Dy[illegible]
Shown[illegible]
Mean[illegible]

Figure 100 B53 : Boosted Fs, % Fs etc
Gps I, II, III.

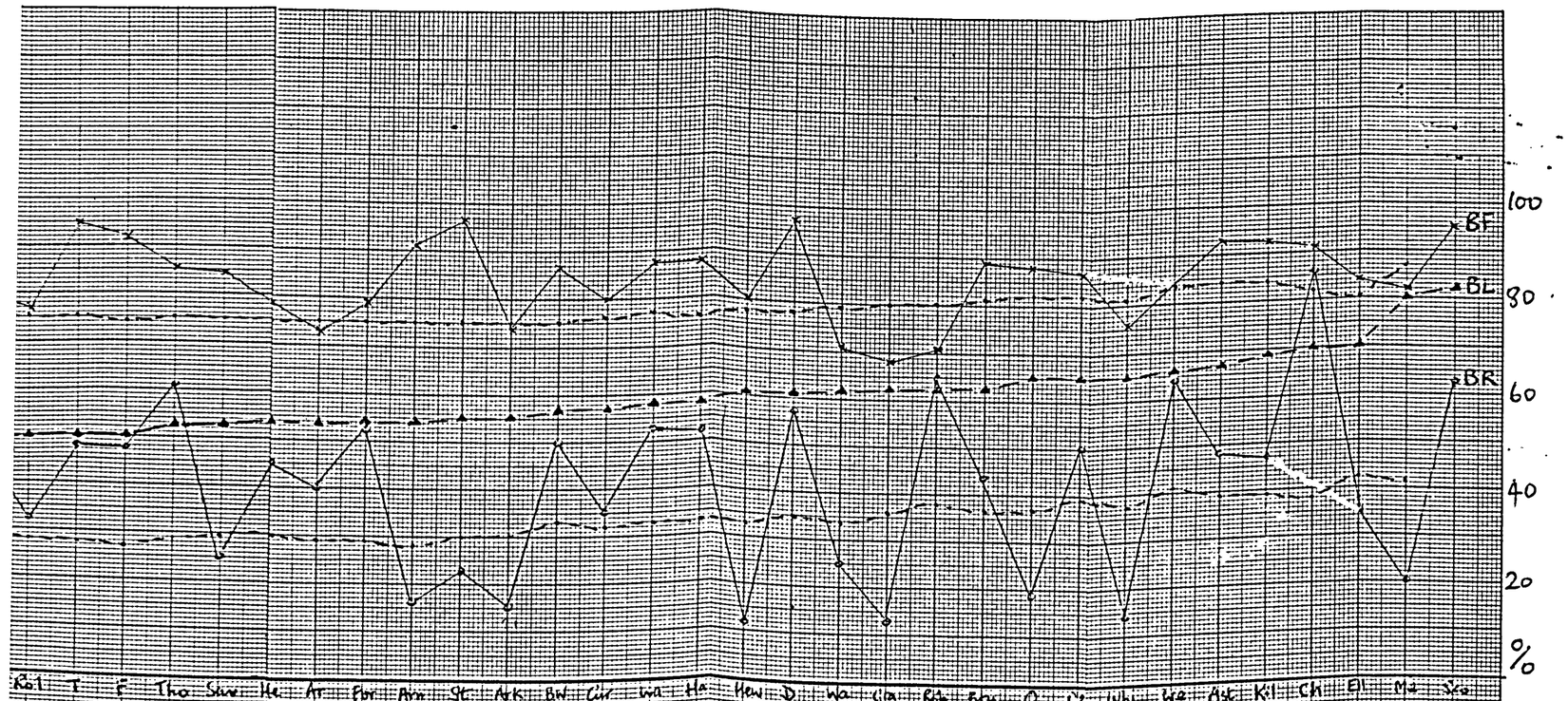


Figure B53: Boosted Fs, % Fs; boosted Ls, % Ls; boosted Rs, % Rs; by individual for Gps I, II, III, ranked on BL, and showing the BL/BF (top) and BL/BR (bottom) cumulative mean differences.