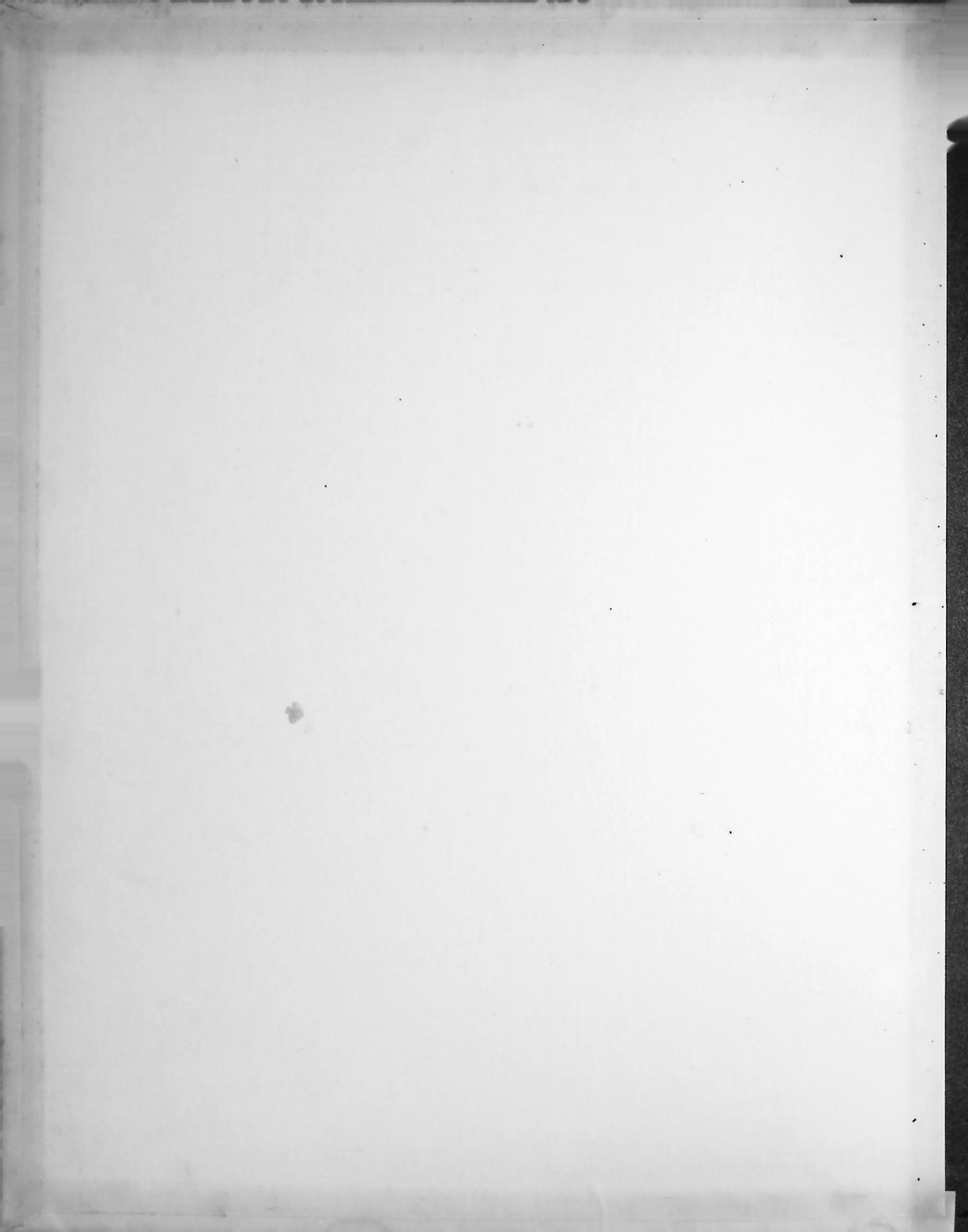


AN ATLAS
OF INFANT
BEHAVIOR





Conducts (Psychic) - Atlas

BF80.9
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1934

AN ATLAS OF INFANT BEHAVIOR

A SYSTEMATIC DELINEATION OF
THE FORMS AND EARLY GROWTH
OF HUMAN BEHAVIOR PATTERNS

IN TWO VOLUMES

ILLUSTRATED WITH 3,200 ACTION PHOTOGRAPHS

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BEHAVIOR SITUATION
RING AND STRING

19.25 seconds

4 phases

Normative Series

Age: 28 weeks

Child: G48

Seconds



- A 2.25 ¶ Regards Examiner's hand adjusting string. Leans to the left. Holds left hand semi-flexed at table edge. Reaches toward string with outstretched right hand; pronates hand on table top. Examiner presents ring in far median position, string extending to standard line in right oblique position. 2.25 Regards string. Lifts and adducts right hand 2 inches on table top. 3.25 Shifts regard to Examiner. Lowers left hand below table top.



- B 3.75 Regards ring. Adducts and pronates right hand on table top; slides hand 4 inches to the right; lifts hand and lowers to table top. Regards right hand. Cups right hand on table top.



- C 6.5 Regards string, then ring. Lifts and adducts right hand; lowers to table top; extends arm and pushes against table top. Begins to fuss slightly. Regards table top at left, then Examiner. . . 10.5 Examiner moves ring and string nearer, string right oblique. Regards ring. Slides right hand slightly to the left and spreads fingers; extends arm; relaxes. 12.75 Regards Examiner. 13.75 Lifts head and continues to regard Examiner. . . 14.25 Examiner places string in median alignment. Contacts Examiner's left hand with right hand. Regards Examiner's right hand. Places right hand over string and brushes it to the right. Regards ring. 16.0 Lifts right hand and makes a loop approach toward ring.



- D 16.25 Continues to regard ring. Pronates right hand on table top. 17.25 Regards Examiner. Begins to fuss. Slides right hand to the right, spreading fingers on table top. (19.25 sec.)



Seconds



- E 31.0 *Demonstration of bell ringing by Examiner.* Regards bell, Examiner, then bell. Pronates both hands on table top. Approaches bell with left hand before Examiner withdraws hand. 33.0 Grasps bowl and lifts to chest level. Transfers to right hand, grasping end of handle.



- F 34.75 Rings bell once; lifts to crown level. Holds left arm partially flexed, hand lifted to shoulder level.



- G 37.25 Lowers bell to eye level; grasps bowl with left hand, inserting thumb into bowl; rotates bell to horizontal position. Regards clapper. Releases right hand and adaptively re-grasps handle.



- H 38.25 Rings bell five times, waving left hand synchronously. Regards table top; then Examiner. (40.75 sec.)

BEHAVIOR SITUATION

BELL

40.75 seconds
8 phases

Normative Series

Age: 56 weeks

Child: B34

Seconds



- A 2.75 \int Regards incoming bell. Pronates both hands on table top. Lifts and lowers left hand. 2.0 Examiner places bell in standard median position. Tips bell 30 degrees right with left index and middle fingers; 2.75 grasps end of handle; rotates bell 150 degrees left to chest level.



- B 4.75 Plucks clapper with right thumb and index finger. 6.75 Rotates head 45 degrees left, shifting regard to Examiner; rotates head back to median position, shifting regard to bell. Tips bell 30 degrees backward while replacing it on table top; releases left hand from handle. Rests right hand on table edge.



- C 9.5 Re-grasps end of handle with left hand; extends bell to Examiner, turning wrist from pronate to supine position. 11.5 Rotates head 45 degrees left. Regards Examiner; then bell.



- D 14.5 Arches back and lifts bell to crown level in further extension to Examiner. Regards Examiner. 18.25 Carries bell within rail. Regards bell. 19.5 Replaces bell on table top. Rotates head 30 degrees right. Contacts bowl twice with left thumb and index finger; grasps junction and bowl; lifts bell, rotating to horizontal position. 24.0 Manipulates clapper with right fingers; transfers to right hand; 28.0 rings bell five times.

Seconds



- E 22.75 First demonstration of bell ringing by Examiner. Holds both hands below table top. Listens intently as Examiner rings bell. Regards bell, surroundings ahead, then bell.



- F 25.75 Grasps handle promptly with right hand; lifts bell to chest level, grasping junction and bowl with left hand. Rotates right palm from inverted to pronated position, using tip of handle as pivot.



- G 27.75 Adaptively re-grasps handle with right hand. Releases left hand.



- H 29.25 Rings bell responsively and vigorously six times, waving left hand synchronously. Regards table top, Examiner, then table top. (31.75 sec.)

BEHAVIOR SITUATION

BELL

31.75 seconds
8 phases

Normative Series

Age: 52 weeks

Child: G48

Seconds



- A 1.0 ¶ Regards incoming bell. Holds right hand against chest, left hand against trunk at level of diaphragm. 1.0 Approaches bell with right hand; encircles fingers around handle as *Examiner places bell in standard median position*. 2.5 Lifts bell, waving it gently at mouth level.



- B 4.25 Holds bell horizontally and approaches clapper with well defined extension of left thumb and index finger. Regards clapper. Manipulates clapper with left fingers. Rotates head 60 degrees left, trunk 30 degrees left. Regards platform. 12.0 Drops left hand below table top. Rotates head and trunk forward. Turns bell to vertical position. Regards bowl. Rings bell vigorously twice, waving left hand synchronously.



- C 15.25 Transfers bell, grasping tip of handle deftly with left thumb and index finger. Regards handle. Secures grasp by pressing tips of left fingers on handle. Regards surroundings at left. Rings bell twice; waves left hand synchronously. Rotates head 45 degrees left to regard Examiner. Holds bell poised at mouth level, fistled right hand at chest level.



- D 18.75 Rings bell four times, holding bell vertically. Lifts right hand to crown level; contacts tip of handle with right thumb and index finger. Extends left index finger. Rotates head 15 degrees right, shifting regard to bell. 22.0 Grasps bowl with right hand. Rotates left wrist to contact tip of handle with volar surface of index finger.

Seconds



E 24.0 Pokes clapper with right index finger. Rotates bell to inverted position, lifting to mouth level. 26.75 Curls right fingers around back of left hand.



F 28.0 Releases right hand; extends left fingers. Transfers bell to right hand and rings. Regards table top. 30.25 Poises bell obliquely, bowl up. Regards surroundings ahead; then table top. Rings bell vigorously; waves fist with left hand. . . . Third demonstration of bell ringing by Examiner. 43.5 Grasps handle with right hand. Transfers to left hand. Regards clapper and pokes it with right fingers; rotates bell inward. Regards bowl. 47.0 Rotates bell 260 degrees inward and transfers to right hand, grasping handle. Digs vigorously at clapper with left hand. 51.0 Regards surroundings at right, rotating trunk 45 degrees. Pushes bowl back and forth twice on table top. Regards bowl.



G 54.5 Pivots trunk 75 degrees right and carries bell 5 inches back of table top. Regards platform. Returns bell to table edge. Regards bowl. 56.75 Transfers to left hand; lowers bell to table top 2 inches right of midline.



H 58.0 Drags bell 5 inches left; stops with a jerk; continues to drag bell 3 inches farther left. Flexes right fingers on table top. 59.0 Transfers to right hand; inverts bell 2 inches above table top; inserts left fingers into bowl. Regards surroundings at right. (60.5 sec.)

BEHAVIOR SITUATION

BELL

60.5 seconds

8 phases

Normative Series

Age: 48 weeks

Child: G48

Seconds



- A 1.0 \int Regards incoming bell. Rests right hand on trunk at level of diaphragm, left hand on table top. 1.0 Lifts both hands and approaches bell bilaterally. 1.75 Grasps bowl with both hands as Examiner places bell in standard median position.



- B 3.0 Rotates bell 115 degrees inward with right hand; lifts to chest level; manipulates clapper with left thumb and index finger. 8.5 Scratches left side of trunk with left fingers.



- C 9.25 Flexes left fingers and again manipulates clapper. 12.25 Transfers to left hand and inserts right index finger into bowl. 15.25 Transfers to right hand; bangs handle on table top twice. Waves left hand. 17.25 Rotates bell 145 degrees left; grasps bowl with left hand; lowers bell with both hands, end of handle contacting table top. . . . 20.0 Lifts inverted bell to chest level, then to crown level. Regards bell; then surroundings at left.



- D 23.25 Rotates bell 80 degrees right and approaches clapper with extended right index finger. Regards clapper.

Seconds



- E 21.0 Rings bell, lifting right hand to eye level; waves left hand synchronously. Regards surroundings ahead.



- F 21.25 Rings bell, lowering hand 2 inches above table top. Again rings bell.



- G 21.5 Pokes rim of bowl with extended left index and middle finger. Regards bell. Grasps circumference of bowl with left hand, rotating bell 145 degrees left. Regards clapper. Slaps handle twice with right hand while waving bell vertically. Regards handle. Waves bell horizontally. 24.75 Strikes end of handle on table three times, contacting clapper with right index finger.



- H 25.5 Lowers end of handle to table top. Regards clapper. Grasps rim of bowl with right hand. Inserts left thumb into bowl. (27 sec.)

BELL

27.25 seconds

8 phases

Seconds



- A 0.25 ¶ Regards incoming bell. 0.25 Holds left arm semi-flexed, hand partly opened at shoulder level. Approaches bell with pronated right hand during presentation. Rotates trunk 20 degrees left.



- B 1.75 Grasps end of handle before Examiner places bell in standard median position; withdraws bell from Examiner's hand with a sudden movement and carries it to ear level; lowers to chest level. 4.0 Transfers to left hand; waves bell in a rotary manner. Regards table top; then bowl. Holds bell obliquely, bowl up. 7.5 Inserts right thumb into bowl and grasps with right hand; rotates bell 70 degrees downward. Regards clapper. 10.5 Inserts left thumb into bowl twice; transfers to left hand; strikes table top with end of handle three times; lifts bell 4 inches above table top.



- C 13.75 Pokes clapper with right index finger; lowers bell, end of handle contacting table top. Grasps rim of bowl with right index and middle fingers. 16.0 Releases and pronates left hand at level of circumference of bowl. Strikes table top twice with end of handle; moves left hand up and down synchronously. 18.25 Grasps handle with left hand.



- D 20.0 Rotates bell 90 degrees left and transfers to right hand, grasping tip of handle; rings bell gently. Holds left hand inverted above table top.

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BEHAVIOR SITUATION
BELL
22.0 seconds
8 phases

Normative Se
Age: 40 weeks
Child: G47

Seconds



E 8.75 Waves bell mildly at chest level with left hand; strikes end of handle against table top six times; moves right arm in and out synchronously with each contact. 10.5 Again waves bell gently; contacts end of handle with tip of right index finger. Inspects clapper, grasping bowl with both hands; 14.75 carries bell to mouth; breaks right hand grasp; lowers handle into right palm at chest level.



F 17.0 Transfers to right hand, grasping end of handle.



G 18.0 Rings bell; lifts left hand synchronously. Regards table top.



H 18.25 Rings bell; lowers left hand synchronously. Bangs bell on table top; again rings bell at shoulder level; bangs bell on table top seven times; waves left hand synchronously. 20.0 Regards left hand; then bell. Rings bell gently 3 inches above table top (22.0 sec.)

BEHAVIOR SITUATION

BELL

22.0 seconds

8 phases

Normative Series

Age: 40 weeks

Child: G47

Seconds



- A 0.25 ¶ Regards incoming bell. 0.25 Holds both hands at ear level, arms flexed, palms facing outward; waves arms mildly.



- B 1.0 Approaches bell with right hand; left hand remains lifted. 2.0 Examiner places bell in standard median position.



- C 2.75 Grasps bell, encircling right fingers around handle; rotates 90 degrees upward, carrying bell to mouth level. 3.5 Grasps rim of bowl with left hand.



- D 6.0 Looks into bowl. Slowly lowers bell to chest level with both hands; rotates 30 degrees downward. Transfers to left hand, grasping bowl. Releases and inverts right hand.



Seconds

- E 13.5 Places left palm across circumference of bowl; again waves hand twice, patting bottom of bowl each time hand is lowered. Lifts bell with right hand to chin level, then to eye level. Regards clapper. 18.25 Bangs handle on table top. Transfers to right hand. Re-transfers to left hand; lifts and lowers hand. 22.75 Regards table top, then Examiner. Grasps handle with right hand. Regards bell. Transfers to left hand. Regards right hand. Rotates bell 90 degrees left; inverts bell and slides handle through cupped right hand. Regards right hand.



- F 34.25 Waves bell. Regards surroundings. Supinates right hand.



- G 34.5 Waves bell vertically three times. Rotates bell 90 degrees left. Regards handle. Inverts right hand.



- H 35.5 Lifts right hand to grasp bell at junction and bowl. Lowers bell with both hands, rotating horizontally right. Slaps bottom of bowl vigorously three times with left hand. Transfers to left hand, grasping circumference of bowl; 39.5 lifts bell; lowers, resting handle on back of right fingers. Regards surroundings at right. Grasps handle with right hand. Regards handle. (41.75 sec.)

BEHAVIOR SITUATION

BELL

41.75 seconds

8 phases

Normative Series

Age: 36 weeks

Child: B36

Seconds



- A 0.25 ¶ Regards incoming bell. 0.25 Pronates right hand on table top, arm fully extended. Rests left hand on table top near mid-line, index and middle fingers lifted, arm flexed. 2.0 Examiner places bell in standard median position. Slides right hand to bell, pushing bowl slightly left with index finger.



- B 5.5 Grasps bell by encircling right fingers around handle.



- C 6.5 Rotates bell 90 degrees left and lifts to chest level. 8.75 Transfers to left hand, grasping circumference of bowl. Supinates, then inverts right hand.



- D 13.0 Lowers bell and re-transfers to right hand by grasping bowl. Waves left hand vertically twice.

Seconds



- E 6.75 Re-transfers to left hand, grasping end of handle; rotates bell 145 degrees diagonally left forward and strikes table top. Inverts right hand, fingers fanned. Regards table top.



- F 7.25 Rotates bell 180 degrees right with left hand and bangs twice on table top.



- G 8.25 Rotates bell 160 degrees left and back 105 degrees. Transfers to right hand, grasping handle. Regards clapper. Places left palm across circumference of bowl; pronates hand on table top. Regards table top.



- H 12.25 Turns bell end for end and bangs it vigorously on table top three times. Regards bell. (12.5 sec.)

BEHAVIOR SITUATION

BELL

12.5 seconds

8 phases

Normative Series

Age: 32 weeks

Child: G43

Seconds



- A 1.25 ¶ Regards incoming bell. 1.25 Lifts both hands symmetrically to shoulder level. 2.0 Examiner places bell in standard median position. Approaches bell with a slightly circuitous loop of the right hand and strikes bowl with index finger, moving bell 1½ inches left; simultaneously approaches with left hand, but does not contact bell. 2.5 Lifts and lowers right hand, contacting rim with index finger.



- B 3.5 Approaches bilaterally, grasping handle with left hand and contacting handle with tips of right fingers.



- C 4.5 Carries bell to mouth; inserts right fingers into bowl.



- D 5.5 Transfers bell to right hand and rotates it 90 degrees left. Extends left wrist. Regards bowl.

Seconds



E 6.25 Lowers left hand; grasps rim of bowl; rolls bell 5 inches left and back; grasps bowl across circumference; lifts bell to crown level and lowers to chest level. Regards table top; then bell.



F 8.25 Approaches bell with right hand; transfers, encircling fingers around end of handle.



G 9.0 Rotates bell 90 degrees left with right hand and looks into bowl.



H 10.25 Transfers to left hand by grasping bowl. Regards table top. Re transfers to right hand, grasping handle; rotates bell 110 degrees upward. Regards bell. 14.0 Contacts bowl with left finger tips. Regards table top. Bangs bell on table top. (15.25 sec.)

BEHAVIOR SITUATION

BELL

15.25 seconds
8 phases

Normative Series

Age: 28 weeks

Child: G44

Seconds



- A 0.25 J Regards incoming bell. 0.25 Pronates both hands on table top, arms slightly flexed. Lifts left hand to chest level. 2.0 Examiner places bell in standard median position.



- B 2.25 Approaches bell with pronated left hand, fingers extended.



- C 3.0 Rotates left hand from pronate to oblique attitude and pushes bell 1 inch right with tips of fanned fingers; slides hand to table top; slaps table top, moving bell to right with thumb and index finger; lifts and drops hand, contacting junction of bell between thumb and index finger; pushes bell 3 inches right as hand slides down bowl.



- D 4.75 Contacts end of handle between left index and middle fingers; slides fingers to junction and knocks bell over; lifts hand.

Seconds



- E 10.25 Lifts bell slightly, rotates wrist 90 degrees left, and drags bell diagonally left backward on table top. Regards bell. Lifts left hand; extends fingers and pronates on table top.



- F 14.0 Leans trunk and head forward; lifts bell to mouth with right hand and chews tip of handle. Lifts left index finger and slides hand near bowl. 16.75 Places bell in upright position with right hand; slides hand to bowl, and moves bell 2 inches forward.



- G 19.5 Releases grasp on bell, but contacts circumference of bowl with right index finger; cups hand on table top and pushes bell 4 inches left with index finger.



- H 20.75 Re-secures bell, encircling right fingers around bowl. Regards table top. Turns bell on side and draws it to near median position. Regards bell. Grasps end of handle with left hand. (2 sec.)

BEHAVIOR SITUATION

BELL

22.5 seconds

8 phases

Normative Series

Age: 24 weeks

Child: G44

Seconds



- A 0.75 ¶ Regards incoming bell. 0.75 Approaches bell pronately with both hands. 2.0 Examiner places bell in standard median position. Inverts right hand near bell and slides left finger tips toward bowl. Regards table top. Pronates both hands on table top near bell. 4.25 (Examiner places bell more accurately in standard median position.) Regards bell.



- B 5.5 Pushes bell slightly to the left by contacting handle with tips of right ring and little fingers. Regards table top.



- C 6.0 Spreads right hand, contacting bell at end of handle, junction, and bowl.



- D 6.75 Slides right hand down slightly; tips bell, grasping it by encircling fingers around handle. Regards handle. Slides right hand to bowl, and with a rapid movement draws bell to table edge. 9.5 Regards table top.

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BEHAVIOR SITUATION

BELL

19.0 seconds

8 phases

Normative S

Age: 20 week

Child: B36

Seconds

- E 12.5 Pushes bell 2 inches farther to the right with left middle and ring fingers.



- F 13.25 Lifts left hand to chest.



- G 13.75 Abducts left hand, striking handle; bell falls over. Adducts hand. Regards table top; then bowl. 14.25 Approaches with left hand; drops hand below table top.



- H 15.25 Pursues bell with two loop approaches by left hand; rests hand table top 2 inches in front of bell; lifts hand to chin; loops slides hand three times without contacting bell. (19.0 sec.)

BEHAVIOR SITUATION
BELL
19.0 seconds
8 phases

Normative Series
Age: 20 weeks
Child: B36

Seconds



A 0.25 ¶ Regards incoming bell. 0.25 Rests right fingers on table edge; left hand pronate in near median position. Abducts and adducts left arm five times. 2.0 Examiner places bell in standard median position.



B 2.25 Regards bell inspectionally. Extends right fingers; slides hand backward. Lifts left elbow slightly; lowers; 5.5 abducts palm diagonally, sliding hand on table top with slight wrist rotation; approaches bell with a very circuitous loop.



C 7.5 Abducts left arm.



D 7.75 Adducts left arm; abducts and adducts arm again. 10.0 Examiner places bell in near median position. Fans left fingers and pushes bowl slightly to the right with index and middle fingers.

Seconds



E 9.75 Lifts and holds right arm above crown level; drops hand to table top. 11.25 Examiner places bell in near median position. Regards Examiner's hand.



F 12.5 Head sways forward; trunk slumps 45 degrees left. Extends right fingers. Regards table top.



G 13.0 Regards handle. Lifts left fingers slightly. Loops and abducts right hand at chest level; lifts hand to crown level; drops hand to table top. 14.0 Regards bowl.



H 15.0 Lifts and adducts right hand toward midline, but without contacting bell; spreads fingers and lifts hand; cups hand on table and relaxes fingers. (16.75 sec.)

BEHAVIOR SITUATION
BELL
16.75 seconds
8 phases

Normative Series
Age: 16 weeks
Child: G44

Seconds



A 0.25 ¶ Regards Examiner's approaching hand intently. 0.25 Rests flexed hands almost quiescently on table top. Trunk slumps 40 degrees left. 2.0 Examiner places bell in standard median position.



B 2.25 Looks at bell with intent, prolonged, and starey regard; fixates on handle. 6.0 Spreads and extends right fingers. Lifts semi-flexed right arm to shoulder level; lowers.



C 7.5 Again lifts right arm to shoulder level.



D 7.75 Lowers right arm. Extends left fingers. Regards bowl. Adducts right arm slightly; loops arm, lowering almost to table top.

BEHAVIOR SITUATION
PELLET BESIDE BOTTLE

34.0 seconds

4 phases

Normative Series

Age: 56 wce

Child: G48

Seconds



- A 2.25 Examiner places pellet and bottle side by side. Regards pellet. Rests left hand under table top. Approaches with right hand, pellet lies between thumb and index finger. Regards bottle. 2.25 Draws in right thumb; grasps pellet. 2.75 Lifts left hand, fingers extended, and quickly approaches bottle; pronates fingers on edge of mouth of bottle momentarily; semi-supinates and abducts hand; 4.25 grasps side of bottle; turns bottle to the right; carries to midline. Carries pellet to bottle with right hand.



- B 5.25 Holds pellet in right hand over mouth of bottle; raises wrist; repeatedly inserts pellet into bottle with index finger; 10.75 turns bottle outward as pellet is withdrawn from bottle. Regards pellet, then bottle. Places right middle and ring fingers into neck of bottle; withdraws; inserts thumb; withdraws; pellet falls to table top. Regards pellet. 15.25 Grasps bottle with right hand. Regards bottle. Transfers bottle to right hand. Lowers left hand below table top. Regards left hand, then pellet. Grasps pellet with left fingers. . . .18.0 (Examiner places bottle on table top.) Regards bottle. Rests semi-supinated right hand on table edge. Holds pellet with left thumb and middle finger over mouth of bottle; adjusts hand.



- C 19.5 Inserts pellet into neck of bottle with left hand; raises wrist; flicks bottle to the left, pellet falls to table top. Regards pellet. Lifts left hand; approaches pellet. . . .22.25 Re-presentation. (Examiner holds bottle on table top.) Regards bottle. Approaches bottle with left hand. Lifts left hand; pellet in semi-supinated right hand to chest level; simultaneously withdraws left hand; transfers pellet to left thumb and index finger; carries to side of mouth. 26.75 Places right palm over mouth of bottle; withdraws to chest level; midline; transfers pellet to right hand. . . .28.0 Lowers left hand to table edge. Inserts pellet into neck of bottle with right index finger; withdraws index finger; pellet adheres to finger, then drops to table top. Regards pellet. 31.5 Again grasps pellet with right hand and carries to neck of bottle.



- D 32.0 Releases pellet into bottle. Regards pellet. Lowers right hand to table top and pokes at pellet; grasps bottle, index finger across mouth of bottle. (34.0 sec.)

BEHAVIOR SITUATION
PELLET IN BOTTLE31.0 seconds
4 phases

Normative Series

Age: 56 weeks

Child: G48

Seconds



- A 3.75 \int Regards bottle. Extends right arm; lowers. Regards Examiner's hand. 2.0 Examiner drops pellet into bottle. Regards pellet. 3.75 Pokes at pellet in bottle with right thumb and index finger. Grasps bottle with both hands. (Examiner releases bottle.) Looks within bottle. 6.75 Shakes bottle vertically. Withdraws left hand. Regards pellet. Pokes at pellet with left fingers. 8.5 Waves both hands. Regards left hand, then table top. 11.25 Grasps neck of bottle with left hand. Regards Examiner. Inserts left fingers into bottle. Regards surroundings, then bottle. Withdraws left fingers. Regards pellet. 15.0 Waves both hands. Turns bottle outward and pokes prolongedly at pellet with left index finger. Regards bottle. 19.5 Waves hands simultaneously. Regards surroundings.



- B 21.0 Tips bottle to the left on table top with right hand. Regards pellet. Inserts left index finger into neck of bottle; withdraws. Turns bottle outward. Picks at bottle with left thumb and index finger. 22.5 Pokes at bottom of bottle; withdraws finger. . . . 23.75 (Pellet lies on table top.) Regards pellet. Transfers bottle to left hand and holds bottle, turned to the left, on table top. Places right index finger over pellet. Lowers bottle to table edge. Draws right index finger to thumb; extends index finger; grasps pellet with thumb and middle finger. Regards bottle. 25.5 Rotates bottle to upright position; adducts slightly; simultaneously carries pellet to bottle with right hand.



- C 26.0 Holds pellet over neck of bottle with right hand; inserts thumb and middle finger into neck of bottle; releases pellet into bottle; withdraws hand; turns bottle horizontally left. 28.75 Regards pellet in bottle.



- D 30.25 Pokes at pellet in bottom of bottle with right index finger; withdraws finger. (31.0 sec.)

BEHAVIOR SITUATION PELLET BESIDE BOTTLE

37.5 seconds
4 phases

Normative Series
Age: 52 weeks
Child: G48

Seconds



A 7.25 ¶ Examiner has placed pellet and bottle side by side. Regards pellet. Rests left hand under table top, right hand on table top. 2.5 Approaches pellet with left hand. Regards bottle. Holds left hand unsteadily above pellet. Regards pellet. 4.25 Grasps neck of bottle with left hand; slides hand to the left; simultaneously approaches pellet with right hand; flexes index finger and draws in thumb. Regards Examiner. Spreads left fingers and lifts hand. Regards pellet. 7.25 Slides right index finger around pellet; grasps. Regards bottle. 9.25 Lifts bottle, rotating it to horizontal position; simultaneously lifts pellet in fisted right hand.



B 10.5 Holds pellet against bottom of bottle; lifts pellet in right hand. Rotates bottle 70 degrees downward. 12.0 Carries pellet to bottle; inserts pellet into mouth of bottle, lowering bottle to table; jerks right hand upward; lowers slightly and holds fisted. 16.0 Again lifts bottle to horizontal position with left hand. Slides pellet in right hand to mouth of bottle.



C 17.5 Pushes bottle to table top in effort to insert pellet. 18.0 (Examiner places bottle on table top.) . . . 20.0 Pronates right hand on table top. Regards bottle. Holds pellet with left hand above mouth of bottle; pushes bottle to the right with pellet against neck; inserts pellet into neck of bottle.



D 23.75 Releases pellet into bottle; withdraws left hand. Looks into bottle. Pokes at pellet with left index finger; lifts hand. Regards bottle. 27.0 Grasps bottle, placing left palm across mouth. Regards left hand, then Examiner. Lifts bottle; turns bottle 120 degrees upward. Regards bottle. Pokes at bottom of bottle with right index finger. . . 28.0 Re-presentation. With difficulty inserts pellet into neck of bottle. (37.5 sec.)

BEHAVIOR SITUATION
PELLET IN BOTTLE28.25 seconds
4 phases

Normative Series

Age: 52 weeks

Child: G48

Seconds



- A 7.0 ¶ Regards pellet in bottle. Rests semi-supinated left hand on table top. Approaches with right hand; holds hand above bottle; 3.25 grasps neck of bottle, rotating bottle 45 degrees right; (Examiner releases bottle). Carries bottle to chest level; simultaneously places left hand on side of bottle; withdraws left hand and momentarily pokes at pellet in bottle. 6.0 Transfers bottle to left hand; tips bottle forward slightly. Looks inside bottle. 7.0 Inserts right index finger into mouth of bottle, tipping bottle 30 degrees inward. Lowers left arm to table edge. Regards pellet, then bottle. Withdraws right index finger; spreads fingers. 9.5 Lifts bottle and again looks within. Transfers bottle to right hand. Regards left hand.



- B 11.5 Waves bottle vigorously; waves left hand synchronously. Poises bottle at shoulder level. Regards bottle. 13.0 Waves hands again. Regards surroundings ahead. Holds hands in symmetrical attitude at chest level. Looks within bottle. Pokes mouth of bottle with left index finger; withdraws. 16.0 Waves hands. Regards table top, then bottle. Tips bottle outward; brings left index finger to neck of bottle; grasps neck with left hand; transfers. 19.0 Looks within bottle. Inserts extended right index finger into mouth of bottle; pushes bottle to table top; withdraws index finger. 21.0 Rotates bottle to upright position; grasps with both hands.



- C 21.5 Looks into mouth of bottle at pellet. Withdraws left fingers. Lifts bottle with right hand; inverts, pellet falls to table edge. ... 22.25 Lifts and carries bottle to right side. Regards pellet. Grasps pellet with left thumb and index finger, other fingers flexed; slides hand to the left; lifts hand slowly; twiddles pellet. Regards Examiner. 24.5 Extends left arm laterally. Regards platform. 25.5 Lowers left hand to platform; simultaneously lowers bottle to table top. Shifts regard to bottle.



- D 26.75 Holds bottle in right hand above table top. Turns head to the left, regarding Examiner's hand. 27.75 Places pellet in Examiner's hand. (Examiner withdraws hand.) Carries bottle to midline. Grasps bottom of bottle with left hand. Turns head to midline. (28.25 sec.)

BEHAVIOR SITUATION PELLET BESIDE BOTTLE

34.75 seconds
4 phases

Normative Series
Age: 48 weeks
Child: G48

Seconds



A 4.0 ¶ Examiner places pellet and bottle side by side. Regards pellet. Rests left hand on side of trunk. 2.5 Approaches pellet with right hand. Regards bottle. 4.0 Grasps pellet; lifts pellet in semi-supinated hand. Regards pellet. 4.5 Lifts and adducts left hand; closes left fingers on pellet in right hand. Regards bottle. 7.0 Extends right thumb, supinating hand on table top. Regards pellet. Again closes on pellet in ineffectual transfer. Withdraws both hands, pellet rolls to table top. 9.75 Approaches pellet bilaterally; places right index finger on pellet; flexes fingers. 13.5 Lifts both hands. Regards bottle. Approaches bottle bilaterally. Contacts side of bottle with right hand; withdraws hand. Grasps bottle with left hand; lifts bottle, turning it 90 degrees right.



B 15.5 Regards pellet on table top. Approaches pellet with right hand, index finger extended; places index finger over pellet; flexes. Regards bottle. 17.5 Grasps pellet; lifts pellet, semi-supinating right hand. Adducts left hand, contacting bottom of bottle with pellet; withdraws pellet. 19.75 Rotates bottle to upright position with left hand.



C 20.0 Presses pellet against neck of bottle with right hand; slides hand down bottle to table top; holds bottle on table top with left hand; 22.0 supinates hand on table, rotating bottle horizontally right; simultaneously semi-supinates right hand; extends fingers, pellet falls to table. Regards pellet. . . . 24.0 Approaches pellet with right hand; lifts pellet; contacts pellet with left fingers. (Examiner points to bottle.) Regards Examiner's hand, then pellet. Spreads right fingers; pellet falls to table top. Regards bottle. Grasps bottle with both hands. 27.25 (Examiner replaces bottle on table top.) Regards pellet. Grasps pellet with right hand; slides hand to midline. 30.0 Drops pellet from right hand and approaches bottle; withdraws hand; grasps pellet and carries to neck of bottle; pushes bottle to the right.



D 31.5 Holds pellet over center of mouth of bottle with right hand; inserts into neck; withdraws. Regards Examiner. Carries pellet in fist of right hand, semi-supinated, above table edge. Closes left thumb and index finger on pellet in ineffectual transfer. (34.75 sec.)

BEHAVIOR SITUATION
PELLET IN BOTTLE22.5 seconds
4 phasesNormative Series
Age: 48 weeks
Child: G48

Seconds



- A 8.75 ¶ Regards bottle. Extends both arms; lowers as Examiner withdraws bottle. 2.0 Examiner drops pellet into bottle. Regards pellet. Approaches bottle with both hands, index fingers extended; pokes at pellet with both index fingers. 4.0 Lowers left arm to table top; leans on elbow. Continues to poke at pellet with right index finger; withdraws right hand while lifting left hand to bottle. 7.25 Grasps with both hands. (Examiner releases bottle.) Looks inside bottle. Withdraws left hand. Regards pellet. Turns bottle 45 degrees right. 8.75 Pokes at pellet with left hand. Transfers bottle to right hand.



- B 10.75 Pokes at pellet with right index finger. Lowers bottle and turns horizontally outward; rotates bottle to upright position. Places right index finger on side of bottle; grasps bottle with both hands; turns inward. Withdraws left hand. Turns bottle 180 degrees left with right hand. 14.0 Grasps with left hand.



- C 14.5 Inverts bottle, pellet falls on table top. Withdraws right hand. Regards pellet. Extends right fingers; places hand on bottle with thumb on bottom. 15.5 Slides left fingers along bottle; grasps bottle with fingers across mouth; releases hand. 16.75 Approaches pellet with left hand; places index finger beside pellet; slides index finger over pellet; flexes fingers and draws in thumb; holds pellet on table top; slides hand to the left; 19.25 lifts hand; lowers, placing index finger next to pellet; flexes index finger and draws in thumb in ineffectual grasp; 21.25 extends index finger; grasps pellet between thumb and index finger.



- D 21.5 Regards bottle. Carries pellet in left hand over side of bottle; drops pellet. Regards pellet. 21.75 Again approaches pellet, placing left index finger beyond pellet. Abducts right hand slightly. Flexes left fingers. (22.5 sec.)

BEHAVIOR SITUATION
PELLET BESIDE BOTTLE

17.5 seconds
4 phases

Seconds



- A 2.0 ¶ Examiner places pellet and bottle side by side. Regards pellet. Pronates both hands on table top. Slides right hand to pellet, thumb and index finger extended. 2.0 Places right index finger beyond pellet; flexes. Regards bottle. Grasps pellet momentarily between right thumb and index finger; slides hand off pellet to the right. Regards pellet. 3.75 Extends right thumb and index finger slightly; slides hand so that pellet lies between thumb and index finger; draws thumb against index finger. Regards bottle.



- B 4.5 Grasps pellet between right thumb and index finger; lifts pellet in semi-supinated hand. Regards pellet.



- C 5.75 Holds pellet and regards it prolongedly. Lifts left thumb; extends fingers. 6.25 (Examiner points to bottle.) 7.0 Lifts left hand; rubs extended left thumb against right thumb. Regards bottle; then Examiner's pointing hand. Extends left index finger slightly.



- D 9.25 Places left index finger on pellet in right hand. (Examiner withdraws hand.) Slides left index finger off pellet. Regards pellet. 12.25 Again contacts pellet with left index finger; closes thumb and index finger over pellet in ineffectual transfer. 13.5 Partially extends right fingers; semi-supinates hand. Cups left hand on table top. 15.0 Extends right index finger, pellet falls on table edge. 15.5 Places left index finger on pellet; flexes. Slides pellet in left hand over table edge. (17.5 sec.)

BEHAVIOR SITUATION
PELLET IN BOTTLE

27.25 seconds

4 phases

Normative Series

Age: 44 weeks

Child: G48

Seconds



- A 5.25 ¶ Regards bottle. Extends both arms forward. 2.0 Examiner drops pellet into bottle. Extends right hand near bottle. Lowers both arms. Regards Examiner, then bottle. 3.5 Approaches bilaterally; grasps side of bottle with left hand, then with right hand. (Examiner releases bottle.) 5.25 Looks within bottle. Turns bottle 45 degrees right. Regards bottle. Releases right hand. Carries bottle to the left, rotating it 60 degrees left. 7.0 Re-grasps bottle with right hand and carries to mouth. 9.0 Removes bottle from mouth momentarily; loosens left hand grasp. Releases right hand, spreading fingers; simultaneously carries bottle 5 inches left of midline; turns bottle 45 degrees left and regards pellet in bottle.



- B 10.5 Pokes right index finger into neck of bottle. Rotates left wrist, turning bottle horizontally outward. 12.5 Lowers right elbow to table top, hand above table edge at midline. Regards surroundings, then platform, turning trunk and head to the left. 13.75 Transfers, grasping side of bottle with right hand. Lowers left hand to platform. Lowers right arm to table top and carries bottle, rotated outward, 2 inches right of midline. . . . 16.25 Rotates bottle 120 degrees diagonally left forward. Regards bottle. Inserts left thumb into mouth of bottle and transfers; lifts and carries bottle to side.



- C 17.75 Tips bottle so that pellet falls on thumb in bottle; 18.5 inverts bottle, then turns it to the right. Grasps bottom of bottle with right hand; lowers. Spreads left fingers, thumb remaining in mouth of bottle. 20.5 Releases right hand. Rotates extended left hand to prone, lowering edge of bottle to table top. Grasps bottle with right hand. Snaps left thumb out of mouth of bottle, sending pellet to table top. Regards pellet. 21.75 Approaches pellet with left fingers extended; grasps between thumb and index finger. Regards left hand. Draws pellet 3 inches to the left. Lifts bottle with right hand, rotating it to upright position. 25.0 Lifts pellet to shoulder level with left hand; extends fingers, apparently twiddling pellet. Regards pellet.



- D 25.5 Carries pellet toward mouth with left hand. Opens mouth. (Examiner restrains hand activity.) Lowers left hand to table top, fingers extended; drops pellet to platform. (27.25 sec.)

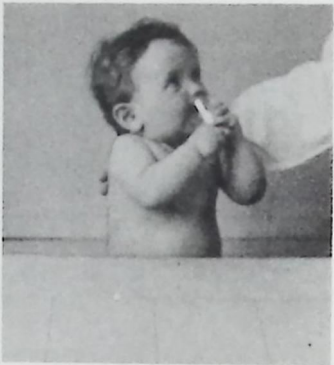
BEHAVIOR SITUATION
PELLET BESIDE BOTTLE

27.5 seconds
4 phases

Seconds



A 2.25 ¶ Examiner has placed pellet and bottle side by side. Regards bottle. Rests pronated right hand at table edge. 2.0 Approaches bottle with left hand, fingers extended; 2.25 grasps bottle with fingers across mouth; lifts to chest level, rotating bottle 120 degrees right. 3.25 Grasps underside of bottle with right hand. Relaxes left hand and adaptively re-grasps bottle. Loosens right hand grasp but contacts flexed fingers with bottle. 4.5 Carries bottle to mouth with both hands; extends right fingers and re-grasps bottle. Regards Examiner.



B 7.0 Chews bottom of bottle prolongedly; 9.5 removes from mouth; lowers. Regards bottle. Lifts bottle vertically; turns forward and back. Regards surroundings at left. 11.5 Spreads left fingers; replaces on bottle. Extends right fingers momentarily. Regards table top, then bottle. Withdraws left hand. 12.75 Abducts both hands. Regards table top. Lifts right hand; lowers with a jogging movement ending in three bangs of side of bottle against table top. Rests left hand on finger tips. 14.5 Slides bottle diagonally toward pellet; simultaneously extends left fingers and slides hand to pellet.



C 14.75 Pokes pellet with left index finger; flicks pellet 2 inches to the left. Slides bottle to the right. Slides left hand to pellet; places over pellet; flexes fingers simultaneously; grasps pellet; retracts fist hand.



D 16.75 Lifts fisted left hand, semi-supinated, pellet drops to table top. Regards left hand, then pellet. Lifts bottle. Regards pellet. Approaches, flexing left index finger beside pellet; cups fingers on table top; slides hand drawing pellet 2 inches to the left. 18.75 Lifts left hand slightly; spreads fingers and places hand so that pellet lies between index and middle fingers; flicks pellet with middle finger; withdraws hand. Regards left hand. 21.0 Places left hand over pellet; flexes fingers simultaneously; draws hand with pellet to table edge. 23.0 Lifts hand, spreads fingers and lowers hand; jerks hand below table top, pellet falls to platform. Regards pellet. Pursues pellet with left hand. Lowers bottle to table edge. (27.5 sec.)

BEHAVIOR SITUATION
PELLET IN BOTTLE45.25 seconds
4 phasesNormative Series
Age: 40 weeks
Child: G48

Seconds



- A 2.75 ¶ Regards bottle. Extends right hand forward. Approaches bottle with left hand; withdraws. 2.0 Examiner drops pellet into bottle. 2.75 Regards pellet. 3.0 Fingers bottle with left hand prolongedly; withdraws. 7.0 Approaches and grasps bottle with both hands. 9.0 (Examiner releases bottle.) Looks inside bottle; turns bottle outward. Waves hands. Lays bottle on table top with left hand. 13.5 Shakes bottle vertically with both hands. Withdraws right hand; abducts. Lifts bottle. 16.25 Encircles neck of bottle with right fingers; rotates bottle horizontally left. Releases left hand. 18.0 Inverts bottle. Re-grasps neck of bottle with left hand and holds. Withdraws left hand and extends wrist. Rotates bottle to horizontal position with right hand. Grasps bottom of bottle with left hand and turns bottle upright. 22.0 Interlocks fingers around bottle; carries bottle to mouth and chews neck of bottle. Regards Examiner.



- B 26.5 Withdraws right hand and pokes index finger into neck of bottle momentarily; withdraws. Regards bottle. 27.0 Turns bottle diagonally left forward. Grasps with right hand and carries to the left; shakes bottle vertically. Regards surroundings at the left. 29.25 Withdraws right hand. Hits bottle against table at angle of 60 degrees right, pellet falls to table top. Drops right hand on left wrist; abducts right hand, sliding hand over mouth of bottle; re-grasps bottle with right hand and carries to mouth. 30.5 Lowers, turning bottle outward. Regards bottle. Again lifts bottle; lowers to table top and holds bottle rotated 45 degrees outward; sets bottle upright. Carries bottle to mouth with both hands and chews. Regards surroundings at the left.



- C 33.5 Lowers bottle to table top with right hand and holds at an angle of 30 degrees left. Regards pellet. Approaches pellet with left hand, placing fingers so that pellet lies between middle and ring fingers; slides hand over pellet, brushing it 6 inches to the left; flexes fingers simultaneously; grasps pellet; supinates fist left hand at chest level. 37.0 Carries bottle, rotated outward, to midline with right hand. Contacts neck of bottle with semi-pronated left hand. Withdraws bottle quickly; places mouth of bottle on ulnar side of fist left hand; repeats twice. 39.25 Extends left fingers. Regards pellet. Extends right index finger.



- D 42.25 Pokes right index finger at pellet in left hand. Spreads left fingers; abducts hand slightly, pellet drops to platform. Abducts right hand. 44.5 Lowers right hand to table edge, then below table top. (45.25 sec.)

BEHAVIOR SITUATION
PELLET IN BOTTLE

15.5 seconds
4 phases

Seconds



- A 2.0 ¶ Regards bottle. Rests right hand at table edge; extends left arm forward. Slaps table top alternately with both hands. 2.5 Lifts right hand. Regards Examiner's hand. Examiner drops pellet into bottle. Semi-supinates right hand. Regards Examiner's hand. Extends right fingers. Regards bottle. 3.0 Lifts and abducts everted right hand to shoulder level; makes an abortive approach to bottle. Lifts left hand. 4.0 Lowers right hand to table top; lifts; extends fingers. Regards right hand. Lowers pronated right hand to table top; flexes fingers. Regards bottle. 5.5 Lifts right hand to shoulder level; adducts to bottle.



- B 6.25 Inserts right radial fingers into mouth of bottle; withdraws. Repeats. Lifts left hand slightly. 9.0 Again inserts right fingers into neck of bottle, pulling bottle to table top; withdraws fingers. Bottle falls to table top. (Examiner releases bottle.) 11.0 Encircles neck of bottle with left fingers, turning bottle 90 degrees right to horizontal position on table top. Contacts bottom of bottle with right hand. 13.0 Lifts bottle with left hand, rotating wrist from everted to prone. Regards Examiner, then bottle.



- C 13.75 Encircles right fingers around bottle and inverts with both hands. Releases bottle from left hand. Regards table top. Quickly withdraws bottle to shoulder level with right hand, rotating wrist to prone position; bangs side of bottle against table top. Lowers fist to table top. Regards bottle.



- D 14.5 Again bangs bottle on table top with right hand. Repeats. Lifts bottle to shoulder level, turning bottle from horizontal to upright position. Lifts left hand slightly. Regards table top. 15.0 Lowers bottle obliquely to table edge 8 inches right of midline. Rotates to upright position. (15.5 sec.)

BEHAVIOR SITUATION
PELLET IN BOTTLE

19.75 seconds
4 phases

Seconds



A 3.75 ¶ Regards bottle. Rests right hand on table edge. Extends left arm forward slightly; adducts. Lifts right hand 2 inches. 2.0 Examiner drops pellet into bottle. Adducts and extends left arm farther. (Examiner places bottle on table top.) Lowers right arm to table top. Lowers left hand; grasps side of bottle; index finger across mouth; rotates wrist 90 degrees right. 3.75 Grasps bottom of bottle with right hand; lifts bottle with both hands. Regards table top.



B 4.25 Places neck of bottle into mouth. Regards surroundings. 5.0 Withdraws bottle from mouth. Regards Examiner. Lowers bottle to table; releases bottle and lowers left hand to table top. 6.5 Lifts bottle 2 inches with right hand; simultaneously abducts and lifts left hand to shoulder level. Adducts bottle to chest; grasps bottle with left hand, palm across mouth of bottle; holds bottle at chest level with both hands. Regards surroundings at right.



C 7.75 Transfers bottle to left hand and rotates bottle 80 degrees upward. Regards bottle. Carries bottle to chest level, grasping bottom with right hand. Regards Examiner. Spreads right fingers; re-grasps bottle, lowering to table top with both hands. 9.25 Abducts and lifts left hand; slides hand over mouth of bottle. Regards bottle then surroundings ahead. 10.25 Lifts bottle to mouth with both hands; chews left hand; withdraws hand from mouth; releases bottle from hand.



D 13.75 Mouths bottle and re-grasps with left hand; chews neck of bottle. Releases bottle and lowers right hand. 14.75 Withdraws bottle from mouth and lowers. Lifts right hand to ear level. Regards Examiner. Lowers right hand to table edge. Regards bottle. 16.0 Lowers bottle to table top with left hand. Lifts right hand and lowers slightly. Lifts bottle 2 inches. Regards surroundings. 18.75 Lowers right hand farther; adducts to midline. Regards Examiner straightening him; shifts regard to bottle. Lifts bottle to mouth with left hand. Regards surroundings. 19.5 Places neck of bottle into mouth. (19.75 sec.)

Seconds



- A 3.5 ¶ Regards incoming pellet. Holds left hand under table top; pronates right hand above table top. Lifts fist left hand to shoulder level; simultaneously lifts right hand slightly. Lowers and semi-supinates left hand. 2.0 Examiner places pellet in standard median position. 2.75 Adjusts left hand by flexing ulnar fingers and extending thumb and index finger; makes a slightly circuitous plane approach, placing hand near pellet; 3.5 slides hand and places index finger on pellet. Lowers right hand to table edge, palm and fingers lifted. Adducts left thumb, flexes index finger and lifts pellet with a vertical pincer grasp; abducts and inverts hand. 5.0 Regards Examiner. Simultaneously lifts and semi-supinates right hand; pronates hand on table edge. 6.75 Rubs pellet against trunk while lowering left hand below table top, and while lifting hand to chest.



- B 10.75 Regards pellet. 11.15 Lowers left hand to table edge. Lifts right radial fingers from table edge. Lifts both hands to shoulder level. Regards surroundings, turning head and trunk to the right. 13.5 Extends right arm forward; simultaneously adducts left hand; engages hands and draws to chest, lowering hands slightly. 15.75 Rotates head and trunk forward. Regards pellet in left hand. Separates hands slightly. Regards surroundings ahead. 17.0 Engages hands and lifts to chin level; 19.0 lowers right hand to table edge momentarily; lifts slightly. Regards Examiner, turning head to the left. Abducts right arm. Lifts left hand to chin level.



- C 21.25 Lifts left hand farther and extends pellet to Examiner. Regards Examiner's hand. Turns head and trunk to the left. Rests right arm and partially flexed hand on table top. 21.5 Places left thumb and radial fingers in Examiner's palm; releases pellet. Regards pellet in Examiner's hand.



- D 23.75 Holds extended left hand above Examiner's hand; withdraws hand (Examiner simultaneously withdraws hand.) (24.25 sec.)

Seconds



A 2.75 ¶ Regards incoming pellet immediately. Holds both hands at shoulder level, right hand opened, left hand semi-supinated. Waves right hand. Lowers and pronates both hands. Makes a straight plane approach to pellet with right hand, index finger directed toward pellet; withdraws hand. 2.0 Examiner places pellet in standard median position. Approaches pellet with right hand, index finger extended; 2.75 places index finger on pellet in an oblique attitude, other fingers extended and lifted from table top.



B 3.0 Everts right hand slightly as tip of thumb contacts tip of index finger on pellet; extends index finger just beyond pellet; everts hand farther with fingers extended and lifted, index finger almost perpendicular to table top.



C 4.0 Flexes right index finger slightly and adducts thumb, neatly plucking pellet; pronates, then semi-supinates hand as pellet is carried to mouth. Regards Examiner.



D 6.0 Inserts right index finger and pellet into open mouth. 6.75 (Examiner withdraws infant's hand.) (7.25 sec.)

Seconds



- A 3.75 ¶ Regards incoming pellet immediately. Extends left arm laterally; right arm forward; waves both hands prolongedly. 2.0 Examiner places pellet in standard median position. 2.75 Makes a straight plane approach to pellet with right hand, contacting pellet with flexed index and middle fingers; slides hand off pellet, rolling pellet 1 inch to the right; 3.75 adjusts fingers over pellet in an oblique attitude; pushes pellet to midline; places index finger on pellet; slides finger off and again replaces on pellet. Regards Examiner. 7.25 Grasps pellet with right hand in a vertical pincer grasp; lifts pellet, semi-supinating hand. Regards pellet.



- B 8.25 Rolls pellet momentarily between finger tips of right hand; drops pellet on table top; 9.25 makes a straight plane approach to pellet, index finger extended; places index finger on pellet; pinches pellet and sends it to the right; 11.5 extends index finger and places it on pellet in an oblique attitude; slides finger off pellet; replaces index finger on pellet. Regards Examiner. 12.75 Closes right thumb and index finger on pellet; lifts pellet in a vertical pincer grasp. 13.0 Lifts left hand from table edge. Adds and lifts both hands. 13.75 Regards pellet in right hand. Contacts right hand with left hand.



- C 14.5 Inserts radial digits of right hand at the converging junction of radial digits of left hand. Transfers pellet to left hand, grasping with a pincer grasp of thumb and first two fingers; withdraws right hand. 15.25 Regards pellet. Lowers right arm.



- D 15.75 Lifts pellet slightly with left hand. Opens mouth. Regards Examiner. Carries pellet to mouth; inserts radial digits with pellet into mouth. 17.0 (Examiner withdraws infant's hand.) Regards Examiner's hand. (17.25 sec.)

PELLET

31.75 seconds

8 phases

Seconds



- E 22.5 Places left index finger beyond pellet; adjusts and re-adjusts finger over pellet without secural; 24.5 adducts left thumb against radial surface of flexed index finger with very transient secural of pellet; slides hand slightly to the left; again places left index finger beyond pellet; flexes finger and adducts thumb with transient secural of pellet; slides hand 4 inches to the left while holding pellet; withdraws hand from pellet; 28.25 places index finger beyond pellet; withdraws thumb.



- F 29.25 Flexes left index finger; adducts thumb toward index finger.



- G 29.75 Closes left thumb and index finger, grasping pellet with an inferior pincer grasp; lifts pellet. Lifts right hand 4 inches above table top.



- H 31.0 Carries pellet toward mouth; opens mouth. Regards Examiner; this activity is restrained. (31.75 sec.)

BEHAVIOR SITUATION

PELLET

31.75 seconds

8 phases

Normative Series

Age: 44 weeks

Child: G31

Seconds



A 3.75 ¶ Regards pellet immediately. Pronates right hand at table edge; holds partially flexed left hand above table top. Pats table three times with right hand; holds hand on table top. Lowers left hand slightly. 2.0 Examiner places pellet in standard median position. 2.5 Extends and lifts right index finger; makes a straight plane approach to pellet, 3.75 placing right index finger beside pellet; slides finger around pellet; flexes finger and adducts thumb, other fingers extended and lifted.



B 5.25 Closes right thumb and index finger without secular of pellet; slides index finger beside pellet; closes thumb and index finger; extends index finger and places it on pellet; 7.25 flexes index finger and adducts thumb, other fingers extended; grasps pellet pincer-wise.



C 8.25 Lifts pellet with right hand. Regards Examiner. Carries pellet to mouth.



D 9.0 Places pellet into mouth. 11.0 Regards Examiner's hand as this activity is restrained. . . . 11.75 Withdraws right hand from mouth. 12.0 (Beginning of re-representation of pellet.) Waves both hands; holds in symmetrical position at chest level. 16.25 Examiner places pellet in standard median position. Approaches pellet with right hand. (Examiner restrains infant's arm.) 18.0 Extends left arm forward slightly; simultaneously lifts right arm to symmetrical position and approaches pellet with a bilateral straight plane approach, placing right index finger beyond pellet. (Examiner withdraws infant's right hand.)

Seconds



- E 13.0 Places right index finger on pellet; pivots hand on index finger. Simultaneously abducts fist left hand on table top; extends fingers; places index finger on pellet. Retracts right hand slightly.



- F 20.0 Flexes left index finger against palm, securing pellet under fingers; flexes other fingers, closing hand.



- G 21.25 Lifts fist left hand to crown level. Regards left hand, then surroundings ahead. Lowers left hand slightly and adducts. Left right hand. Shifts regard to left hand as right hand, index finger extended, is brought to left hand; 22.5 pokes left hand with right index finger; lowers both hands slightly; separates hands.



- H 23.5 Pokes left thumb with right index finger. Lowers both hands to chest level. 26.0 Pronates right hand on table top. Regards right hand, then left hand. Lowers fist left hand to table top. Turns head to the left and regards Examiner. 27.0 Withdraws left hand and lowers below table top; rubs hand and pellet against table. Regards left hand. . . . 28.75 Holds left hand at table edge. Places right index finger on left hand; removes hand to table edge. Lowers left hand below table top. Lowers right hand (31.25 sec.)

BEHAVIOR SITUATION

PELLET

31.25 seconds

8 phases

Normative Series

Age: 40 weeks

Child: G31

Seconds



A 2.25 ¶ Regards pellet immediately. Holds both hands partially flexed above table top. Makes a bilateral circuitous plane approach, index fingers extended toward pellet. 2.0 Examiner places pellet in standard median position. 2.25 Places both index fingers on pellet; abducts both hands, pushing pellet with right index finger. 4.75 Makes a straight plane approach to pellet with left hand, placing hand so that pellet lies between index and middle fingers.



B 5.5 Draws left index finger to middle finger without secular of pellet, other fingers remaining extended on table top; spreads fingers, lifting from table top, and abducts hand 4 inches. 7.0 Makes a circuitous plane approach with right hand, index finger directed toward pellet. Approaches pellet with left hand.



C 8.0 Simultaneously places index fingers on each side of pellet; slides left index finger over pellet; flexes fingers but without secular; 11.0 extends index finger, pushing index finger and pellet under right index finger and out; 12.5 draws both hands near table edge; 14.0 flexes and extends left index finger near pellet; spreads fingers.



D 17.25 Flexes left fingers simultaneously over pellet without secular, as right index finger is poised over pellet.

PELLET

36.0 seconds

8 phases

Seconds



- E 7.5 Semi-supinates right hand. Regards pellet. Lifts pellet to mouth. Regards surroundings at right. Places pellet into mouth. Regards Examiner's arm as mouthing activity is restrained. . . . 23.0
Regards pellet. Pronates right hand on table top. Regards left hand. Slides left hand over pellet; drags hand to the left; flexes fingers simultaneously, with momentary extension of index finger.



- F 24.75 Flexes left index finger but without grasp; pushes pellet 5 inches to the left as it is held under index and middle fingers; jerks hand away from pellet. Regards pellet. 26.0 Extends left thumb and index finger; slides hand toward pellet and places index finger beside pellet.



- G 27.0 Pushes pellet to the right with left index finger; swings index finger beyond and around pellet; closes hand without grasp; extends thumb and index finger; slides index finger, then hand over pellet; flexes fingers, index finger partially extended, in ineffectual grasp. 30.0 Pushes pellet to the left with left index finger; slides hand over pellet; flexes fingers, thumb patting, without grasp. 32.0 Slides left hand farther to the left, drags pellet under hand; lifts fingers slightly; lowers index and middle finger tips beside pellet; extends fingers beyond pellet; slides hand so that pellet lies between thumb and index finger.



- H 34.5 Draws left thumb against radial surface of index finger; flexes fingers simultaneously, grasping pellet in scissors manner. Carries pellet to mouth between left thumb and index finger. Examiner restrains this activity.) (36.0 sec.)

BEHAVIOR SITUATION

PELLET

36.0 seconds

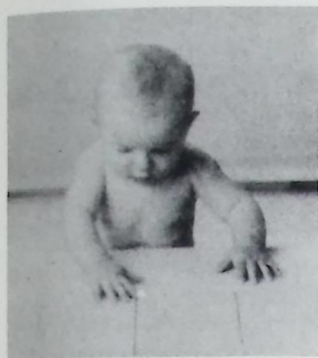
8 phases

Normative Series

Age: 36 weeks

Child: B34

Seconds



A 2.5 ¶ Regards incoming pellet. Pronates right hand on table top. Extends left arm forward, lifting and lowering frequently. Retracts right hand to table edge. 2.0 Examiner places pellet in standard median position. Lowers left hand 5 inches left of midline; simultaneously makes a loop slide approach to pellet with right hand; 2.5 hits pellet, moving it 1 inch to the left; slides hand so that pellet lies between thumb and index finger; adducts thumb toward index finger.



B 3.0 Flexes right fingers simultaneously, with momentary extension of index finger, but without grasping pellet; extends fingers, pushing pellet to the left with index finger; flexes fingers simultaneously; extends, sliding fingers over pellet.



C 4.5 Flexes right fingers simultaneously as volar surface of thumb is brought against radial surface of index finger; lifts fist slightly; lowers hand and extends fingers so that pellet lies between thumb and index finger.



D 6.0 Brings volar surface of right thumb against radial surface of index finger, flexing fingers simultaneously, and grasps pellet in scissors manner; slides fist to the right.

PELLET

20.25 seconds

8 phases

Seconds



E 13.5 Flexes right fingers slightly, thumb and index finger leading in effectual grasp. 13.75 Makes a circuitous loop slide approach with left hand.



F 15.5 Places left hand over pellet. Lifts right fingers slightly. Flexes left fingers over pellet, thumb participating.



G 16.25 Closes left fingers on pellet in a hand grasp. Regards surroundings ahead. 17.0 Supinates left hand. Regards left hand. Lifts and adducts right hand slightly; extends fingers; lowers fingers to table top.



H 18.5 Extends fingers of semi-pronated left hand and pellet falls on table top. Regards pellet. 19.0 Pronates left hand over pellet. Adducts right hand slightly. Flexes left fingers; retracts hand slightly from pellet to table edge; flexes fingers. Regards left hand (20.25 sec.)

BEHAVIOR SITUATION

PELLET

20.25 seconds

8 phases

Normative Series

Age: 32 weeks

Child: G47

Seconds



A 1.5 ¶ Regards table top. Flexes right fingers at ear level; extends left arm laterally. Regards Examiner's incoming hand. Flexes left arm, bringing arms into symmetrical position momentarily; lifts left hand; simultaneously lowers and extends right arm forward; again lifts arms to symmetrical position. 1.5 Regards pellet. Examiner places pellet in standard median position. 2.25 Approaches bilaterally; makes an abortive circuitous loop approach with right hand; holds partially flexed hand semi-supinated above table top; extends left arm laterally, making a very circuitous loop slide approach ending with hand near pellet.



B 3.5 Slides left hand over pellet so that it lies between index and middle fingers. Lifts right hand slightly.



C 4.0 Rakes left fingers off pellet; retracts hand on table top. Regards left hand. Extends right fingers. 5.25 Makes two loop approaches with left hand. Lifts right hand. 6.0 Slaps left hand on table top; again makes two very circuitous loop approaches, placing hand over pellet momentarily. Waves right hand occasionally. 7.25 Lifts left hand and places near pellet. Lowers right hand, partially flexed, to table top. 8.0 Adducts left hand so that index finger contacts pellet; extends index finger, flicking pellet 1 inch to the right; slides hand over pellet. Extends right fingers.



D 10.75 Flexes left fingers over pellet in ineffectual grasp. 11.5 Retracts left hand and brushes pellet near table edge. Lifts and abducts left hand; lowers hand to table edge. 12.5 Slides right hand to pellet, placing hand so that pellet lies between thumb and index finger.

PELLET

21.75 seconds

8 phases

Seconds



E 15.5 Places left hand over pellet; flexes and extends fingers. Regards left hand. 16.25 Lifts left hand slightly and abducts 3 inches beyond pellet. Regards pellet.



F 17.0 Rakes left fingers off pellet to table edge. Makes a loop approach to pellet with right hand, placing hand over pellet. Flexes left fingers.



G 17.5 Flexes right fingers over pellet; extends; flexes fingers and draws in pellet. Regards right hand.



H 18.5 Removes right hand from pellet to table edge. Regards pellet. 19.0 Lifts left hand; extends fingers; lowers partially flexed fingers to table top. Regards left hand. 20.0 Spreads left fingers and pronates on table top; slides hand to table edge. Regards pellet. 20.5 rounds on left, then pellet. Abducts right hand, brushing pellet forward. (21.75 sec.)

BEHAVIOR SITUATION

PELLET

21.75 seconds

8 phases

Normative Series

Age: 28 weeks

Child: G44

Seconds



A 3.5 ¶ Regards Examiner's incoming hand. Rests sharply adducted right arm along table edge; cups left hand on table top. Leans slightly to the right. Abducts right hand slightly; spreads fingers. 2.0 Examiner places pellet in standard median position. Regards pellet. 3.5 Lifts left hand above shoulder level. Retracts right hand 8 inches to the right; simultaneously makes a very circuitous double loop approach with left hand.



B 4.0 Places left hand near pellet; flexes fingers simultaneously; extends index and middle fingers; lowers hand so that pellet lies between index and middle fingers. 4.75 Lifts right hand slightly and adducts toward pellet. 5.25 Flexes left fingers; lifts to shoulder level; completes a loop approach with middle finger flicking pellet 1 inch forward. Regards table top, surroundings at left, then pellet. 6.5 Again lifts left hand to shoulder level and lowers 3 inches left of midline.



C 7.0 Flexes left fingers simultaneously, sliding hand to pellet; extends fingers so that pellet lies between index and middle fingers; flexes fingers simultaneously; extends index and middle fingers. Regards Examiner. 8.75 Retracts left hand slightly. Regards table top, surroundings ahead, Examiner's incoming hand, then pellet. 11.75 Examiner places pellet in near median position. Holds fistful left hand semi-supinated above table top. 13.0 Slides right hand to pellet; simultaneously pronates and lowers left hand to table edge.



D 13.25 Contacts pellet with right index finger; flexes fingers over pellet; extends fingers, flicking pellet to the left; slides hand to pellet; extends fingers, pushing pellet farther to the left. 14.75 Lifts left hand and lowers momentarily. Retracts right hand slightly. Again lifts left hand and completes a loop approach to the pellet.

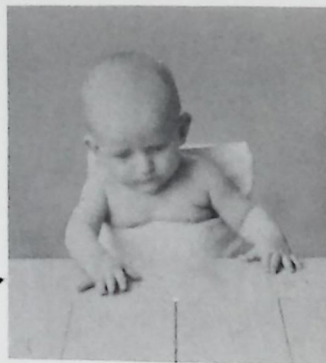
Seconds



- E 7.25 Extends and lifts right fingers. Regards right hand. Withdraws right hand to table edge; lifts and lowers. Regards surroundings at the left. 7.75 Slides left hand to table edge; lifts hand 4 inches above table top.



- F 8.5 Regards Examiner. Lowers left hand, fingers flexed slightly, to table top; pronates hand. 9.5 Semi-supinates right hand. Regards pellet.



- G 10.25 Approaches pellet with right hand, placing hand 3 inches right of pellet. Regards Examiner's arm as pellet is being moved to near median position, then shifts regard to Examiner's hand. 11.0 Lifts and adducts right hand to midline at table edge momentarily; lifts and abducts, pronating hand 5 inches right of midline; slides hand toward pellet. 12.0 Examiner places pellet in near median position. Regards pellet.



- H 12.25 Sweeps pellet off table top in adductive movement of right hand. Regards table top. Again slides hand in rotary manner across table top; pronates hand at midline. Regards right hand. Retracts right hand to table edge. Regards Examiner. 14.0 Lifts right hand. Spreads left fingers and adducts hand slightly above table edge. 14.25 Slaps right hand on table top 2 inches right of midline; slides hand toward midline, then to table edge; relaxes fingers. (15.75 sec.)

BEHAVIOR SITUATION

PELLET

15.75 seconds

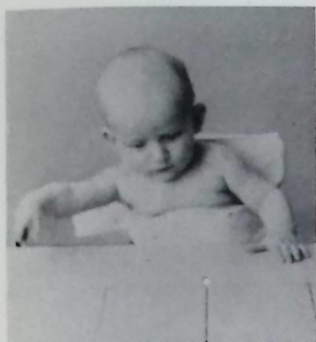
8 phases

Normative Series

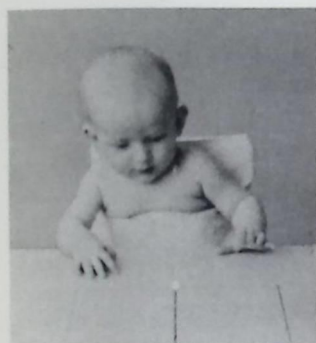
Age: 24 weeks

Child: B38

Seconds



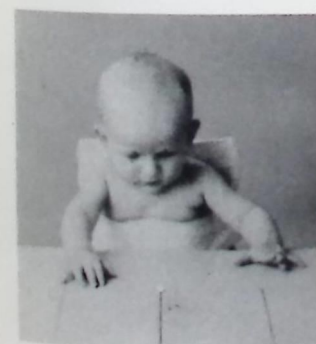
- A 2.25 ¶ Regards Examiner's incoming hand. Cups right hand, index finger extended, on table top; pronates left hand at table edge. Leans slightly to the right. Spreads right fingers and lowers to table top. 2.0 Examiner places pellet in standard median position. Regards pellet. 2.25 Makes an angular loop slide approach to pellet with right hand, placing hand 3 inches right of midline; flexes fingers slightly.



- B 3.0 Lifts left fingers from table top. Retracts right hand quickly to table edge. Extends left wrist, hand open; lifts and rotates hand 90 degrees left; lowers momentarily to table edge in full arm extension.



- C 4.75 Lifts left hand above shoulder level; makes an abortive loop approach, sharply flexing the wrist; spreads fingers and pronates hand 6 inches left of midline. 5.75 Approaches with right hand, describing a double loop.



- D 6.75 Completes the approach, placing right hand 3 inches right of pellet. Lifts radial fingers of left hand.

Seconds



- A 0.5 ¶ Regards Examiner's incoming hand. Leans to the right. Pronates left hand at midline; rests partially flexed right hand at table edge. 0.5 Lifts left hand and right fingers from table top. Lifts left hand farther in extension; lowers to table top 2 inches forward. 1.75 Lifts and adducts right hand to mouth; drops hand to table edge. 2.0 Examiner places pellet in standard median position.



- B 2.25 Regards pellet. Retracts left hand; flexes and inverts hand at table edge. Semi-supinates right hand; extends fingers. Regards table top at right. 3.5 Pronates right hand; simultaneously pronates, lifts, and abducts left hand 4 inches. Regards surroundings at the left. Adducts left hand to midline.



- C 4.5 Regards surroundings at right. Again lifts left hand; pronates on table top at midline. Regards left hand. 6.25 Slides right hand to table edge; simultaneously retracts left palm on table top; lifts left fingers, then right fingers. 7.5 Lifts and adducts left hand to right hand. Regards table top; then surroundings at right. Lowers right fingers to table edge; lifts and lowers; everts hand. Withdraws left hand slightly. 11.0 Examiner places pellet in near median position. Regards Examiner's hand, then pellet. Lifts left hand to chin level; pronates on table top; fingers table top. Shifts regard to surroundings at right. 13.5 Lifts left hand to chest level.



- D 14.25 Slowly places left hand on table top. Abducts right hand to chest. Pronates left hand on thumb; pronates on table top. Regards left hand. Lowers right hand; lifts slightly, spreading fingers; lowers to table edge. Lifts left hand above pellet. Regards pellet. Places left palm over pellet. Adducts right hand along table edge; lifts and abducts to table edge. Regards surroundings at right. 16.75 Lifts left hand; semi-supinates and lowers; again lifts and places on table top, pellet lies between middle and ring finger tips; lifts fingers, fortuitously flicking pellet with middle finger. Pronates hand on table top. (20.75 sec.)

Seconds



- A 0.5 ¶ Regards Examiner's incoming hand. Leans slightly to the left. 0.5 Extends both arms laterally, hands resting near table edge; right hand pronated, left hand partially flexed. Lifts left hand slightly and adducts 5 inches; lowers to table top; spreads fingers. 2.0 Examiner places pellet in standard median position.



- B 2.75 Regards Examiner's withdrawing hand, rotating head to the left; rotates head forward.



- C 4.25 Regards pellet. 5.5 Flexes left fingers. Lifts right hand slightly; adducts and lowers immediately to table edge, hand resting on finger tips. 6.75 Jerks left hand 3 inches toward midline; simultaneously slides right hand 2 inches to the left and pronates on table top.



- D 7.25 Regards left hand. Extends left fingers slightly. Shifts regard from pellet, then to surroundings ahead. 8.5 Abducts and elevates left hand to shoulder level; drops hand to table top. (9.0 sec.)

Seconds



- A 0.25 ¶ Turns head to the left and regards Examiner's face. Examines hands at midline. 0.25 Lowers hands to table top; disengages hands slowly and extends right index finger.



- B 1.0 Regards Examiner's incoming hand; shifts regard to Examiner's arm. Lifts left hand slightly; lowers. 2.0 Examiner places pellet in standard median position.



- C 2.25 Regards Examiner's face; shifts regard to Examiner's arm. Examines right hand momentarily. 3.75 Spreads flexed fingers of left hand on table top. Inverts right hand and lifts slightly. 4.5 Regards Examiner's face. 6.25 Slides left hand 3 inches to the left; holds pellet. Extends arm and slides hand to table edge.



- D 8.75 Lifts abducted left hand to shoulder level; adducts arm quickly bringing both hands to a symmetrically flexed position on the table (9.25 sec.)

BEHAVIOR SITUATION
CUP AND CUBES

38.5 seconds
8 phases

Normative
Age: 56 weeks
Child: B38



a 10.5 seconds



b 13.75



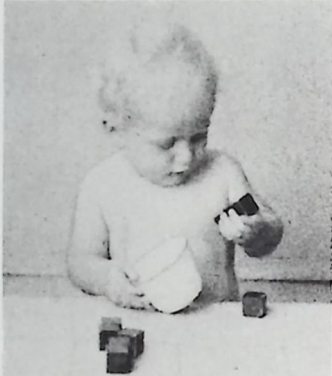
c 20.25



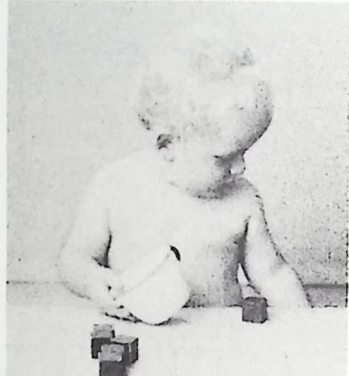
d 21.5



e 30.5



f 34.5



g 35.75



h 37.5

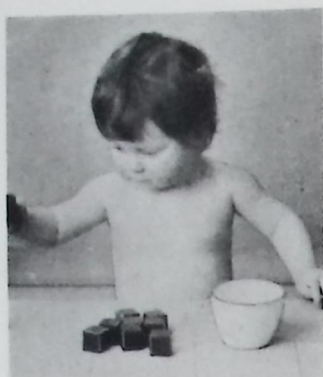
¶ Regards incoming cubes. Examiner presents cup and cubes in standard position. Approaches cubes with right hand. Regards Examiner, cubes, cup, then cubes. Grasps a cube with right hand (a); lifts cube. Regards cup. Places cube in cup (b) and releases it. Regards cubes. Grasps another cube with right hand; releases it on table top; picks up two cubes. Regards cup. Inserts both cubes into cup (c); releases cubes (d). Withdraws right hand; places hand on another cube. Regards cubes. Lifts right hand and grasps cube farthest forward. Re-

gards cup. Inserts cube into cup; starts to withdraw hand. Grasps a cube in cup and pulls cup to side. Grasps handle of cup with left hand and sets cup upright. Withdraws right hand from cup; grasps another cube and places it in cup (e); withdraws hand. Releases handle of cup from left hand; inserts right hand into cup. Grasps rim of cup with right hand. Grasps cubes in cup with left hand; lifts cubes and inspects them. Withdraws hand; lowers cubes to platform at left (g). Regards Examiner. Approaches cup with left hand. (38.5 sec.)

BEHAVIOR SITUATION
CUP AND CUBES

38.25 seconds
8 phases

Normative
Age: 52 weeks
Child: G44



→→→ a 6.75 seconds



b 9.5



c 18.5



d 19.5



e 20.0



f 23.0



g 34.5



h 38.25

¶ Regards incoming cubes. Examiner presents cup and cubes in standard position. Grasps a cube with right hand; slides it to table edge at right and releases; flexes and extends fingers over cubes; grasps another cube; lifts cube, extending arm laterally. Regards cubes at right on table top (a). Releases right-hand-cube on table top at right; again flexes and extends fingers over cubes; grasps a cube and lifts it to parietal level, supinating hand. Regards mass of cubes (b). Bangs cube on table top near edge; scatters cubes near cup with right hand; picks up another cube; lifts it to shoulder level; throws it on table top, hitting a cube.

15.0 Displaces several cubes with right hand; grasps and lifts cube; inserts it into cup (c); pulls cup to side (d); releases cup; inserts cube into cup (e); picks up another cube and inserts it into cup; releases cube. Grasps a cube from table edge at right; inserts cube into cup. 29.75 Grasps a cube and lifts it to parietal level; lowers it near table top; contacts cube in right hand at midline with left hand; withdraws left hand. Inserts right-hand-cube into cup. Lifts cup with right hand; shakes cubes from cup on platform (g). Regards cubes on platform. Lowers cup to platform; hits cubes on platform with cup (h). (38.25 sec.)

BEHAVIOR SITUATION
CUP AND CUBES

I. 25.0 seconds; 4 phases
II. 29.0 seconds; 4 phases

Normative Series
I. Age: 44 weeks
II. Age: 48 weeks



→—→ a 6.25 seconds



b 8.25



c 17.0



d 24.75

44 weeks. Regards incoming cubes. Examiner presents cup and cubes in standard position. Simultaneously grasps a cube in either hand; lifts cubes and clicks them together. Regards cup (a). Throws right-hand-cube on table top. Regards cubes. Re-grasps right-hand-cube (b) and resumes clicking; carries cubes to platform. Regards cup, then cubes. Places right hand

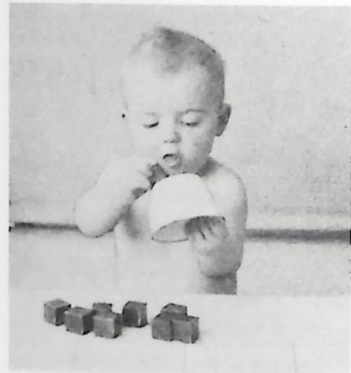
on pile of cubes and brushes them to table edge at right (c); lifts a cube and carries it to mouth. Regards surroundings right, then cubes. Places right-hand-cube on table top; releases cube momentarily; lifts cube and drops it to table top near cup. Grasps cube, pushing cup slightly to the left (d); lifts cube to mouth. (25.0 sec.)



a 4.0



b 5.25



c 23.5



d 28.5

48 weeks. Regards incoming cubes. Examiner presents cup and cubes in standard position. Grasps a cube with right hand. Regards Examiner, then cup. Lifts cup with left hand and turns it sidewise (a). Regards cubes. Releases cup and approaches cubes (b); grasps a cube and lifts it to shoulder level. Regards Examiner, then cubes. Lowers left-hand-cube. Bangs right-hand-cube on table top; combines cubes in either hand on table top. Releases right-hand-cube. Places left-hand-cube on another cube and releases it. (Cube drops to platform.) Grasps another cube with left hand. Retrieves cube from platform with

right hand; bangs it against cubes on table top; releases cube. Grasps cube and throws it on table top at right. Transfers right-hand-cube to left hand and throws it on table top at right. Grasps another cube with left hand; lifts cube and transfers to right hand. Regards cup. Grasps cup at rim with left hand; sets cup upright; lifts and inverts cup; bangs cube against bottom of cup (c). Sets cup upright on table top. Places right-hand-cube in cup (d) and pulls cup to side. Grasps cup by bottom with left hand. Removes right-hand-cube from cup. Places cube over face. (29.0 sec.)

BEHAVIOR SITUATION
CUP AND CUBES

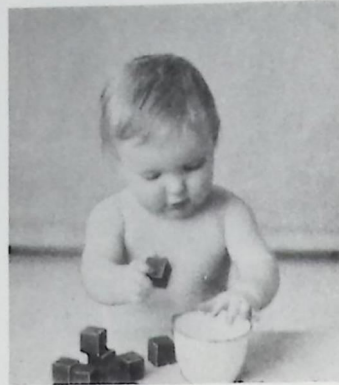
46.25 seconds

8 phases

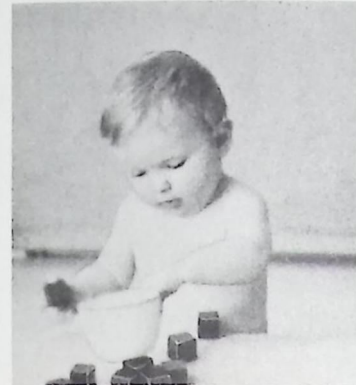
Normative
Age: 40 weeks
Child: G47



→→→ a 2.25 seconds



b 9.0



c 11.75



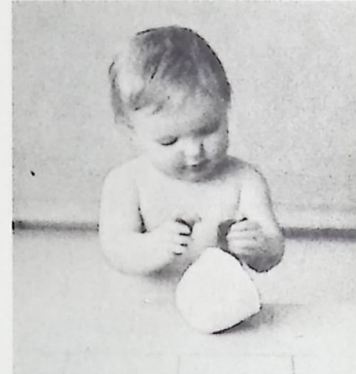
d 18.75



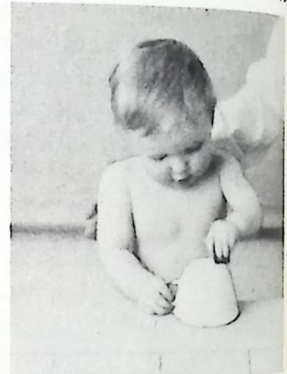
e 22.5



f 27.75



g 37.0



h 43.75

¶ Regards cubes. Examiner presents cup and cubes in standard position. Grasps a cube with right hand (a). Regards Examiner, then right-hand-cube. Releases cube on table top; picks up another cube with right hand; approaches cup with left hand and right-hand-cube (b). Pulls cup on side with left hand; bangs cup on cubes repeatedly (c); turns cup sidewise and releases it. (Cup falls to platform.) Grasps a cube with left hand. Regards cup on platform (d). Lowers right-hand-cube below table top. . . . 22.25 (Examiner commands, "Put it in the cup," and points to cup) (e). Regards cup. Holds both hands lifted, cube in right hand. Lowers left hand on cup. Examiner repeats command and gesture.) Lifts left hand from cup. Regards Examiner (f). (Examiner repeats command and gesture.)

Regards cup, then Examiner's hand. (Examiner repeats command and gesture.) Regards cup. 32.75 (Examiner withdraws cube from infant's right hand and drops it into cup.) Grasps cup with right hand; tilts cup and secures cube with left hand. Bangs cube against rim of cup, then inside cup. Releases cube from right hand and approaches left-hand-cube (g). Grasps cube inside cup, jogging cup; holds cube inside cup. . . . Inverts cup, holding handle with right hand. Bangs left-hand-cube against bottom (h). Releases handle from right hand. Bangs left-hand-cube against bottom. Releases handle from right hand. Simultaneously slaps side of cup with right hand and bangs cube against bottom of cup with left hand. (46.25 seconds)

BEHAVIOR SITUATION
CUP AND CUBES

I. 28.0 seconds; 4 phases

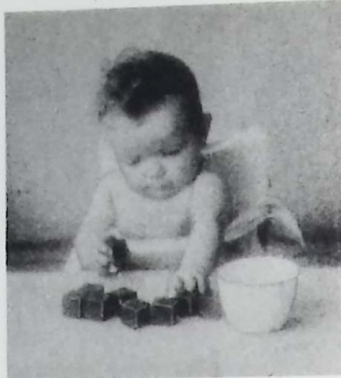
II. 20.75 seconds; 4 phases

Normative Series
I. Age: 32 weeks
II. Age: 36 weeks



→→→

a 2.0 seconds



b 4.25



c 9.5



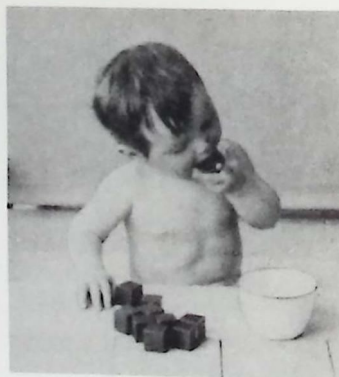
d 10.5

32 weeks. Regards cubes. Examiner presents cup and cubes in standard position. Approaches cubes with right hand (a); grasps a cube and draws it to table edge. Pushes cup forward slightly with left hand; grasps a cube. Regards right-hand-cube. Extends left arm, pushing cup and cubes to the left (b). Lifts and lowers right-hand-cube. Regards cubes, then table top at right. Releases left-hand-cube; extends and flexes fingers over cubes, pushing two cubes to the right; pronates hand on other cubes and brushes them to the left. Regards cubes at right, those at left, then cup (c). Lifts a cube with left hand (d); lowers against base of cup and pushes cup forward. Lifts cube in each hand and lowers to table top; draws hands to table edge.

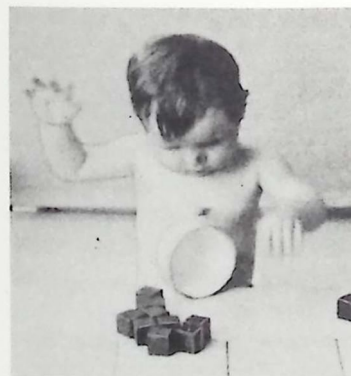
Regards cup, then surroundings at left. Lowers right-hand-cube below table top. Lifts left-hand-cube; lowers to table top; cubes at left; releases cube and scatters other cubes; grasps left-hand-cube. Regards cubes at right. . . . 20.5 (Examiner commands, "Put it in the cup," and points to cup.) Regards cubes. Brushes cup to the left with left hand. (Examiner replaces cup in position.) Regards cup. Grasps a cube in left hand. Regards left hand at table edge, then cubes. Grasps at rim and handle with left hand and turns it on side. Extends right arm laterally, hitting a cube to the right; simultaneously drags cup to the left and sets it upright. (28.0 sec.)



a 4.25



b 6.5



c 9.25



d 10.5

36 weeks. Regards Examiner. Examiner presents cup and cubes in standard position. Regards cup. Contacts rim of cup with left hand; withdraws hand and approaches cubes (a); brushes cubes toward table edge; lifts a cube and carries it to mouth (b). Regards Examiner, then cubes. Removes cube from mouth and drops it to table top. Lifts right hand. Simultaneously hits table top with right hand and cup with left hand, twirling cup on side (c); slaps table top with both hands. (Cup

falls to platform.) Hits cubes with right hand, brushing to the left. Withdraws hands to table edge. Grasps a cube with left hand and carries it to mouth; lowers cube to table top. Lifts and extends right arm laterally. Holds left-hand-cube lifted; grasps a cube with right hand (d). Drops right-hand-cube on table top and pushes two cubes to platform; pushes cubes on platform. (20.75 sec.)

BEHAVIOR SITUATION
CUP AND SPOON

I. 60.0 seconds; 8 phases

II. 65.0 seconds; 4 phases



a 2.75 seconds



b 6.5



c 14.0



d 28.75



e 39.75



f 40.0



g 51.5



h 52.0

52 weeks. Regards incoming spoon, then cup. Examiner presents cup and spoon. Grasps spoon with right hand (a); inserts spoon into cup (b); withdraws spoon; peers into cup; inserts spoon into cup. Regards spoon. Lifts and momentarily transfers spoon to left hand. Regards cup. Carries spoon to platform (c); releases spoon and grasps rim of cup with right hand; slides cup to table edge. Regards spoon. Transfers cup. Retrieves spoon; pokes spoon into cup; withdraws spoon; turns cup on side and looks within; lifts cup with left hand and carries it above platform. Contacts cup with spoon. Lowers cup to platform; lifts cup and inserts spoon; momentarily releases spoon

(d). ...30.25 First demonstration of spoon rattle. Grasps spoon with right hand. Regards cup. Transfers spoon; places spoon into cup (e) and moves it from side to side (f). Regards Examiner. Grasps rim of cup with right hand; rotates cup on side and hits spoon on table top. Regards surroundings, then cup. Lifts cup and turns it upright. Looks within cup. Hits cup over face. ...47.25 Second demonstration of spoon rattle. Grasps spoon with left hand and turns it horizontally; grasps tip of handle with right hand (g); transfers spoon to right hand (h); places spoon in cup. Regards Examiner, then cup. Hits spoon in cup responsively. (60.0 sec.)



a 4.0



b 47.25



c 50.75



d 62.75

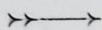
56 weeks. Regards spoon. Examiner presents cup and spoon. Grasps spoon with right hand. Grasps handle of cup with left hand; tilts cup and repeatedly hits spoon inside cup (a). Turns head to the right, then regards cup. Lifts and rotates cup to the left; hits spoon across cup. ...39.0 Second demonstration of spoon rattle. Grasps spoon with right hand. Grasps handle of cup with left hand and twirls cup; grasps rim and tilts cup for-

ward; hits spoon within cup (b); extends cup and spoon to Examiner (c). ...51.5 Third demonstration of spoon rattle. Grasps spoon with right hand. Lifts cup by handle with left hand; bangs spoon inside cup. Regards Examiner. Extends spoon to Examiner; drops spoon on table top. Re-secures spoon; releases spoon into cup (d); lowers hands below table top. (65.0 sec.)

BEHAVIOR SITUATION
CUP AND SPOON

53.5 seconds
8 phases

Page:
Normative
Age: 48 weeks
Child: G43



a 2.25 seconds



b 3.75



c 8.0



d 24.75



e 34.25



f 37.0



g 45.5



h 46.5

↳ Regards incoming spoon. 2.0 Examiner presents cup and spoon in standard median position. Regards cup and grasps handle of spoon with right hand (a); inserts spoon into cup and tilts cup from side to side (b); pulls cup sidewise with spoon. Grasps and lifts cup with left hand. Brings spoon to rim of cup (c). Regards Examiner. Hits spoon against cup. Regards cup. Brings cup to mouth; withdraws cup. Regards spoon, surroundings at right, then Examiner. Hits spoon against cup. Regards cup. Inverts cup; rubs bottom and side of cup with spoon. . . . First demonstration of spoon rattle (d). Regards spoon. Grasps handle of spoon with right hand; carries spoon to midline and transfers to left hand; re-transfers spoon to right hand; places spoon against side of cup and pushes cup to platform (e). Regards cup. Grasps cup with left hand and

lifts it above table top (f). Inserts spoon into cup; bangs spoon on table top. Regards Examiner. Lowers cup and spoon on table top; lifts cup and extends it to Examiner. . . .43.0 Second demonstration of spoon rattle. Grasps spoon with right hand and inserts it into cup; moving handle from right side (g) to left side (h); removes spoon and places it against base of cup; pushes cup forward beyond reach; sweeps spoon back and forth across table top. Strains forward and hits cup with spoon, turning cup on side. 50.5 Grasps cup with left hand; lifts and inverts. . . .52.0 Third demonstration of spoon rattle. Regards Examiner. Grasps spoon with right hand, rim of cup with left hand, and carries both to table edge. Lowers spoon to platform (53.5 sec.)

BEHAVIOR SITUATION
CUP AND SPOON

64.0 seconds

8 phases

Normative
Age: 44 weeks
Child: G-44



a 5.5 seconds



b 9.0



c 12.75



d 17.25



e 25.25



f 38.5



g 45.5



h 51.75

2.0 Regards cup. 2.0 Examiner presents cup and spoon in standard median position. Holds left arm lifted and extended laterally. Grasps rim of cup with left hand; tilts cup and looks within; inverts cup and approaches with right hand (a). Grasps cup with right hand; withdraws cup from left hand (b); lowers cup to table top. Transfers cup to right hand (c). Brings spoon to bottom of cup. Releases cup from left hand. Hits table top with spoon several times (d). . . . 19.0 Regards table top. Drops spoon and slaps table top vigorously with alternate hands. Regards cup. Lifts cup with left hand; bangs against table top. Grasps cup with right hand; inverts with both hands and carries to mouth. Regards spoon. 22.75 Releases cup from right hand and grasps spoon. Releases cup from left hand. Regards cup. Bangs spoon on table top; waves left hand synchronously. Hits spoon inside cup (e) and turns cup to upright position. Hits table top with spoon. 28.75 Drops spoon from right hand. Grasps cup with left hand and bangs it against table top. . . . 31.0 Drops cup on side on table top. Inserts handle of spoon

into cup; places right hand into cup and turns cup forward. 32.75 Grasps cup with left hand and turns it upright. Removes spoon with right hand; replaces spoon into cup. Tilts cup and drops spoon to table top. . . . First demonstration of spoon rattle. (f). Regards demonstration, Examiner, then spoon. Pulls right fingers on spoon. Regards Examiner, then spoon. Pushes spoon forward. Regards surroundings at right. 45.25 Grasps spoon by handle and inserts spoon into cup (g); pushes cup to the left; tilts spoon outward and drops it to table top. . . . Second demonstration of spoon rattle. Regards demonstration, Examiner, then cup. Grasps spoon with right hand and pulls it across circumference of cup (h). Pulls cup to side and releases spoon. Regards Examiner. . . . 55.5 Inserts spoon into cup. Releases it to the right. Moves spoon vertically in cup. Releases spoon into cup. . . . 61.25 Third demonstration of spoon rattle. Regards demonstration, Examiner, table top. Grasps spoon with right hand and sweeps across table top to plate. Extends spoon beyond rail. (64.0 sec.)

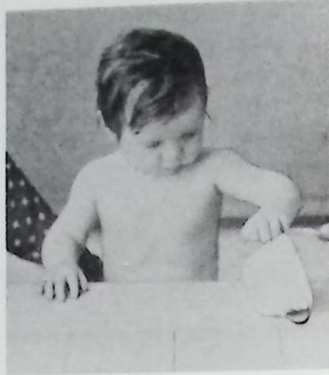
BEHAVIOR SITUATION
CUP AND SPOON

70.0 seconds
8 phases

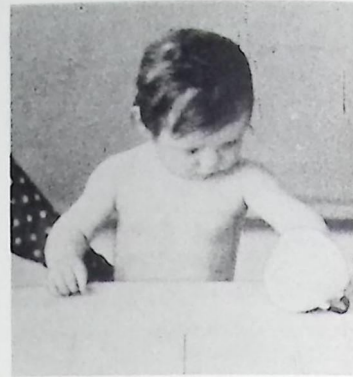
Normative
Age: 40 weeks
Child: G44



a 4.5 seconds



b 7.25



c 15.5



d 21.0



e 33.25



f 51.5



g 59.5



h 64.75

¶ Regards table top. Slaps hands simultaneously during presentation. 2.0 Examiner presents cup and spoon in standard median position. Regards cup, spoon, cup. Repeatedly lifts left hand and lowers into cup (a); slaps cup and turns it on side; places hand on side of cup (b). Regards spoon. Grasps handle of spoon with left hand; contacts cup with bowl of spoon. Regards cup. Hits handle of spoon against side of cup three times. Regards spoon. Rotates spoon to vertical position and lifts it; hits handle of spoon against table top. Regards cup. Inserts handle of spoon into cup (c). Regards spoon. Lifts spoon and rotates it to horizontal position with left hand. 18.0 Contacts bowl of spoon with right fingers. Rotates spoon to vertical position and lowers it to table top. Grasps handle of spoon with right hand. Regards cup. Transfers spoon to right hand. Grasps rim of cup with left hand; bangs cup against table top. . . . First demonstration of spoon rattle (d). Regards spoon. Closes right fingers on spoon and pushes it to left. Regards cup. Slaps spoon twice; grasps spoon and waves it at shoulder level. Pulls cup to table edge with right hand and turns it on side; hits cup repeatedly (e). Regards table top. . . 35.5 Drops spoon to platform. Regards cup. Holds cup

lifted with both hands; transfers to right hand and inverts; contacts bottom with left hand. . . 40.25 Second demonstration of spoon rattle. Regards spoon. Lifts spoon with left hand; holds vertically; carries to mouth. Turns trunk fully left; grasps rail with right hand. . . 47.0 Regards spoon. Grasps handle of spoon into cup with left hand; grasps bowl of spoon with right hand (f); lifts spoon. Regards cup. Places right hand beside cup. Hits cup with spoon in left hand. 53.75 Grasps rim of cup with right hand and sets upright. Releases spoon from left hand. Bangs cup on table top with right hand. 55.25 Third demonstration of spoon rattle. Regards spoon. Slaps spoon with right hand; grasps spoon. Regards cup. Hits cup with spoon. Holds spoon across circumference of cup (g); hits spoon against cup twice; withdraws spoon to table edge; momentarily releases spoon; grasps handle and again releases it. Regards spoon. Grasps spoon at right. . . 64.75 (Cup is on side.) Regards spoon. Grasps bowl of spoon and hits side of cup; places spoon on side of cup and draws both to table edge; slides spoon off cup, rotating it 180 degrees left; replaces spoon on cup and pushes it diagonally left forward (h); slides spoon off cup and draws it to table edge (70.0 sec.)

BEHAVIOR SITUATION CUP AND SPOON

I. 41.75 seconds; 4 phases
II. 29.0 seconds; 8 phases

Normative Series
I. Age: 32 weeks
II. Age: 36 weeks



a 4.25 seconds



b 15.75



c 33.0



d 38.5

32 weeks. Regards incoming cup. Examiner presents cup and spoon. Places hands on either side of cup and turns cup on side. Regards spoon (a), then cup. Inverts cup. Places left hand on bottom of cup. Regards spoon. Grasps spoon with left hand. Regards cup. Releases spoon and contacts cup. Regards spoon. Flexes left fingers on bowl and flips spoon. Regards cup, then spoon. Withdraws left hand; extends arm toward spoon twice

(b). Regards cup. Places left hand on bottom and turns cup on right side. . . . Examiner re-presents cup and spoon. Regards cup. Grasps rim with left hand; turns cup on side. Grasps rim with right hand; holds cup upright. Extends left arm to spoon (c); grasps handle and lifts spoon to mouth. Regards Examiner. Releases cup from right hand and grasps spoon while mouthing bowl (d). (41.75 sec.)



a 2.75



b 7.0



c 10.0



d 11.75



e 17.25



f 20.75



g 21.75



h 27.5

36 weeks. Regards incoming spoon. Examiner presents cup and spoon. Regards cup. Holds right hand extended and lifted. Grasps cup with left hand (a); rolls cup toward table edge and looks within cup. Regards Examiner. Lowers right arm to table edge. Grasps cup by handle and extends to Examiner (b); turns cup from side to side; lowers to table top. Regards cup. Grasps rim with right hand and carries cup to mouth with both hands; releases cup from left hand (c). Withdraws cup from mouth; bangs on table top and slides laterally, pushing spoon to left. Regards spoon. Repeatedly bangs cup against

table top near spoon (d). Regards cup. Grasps rim with both hands (e); places left hand on bottom of cup and holds to mouth. Replaces left hand on side of cup. . . . (Cup is beyond reach.) Grasps handle of spoon with right hand (f); lifts spoon and extends it toward cup (g). Regards cup. Hits end of handle on table top prolongedly; strains toward cup with spoon. Withdraws left arm and transfers spoon to left hand (h); withdraws spoon. Grasps handle with right hand and resumes banging of spoon on table top. (29.0 sec.)

SPOON

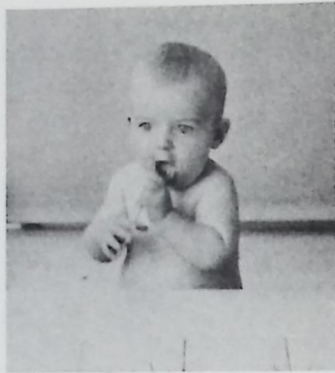
25.25 seconds

4 phases

Seconds



A 3.5 ¶ Regards incoming spoon. Holds hands 4 inches above table top. 1.25 Lifts hands to chest level and approaches bilaterally. 2.0 Examiner places spoon in standard median position. Immediately places right fingers over end of handle; brushes handle to right; 3.5 grasps by encircling fingers around handle; lifts vertically to chest level, bowl outwardly rotated. 4.75 Grasps bowl with left hand.



B 6.0 Carries spoon to mouth; transfers to left hand; contacts junction of bowl and handle with right hand. 5.5 Regards surroundings ahead, then at right. Withdraws right hand. 9.25 Bites into mouth's bowl. Regards surroundings ahead, at right, ahead, at right. 11.0 Turns trunk 90 degrees right and leans on right hand. 14.5 Sits erect. Regards surroundings ahead. 14.75 Transfers spoon to right hand and holds laterally 5 inches above table top. Rests left hand on ulnar surface at midline. Regards spoon. Lowers spoon to table edge.



C 16.75 Transfers spoon to left hand, grasping end of handle; bangs bowl on table top; 18.0 hits hand against table top.



D 19.25 Bangs bowl against table top four times. 22.5 Rotates bowl forward to vertical position and grasps bowl with right hand. 25.0 Transfers spoon to right hand and carries to mouth. 25.25 Contacts handle with left hand. Regards surroundings ahead. (25.25 seconds)

Seconds



- A 4.5 ¶ Regards incoming spoon. Pronates right hand at table edge, arm semi-flexed; left hand at midline, arm extended. Approaches spoon with right hand; 1.75 places hand over spoon as Examiner places spoon in standard median position. Shifts spoon 2 inches right; grasps handle and turns bowl outward; turns bowl inward. 4.5 Waves spoon at crown level; 5.25 bangs spoon on table top at midline. Regards surroundings. 5.5 Regards Examiner intently. 9.75 Shifts regard to spoon.



- B 11.75 Transfers spoon to left hand, grasping bowl.




- C 13.5 Inspects handle while rotating it 165 degrees left and back to horizontal position; turns bowl inward and rotates handle right to horizontal position; rotates handle 120 degrees left. 17.75 Regards Examiner. 18.5 Rotates spoon 30 degrees farther left. 19.75 Approaches spoon with right hand. Rotates spoon right; grasps end of handle with right hand.

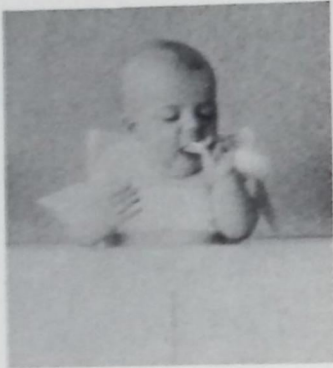


- D 22.0 Carries handle to mouth; lifts to horizontal position with both hands. Regards Examiner. (22.25 sec.)

Seconds



- A 3.0  Regards incoming spoon. Holds left hand cupped at table edge; rests right forearm on table top, hand open. 0.5 Pronates right hand; 1.5 Approaches bilaterally, lifting hands to chest level; pronates right hand; 3 inches right of spoon, index finger lifted. 2.0 Examiner places spoon in standard median position. 2.25 Makes an abortive loop approach with left hand; slides hand to spoon on finger tips; 3.0 pushes spoon to right with thumb and index finger; closes hand and slides left; spreads fingers, moving spoon farther right with thumb, index and middle fingers; grasps handle with thumb and index finger, other fingers flexed; carries handle to mouth. 5.75 Regards table top. 6.5 Lifts right hand to chest.



- B 7.25 Mouths end of handle vigorously. 7.5 Adjusts grasp by encircling left fingers around handle; removes spoon from mouth; rotates handle 90 degrees right to horizontal position. 8.75 Grasps bowl with right hand and rotates to vertical position. Regards spoon.



- C 10.25 Transfers spoon to right hand, grasping junction of bowl and handle. Holds left hand supinated.

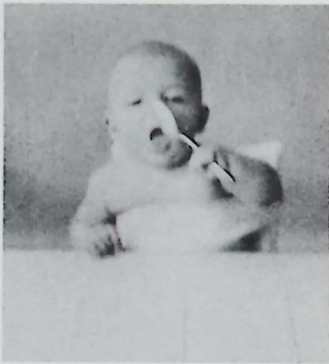


- D 12.25 Inspects spoon while rotating it 180 degrees right to horizontal position; momentarily relaxes grasp, end of handle falls to table top; resecures grasp; turns spoon right side up; lowers end of handle to table top; drops spoon. (16.0 sec.)

Seconds



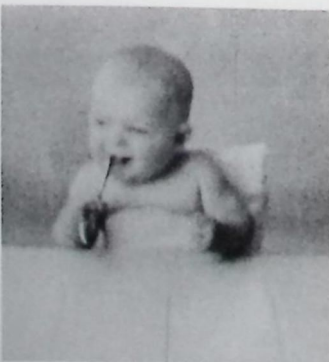
E 8.5 Lifts and rotates spoon outward; carries to mouth; drops on chest. Regards table top, then surroundings ahead. 10.5 Holds bowl vertically and outwardly rotated at eye level. Regards bowl.



F 12.0 Repeatedly attempts to place bowl into mouth. 14.0 Lowers spoon to chest level; fingers bowl with right hand; places right hand on table edge. Regards table top, then surroundings at left. Attempts to place bowl into mouth; lowers spoon to chest level. 18.5 Lifts right hand to cheek.



G 19.25 Transfers spoon to right hand, grasping back of bowl below tip. . . 19.75 Places handle in mouth.



H 20.5 Mouths handle. Regards surroundings ahead, table top, surroundings at right, then table top. 21.75 Removes handle from mouth; grasps bowl with left hand; holds upright, both hands resting on table top. Regards hands, then handle. Tips handle forward. 25.0 Transfers spoon to left hand. Mouths handle. Regards surroundings ahead, then surroundings ahead. (29.75 sec.)

BEHAVIOR SITUATION

SPOON

29.75 seconds

8 phases

Normative Series

Age: 24 weeks

Child: B34

Seconds



A 2.75 ¶ Regards incoming spoon. Extends arms forward, right hand cupped on table top, left hand pronated near table edge. 0.75 Shifts regard to Examiner's hand, then to spoon. 1.0 Approaches spoon bilaterally; lowers hands near spoon. Makes a loop approach with right hand, placing hand beside handle. 2.0 Examiner places spoon in standard median position. Makes a double loop approach with left hand; lowers closed hand on handle. Regards hands. 2.75 Quickly lifts and spreads right fingers; lowers to table top and contacts left hand. Extends left fingers and pushes spoon forward. 3.75 Regards bowl, then handle. Slides hands apart.



B 4.75 Pats table top alternately with both hands; places left middle fingers on end of handle, pronates right hand near handle. Lifts right hand and places it 5 inches right of midline. 5.25 Rotates spoon slightly right with left middle finger; flexes fingers and flips spoon. Regards bowl.



C 6.75 Again extends and flexes left fingers on handle and drags spoon 3 inches left.



D 8.0 Grasps handle between left middle and ring fingers and drags spoon laterally.

Seconds



E 19.0 Places right hand over spoon. Regards right hand.



F 20.75 Inverts and drags spoon to table edge. Regards handle. 22.75 Turns head right and regards surroundings. Extends right fingers; flexes over handle.



G 24.5 Spreads right fingers; relaxes fingers beside handle.



H 26.25 Lifts right hand to chest level and brushes spoon to table edge. Regards table top. (26.5 sec.)

BEHAVIOR SITUATION

SPOON

26.5 seconds

8 phases

Normative Series

Age: 20 weeks

Child: B34

Seconds



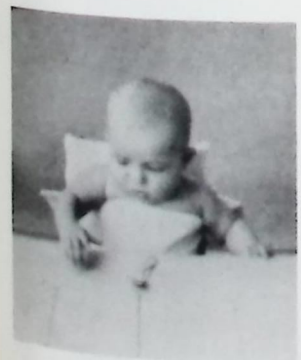
A 3.5 ¶ Regards incoming spoon. Rests fistful right hand on table top; left hand on table edge. Spreads right fingers and makes a double loop approach toward spoon. 2.0 Examiner places spoon in standard median position. Inverts and lifts right hand; lowers ulnar surface of hand on table top; 3.5 makes a second loop approach and contacts end of handle with middle and ring fingers; pronates hand. 4.0 Raises left hand on finger tips and slides hand slightly left, rests on table edge. 4.5 Regards table top, spoon, then table top.



B 6.5 Approaches spoon with a double loop approach of right hand; slides hand to table edge at midline; lifts hand to chest level. 7.5 Regards spoon. Slides left hand slightly right; lifts and lowers three times. 9.75 Regards table top. 11.25 Examiner places spoon in near median position. Regards Examiner's hand. Spreads right fingers and slides hand toward spoon.



C 12.0 Contacts end of handle with right thumb and index finger, and pushes spoon slightly left. Regards handle. . . 12.25 Lifts right hand; abducts and lowers to table top. Regards surroundings at right. 14.0 Shifts regard to handle. Slides right hand toward spoon; opens hand and approaches spoon.

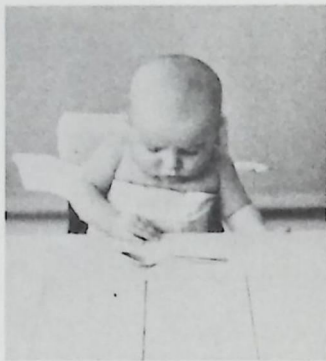


D 15.5 Shifts regard to right hand. . . 16.5 Places closed right hand on table top at midline. Drops left hand below table top. Regards handle, then surroundings at right. Slowly slides right hand laterally, index finger extended. 18.5 Examiner replaces spoon in near median position. Regards Examiner's hand.

Seconds



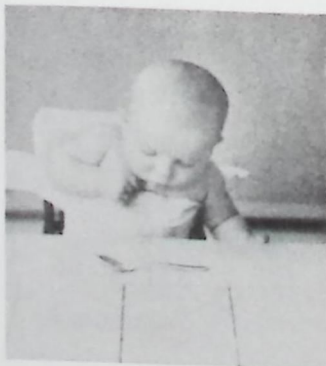
E 13.5 Shifts regard to handle. Lowers right hand to table top. 13.75
Regards table top at left.



F 15.5 Suddenly adducts right hand to table edge, brushing spoon handle
90 degrees left. Regards spoon.



G 16.75 Moves right hand forward slightly, contacting bowl with little fin
ger. Regards bowl; shifts regard to handle.

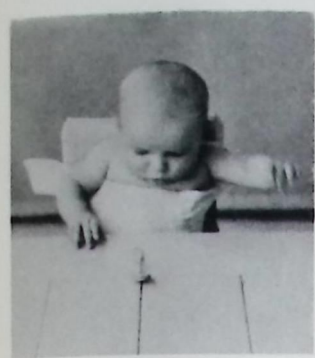


H 18.0 Lifts right hand to chin; lowers to table edge. Regards bowl
20.5 Turns head left and regards table top. 21.5 Regards bowl
hand. 22.0 Waves right hand at crown level; lowers to table top
23.5 Regards bowl, then table top. (24.5 sec.)

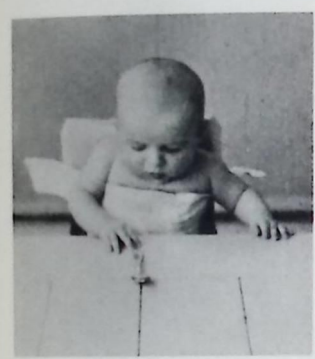
BEHAVIOR SITUATION
SPOON
24.5 seconds
8 phases

Normative Series
Age: 16 weeks
Child: B34

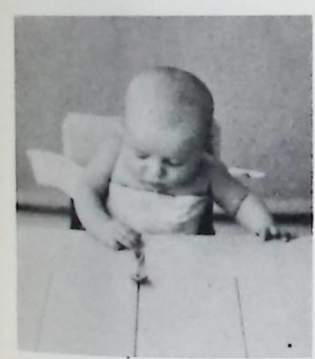
Seconds



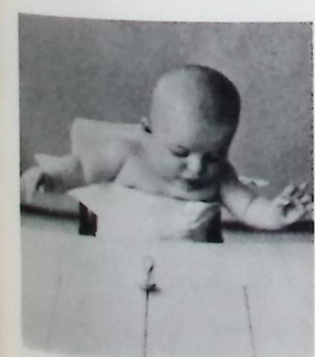
A 3.75 ¶ Regards incoming spoon. Rests right hand on table top, arm semi-flexed; left hand at table edge, arm extended. 0.5 Regards Examiner's hand. Slides right hand toward midline. 1.5 Shifts regard to handle. 2.0 Examiner places spoon in standard median position. Regards table top. Lifts left hand to shoulder level; lowers left hand to table edge and simultaneously abducts right hand 5 inches left of midline. 3.75 Waves left hand at shoulder level; lowers to table edge. Momentarily regards spoon bowl, then table top. 5.0 Lifts and abducts right hand; lowers 6 inches right of midline. Lifts left hand slightly and lowers to table edge. 6.0 Regards bowl.



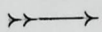
B 6.75 Slides right hand to midline and contacts end of handle with middle finger. Regards handle, then table top.



C 7.75 Regards right hand, then table top. Lifts and abducts right hand. 8.5 Regards handle.



D 9.0 Simultaneously rotates right hand downward and lifts left hand, extending wrist. Regards table top. Lowers left hand to table edge. 10.75 Lifts both hands; lowers left hand below table edge. 11.5 Regards left hand. Holds right hand lifted, arm semi-flexed. 12.5 Regards Examiner's arm. 13.5 Examiner places spoon in near median position.



a 2.75 seconds



b 9.75



c 12.25



d 16.75



e 18.0



f 19.75



g 21.75



h 27.5

↳ Regards incoming cup immediately. Extends left arm forward, hand resting pronate on table top. Holds right arm flexed, hand on lower chest. Abducts and extends right arm; approaches cup with thumb fully extended and with fingers in ulnar deviation. 2.0 Examiner presents cup in standard median position. Regards handle of cup; shifts regard to bowl. Approaches handle of cup with right hand; adjusts approach to handle (a); contacts bottom of cup with pronate right hand. 4.5 Adducts left hand, contacting side of cup. 5.25 Drags cup to right toward table edge; readjusts contact of right hand; drags cup 2 inches to the left; removes hand and contacts handle; replaces hand on side of cup; lifts cup slightly; lowers to table top; tilts to the left; lowers to table top. Bangs cup on table top, holding it with both hands, arms in full extension (b); slides cup to and fro on table top (c). 14.5 Partially releases grasp and then re-grasps cup with both hands; lifts cup 4 inches above table

top; brings it with banging and sidewise motion against table top. 16.0 Regards surroundings ahead, then cup. Grasps cup with left hand and drags cup to extreme left (d); pulls cup to midline and relaxes grasp of both hands (cup falls to side) (e); applies right hand to bowl (cup falls to side) (f); re-grasps cup with left hand over rim and right hand at side (g); mildly manipulates bowl. 23.25 Regards bowl of cup. Drags cup to the left with both hands; relaxes left hand momentarily. Holds cup by rim with right hand; applies left hand to rim and right hand at side; applies left hand to rim and right hand at side. 27.5 Re-grasps cup with left hand over rim and right hand at side. Releases cup from right hand. Suspend cup with left thumb in full extension and thrusts arm laterally in full extension and cup up and down. (31.25 sec.)



a 1.0 second



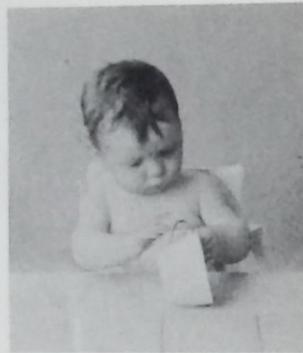
b 2.0



c 7.25



d 8.0



e 14.75



f 18.25



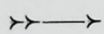
g 20.0



h 21.25

¶ Regards cup immediately. Lifts both arms in semi-extension. Thrusts left hand forward in full extension; fingers rim of cup. Holds right hand flexed. Places left hand pronately on bottom of cup (a). 2.0 Examiner presents cup in standard median position. Extends right hand toward cup (b); places hand on side and bottom of cup; simultaneously releases left hand. Extends and abducts left arm; places hand on side and bottom of cup. 4.75 Regards handle. 7.25 Withdraws right hand and grasps handle. Releases cup from left hand (c). Utilizing handle, rotates cup counter-clockwise and extends left hand toward cup (d); grasps rim of cup with left hand. Re-

leases handle from right hand. 13.0 Partially rotates cup; grasps rim of cup with right hand; withdraws hand. Grasps rim of cup with left hand; rotates cup to side position. Approaches handle with right hand (e); grasps handle. Opens mouth. Lifts cup to mouth, using both hands momentarily. Mouths handle, regarding surroundings ahead. Withdraws left hand and, utilizing handle, holds cup 3 inches above table top; peers into cup (f). 19.5 Abducts left hand; grasps rim of cup. Releases handle from right hand. Opens mouth. Regards surroundings (g). Mouths handle (h). (21.25 sec.)



a 0.25 second



b 2.0



c 4.0



d 6.25



e 8.0



f 11.5



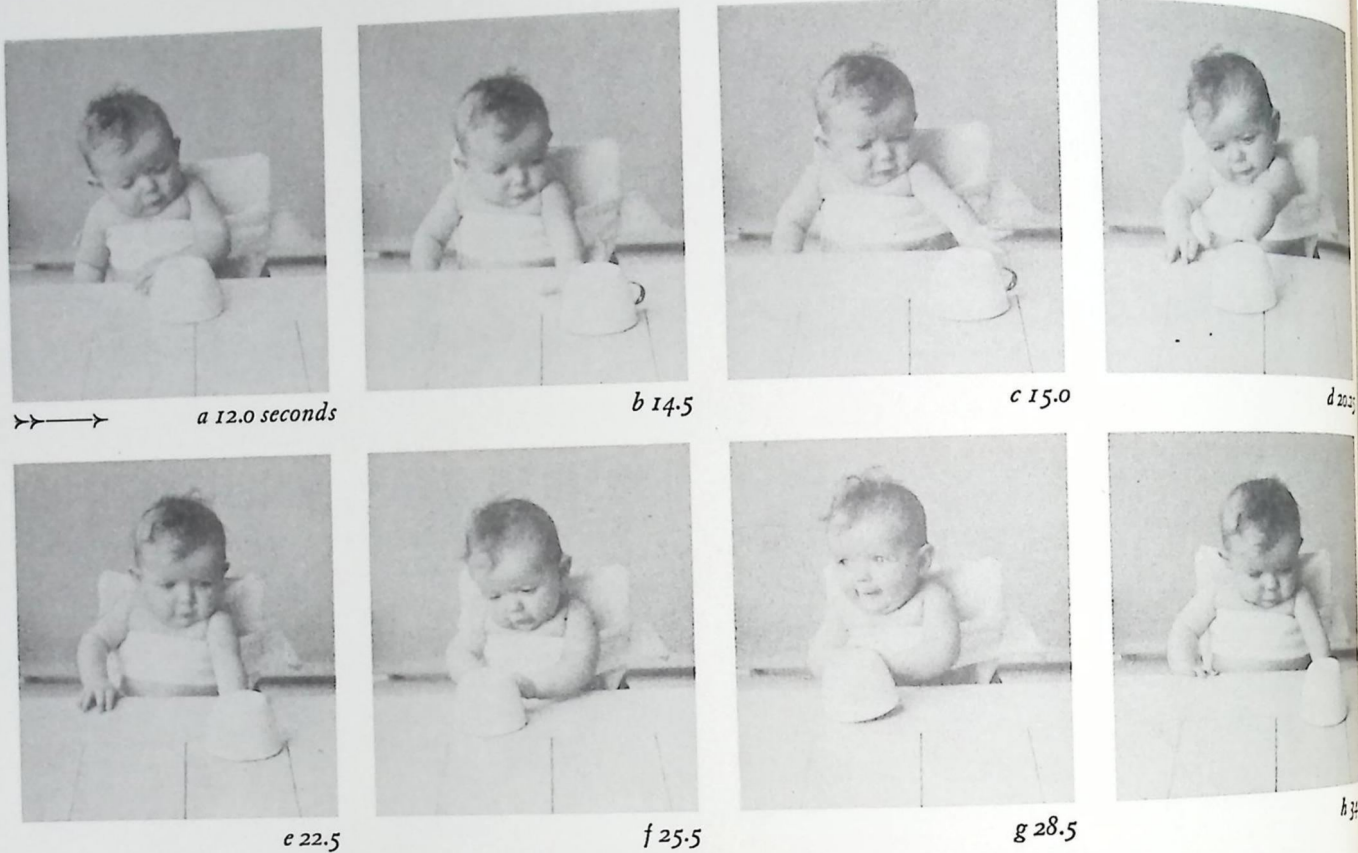
g 13.25



h 15.75

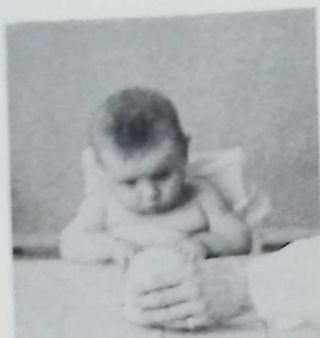
¶ Regards cup immediately. Extends both arms forward, hands resting pronate on table top. Abducts and lifts both arms. Strains forward toward cup with arms in full extension (a). 2.0 Examiner presents cup in standard median position. Contacts sides of cup with both hands as cup is placed in position; grasps cup, right fingers under rim (b); lifts cup momentarily above table top; rotates cup until it rests on handle (c). Opens mouth wide. By further rotation and lifting with both hands, brings rim of cup to mouth; withdraws cup from mouth, regarding it continuously; lowers cup to table top. Withdraws left hand momentarily and replaces it on side and rim of cup (d). 7.0 Opens mouth. Lifts cup with both hands. Begins to mouth rim of cup (e). Relaxes right hand grasp momentarily and

drops cup to table top; re-grasps rim with right hand; withdraws right hand and replaces it on side of cup. Rotates cup with both hands, bottom resting on table top; mouths rim (f). 10.0 Withdraws right hand and re-grasps rim with left hand. Re-grasps rim and handle with left hand and mouths handle, maintaining regard for cup. Withdraws right hand. Holds cup with left hand at handle. 16.75 Replaces right hand; brings handle to mouth; withdraws handle from mouth, maintaining regard for handle. (21.75 sec.)



↳ Regards incoming cup. Leans slightly to the right; holds hands below table edge. Lifts and adducts left arm. 2.0 Examiner presents cup in standard median position. Abducts and lifts left arm to lower chest level; semi-pronates hand; lowers hand; 3.0 brings arm to full extension, but fails to contact cup; 9.0 reaches persistently; fusses with failure to secure cup. 21.0 Examiner places cup in near median position. Regards cup immediately. Flexed left hand rests on table top, right hand under table edge (a). Extends left arm and pushes cup to the left (b); adducts and semi-pronates left hand; regards cup (c); places hand on table top. Regards surroundings at right, then cup. 17.0 Extends left arm forward, hand pronate; fails to contact cup; fusses again; adducts and lifts hand to lower chest level. . . . 18.75 Holds both hands on table top. Regards incoming cup immediately. Extends and lifts left arm; semi-pronates hand. 20.25 Examiner replaces cup in near median position. Pronates hand

and contacts bottom of cup. Face assumes animation. Pushes cup 4 inches to the left with left hand; grasps handle of cup (e); drags cup 7 inches to the right. 25.5 Adducts left arm and contacts cup with right hand (f). Opens mouth. Drags cup toward table edge. Shifts regard to surroundings at right. Partly lifts cup for a moment (g). 29.25 Looks to left, returning cup to position on table top; shifts regard to right. Extends left arm and drags cup 7 inches to the left (h); contacts cup 7 inches to the right. 36.0 Examiner replaces cup in median position. Regards cup; grasps cup with both hands; lifts cup by handle to mouth, tilted edge resting on table top. 39.5 Regards surroundings ahead. Mouths handle of cup. 42.75 Lowers cup to table top; pushes cup 5 inches laterally with left hand; drags cup 10 inches to the right; contacts cup to midline. (47.75 sec.)



a 2.0 seconds



b 3.5



c 4.25



d 5.0



e 8.25



f 9.0



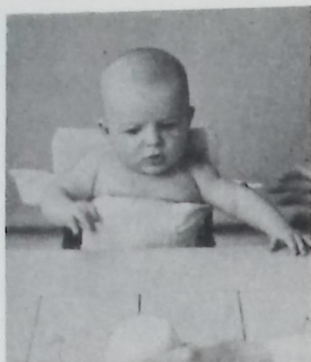
g 9.5



h 11.0

§ Regards incoming cup immediately. Arms are semi-flexed and hands pronated on table top. Adducts left hand slightly as Examiner presents cup in standard median position (a). Lifts flexed right hand to shoulder level (b); lowers hand to table top (c); abducts arm and brings hand to semi-supinated position. 5.0 Lifts right arm to shoulder level; lowers to table top; abducts right arm and lifts to parietal level (d). Abducts flexed left arm slightly. Lowers right hand to table top 6 inches right of midline (e); lifts hand to ear level and lowers to table top

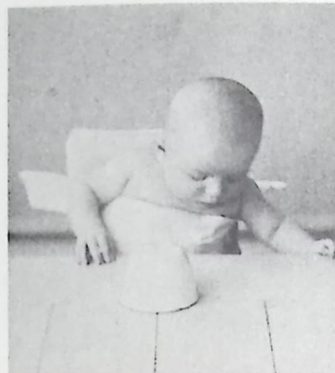
near cup; lifts arm to parietal level; lowers hand near cup; 11.0 lifts hand to parietal level (f); lowers to table top. 11.25 Adds cup with right hand and pushes it to the left (g); abducts hand 6 inches right of midline (h); extends and lifts hand to shoulder level; lowers to table top. 11.25 Adducts pronated left hand; extends semi-flexed arm. 13.25 Lifts right arm to shoulder level; lowers hand; 14.0 lifts hand to parietal level; lowers to table top (15.0 sec.)



→ → → a 0.5 second



b 2.0



c 5.5



d 8.5



e 12.5



f 13.25



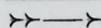
g 14.5



h 15.25

¶ Regards incoming cube intently. Holds right arm flexed, hand pronated and lifted to chest level; left arm extended, hand pronated on table top (a). 2.0 Smiles as Examiner presents cup in standard median position. Abducts right arm; trunk slumps slightly to the left. Both arms become slightly active; regards cup (b). 2.75 Lowers right arm to table top, rotating forearm 40 degrees downward; lowers arm to table top. Shifts regard to table top at left (c). Both arms continue activity with slight shifting, abduction, and supination. Erects head; lifts right hand; regards cup (d). Lowers right arm; extends arm for-

ward and abducts; pronates hand on table top. 11.25 Examiner places cup in near median position. Lifts right hand. Regards table top (e). 13.25 Lowers right hand to table top. Contacts cup with right hand and pushes it toward the left (f). Regards cup (g). Abducts right arm (h); extends and lifts right arm to shoulder level; retracts hand; lowers hand to table top. 19.25 Lifts and abducts right arm. Lifts both hands to mid chest level. Lowers left hand to table top. (24.25 sec.)



a 1.0 second



b 3.25



c 4.5



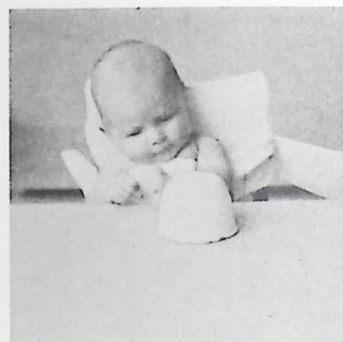
d 18.5



e 23.0



f 23.75



g 24.0



h 24.75

§ Regards Examiner's incoming hand. Leans to the right, hands contacting over chest. Adducts arms and extends them laterally. Regards cup. Lifts left arm (a). Extends and adducts both arms; hands contact at midline. 2.0 Examiner presents cup in standard median position. Regards hands; shifts regard to table top, then to surroundings at left (b). Rests right hand on table top. Abducts both arms. Regards extended right hand (c). Adducts both arms with sustained regard and smiling. Hands contact at midline. 7.25 Regards table top; turns head to left and regards Examiner. Examiner places cup in near median position. 9.5 Regards Examiner's withdrawing hand momentarily, then table top; regards surroundings at left with

slight bobbing of head. 12.0 Extends and lifts right hand, left hand. Regards cup. 12.75 Adducts hands. Regards surroundings ahead. 13.5 Abducts hands. Regards table top, surroundings ahead. 14.5 Adducts hands, contacting them momentarily; abducts hands. Momentarily regards cup, then surroundings at left. 16.5 Lifts right hand, contacting hands on chest. Regards cup (d). Slightly lifts and lowers left hand, maintaining contact with right hand. Regards hands (e); shifts regard to cup (f). Abducts hands (g). Shifts regard to surroundings at left. Extends and lifts arms to shoulder level (17.5 sec.) adducts arms; brings right hand pronately to table top.

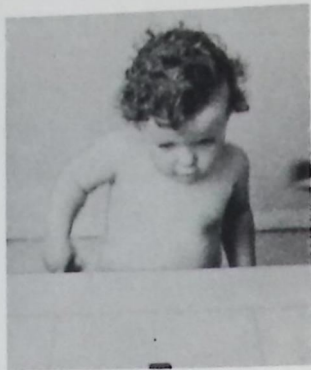
BEHAVIOR SITUATION
TOWER BUILDING

21.75 seconds

4 phases

Normative Score
Age: 56 weeks
Child: G48

Seconds



- A 7.0 ¶ Regards foundation cube in near median position. Holds left hand at side below table top. Accepts cube in right hand from Examiner. Shifts regard to tower model in standard median position. 2.75 Withdraws right-hand-cube to chest; lowers to platform. 3.75 Regards Examiner. 4.75 shifts regard to tower model. Releases right-hand-cube on platform. Lifts hand and grasps foundation cube; 7.0 carries cube to platform. Regards cube on platform at right. . . . 8.0 Tower model is placed in near median position. Holds left hand at table edge. Approaches tower with right-hand-cube; places cube on tower.



- B 9.25 Dislodges top cube with right-hand-cube; lifts and places right-hand-cube on foundation cube; removes right-hand-cube and places on top cube; 11.75 momentarily releases cube; again grasps cube; lifts and places cube on top cube.



- C 14.0 Releases right-hand-cube on top cube after successful placement and completes tower; lifts hand with fingers outspread; grasps foundation cube.



- D 16.75 Places foundation cube on tower momentarily; withdraws cube 12 inches to the right and releases on table top; 19.0 grasps top cube; lifts and bangs against bottom cube. 20.0 Regards Examiner. Slides top cube off bottom cube; replaces. Regards top cube. (21.75 sec.)

BEHAVIOR SITUATION
TOWER BUILDING

22.25 seconds
8 phases

Normative S
Age: 52 weeks
Child: G48

Seconds

E 17.0 Immediately grasps top cube with right hand.



F 17.5 Lifts top cube 3 inches.



G 18.0 Replaces top cube on foundation cube.



H 18.5 Releases cube from right hand; spreads fingers and withdraws hand to side of trunk. Lowers both hands below table top. Smiling regards Examiner; shifts regard to tower. (22.25 sec.)



BEHAVIOR SITUATION TOWER BUILDING

22.25 seconds
8 phases

Normative Series
Age: 52 weeks
Child: G48

Seconds



A 3.0 ¶ Regards Examiner's hand adjusting tower model. Leans on left hand pronated on table top, arm extended. Holds right hand at side below table top. 2.0 Examiner places tower model in standard median position. 3.0 Approaches tower with right hand, placing hand on table top at midline. 4.5 Examiner places foundation cube in near median position. Approaches cube with right hand during placement; withdraws hand below table top. Regards foundation cube, tower, then foundation cube. Draws left hand to table edge at midline. 6.5 Regards cube offered by Examiner. 8.0 Accepts cube with right hand. Regards tower.



B 9.25 Releases right-hand-cube on table top; lifts hand, spreading fingers, and approaches foundation cube.



C 10.25 (Examiner points to foundation cube.) Lowers right hand and taps released cube with index finger; pronates hand on both cubes.



D 11.0 Brushes both cubes 4 inches to the right without secular. 11.75 (Examiner picks up tower model.) Regards tower. Lifts right hand to chest level; withdraws hand to trunk at diaphragm level. ... 13.0 Examiner begins to place tower in near median position. Pronates right hand on table top, fingers spread. 13.5 Approaches with left hand; pushes tower forward before Examiner releases it; lowers hand to table top near tower. 15.5 Approaches tower with right hand as Examiner adjusts top cube.

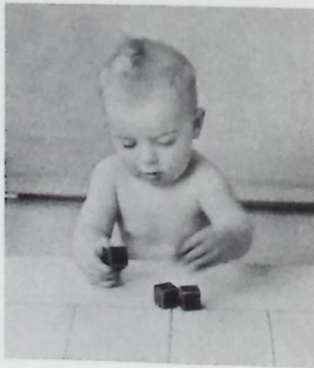
Seconds



- E 11.0 Re-presentation of tower model in near median position. Holds cube in either hand; rests right hand on table top, left hand at table edge. Approaches tower with left-hand-cube.



- F 11.75 Releases left-hand-cube at left of tower; grasps top cube and slides it partly off foundation cube.



- G 12.25 Removes top cube and carries it to table edge at left. Regrades foundation cube. Holds top cube in semi-supinated left hand; rotates wrist downward and taps cube on table top; lifts cube and approaches cubes on table top.



- H 15.4 Hits side of left cube on table top and releases cube from left hand; displaces all cubes; grasps middle cube; lifts and abducts, brushes left cube to the left; lifts and holds cube in left hand. Regrades middle cube on table top. (16.75 sec.)

BEHAVIOR SITUATION TOWER BUILDING

16.75 seconds
8 phases

Normative Series

Age: 48 weeks

Child: B34

Seconds



A 3.25 ¶ Regards tower model. Holds a cube in either hand while resting hands on table top. 2.0 Examiner places tower in near median position. 2.5 Releases left-hand-cube and approaches tower; 3.25 removes top cube; carries to side at left. 4.0 Regards foundation cube, top cube in left hand, then foundation cube. 5.0 Hits foundation cube with top cube and displaces it slightly to the right.



B 5.5 Places top cube over foundation cube with left hand; pivots top cube to the right.



C 6.5 Presses top cube against foundation cube, and dislodges both cubes.



D 7.25 Again brings top cube over foundation cube; lowers top cube behind foundation cube and draws both to table edge; 9.5 lifts top cube to mouth. Regards Examiner.

BEHAVIOR SITUATION
TOWER BUILDING

18.5 seconds
4 phases

Seconds



- A 2.25 ¶ Regards Examiner's hand adjusting tower model. Rests right hand at table edge. Holds cube against chest with left hand. 1.75 Regards Examiner. Carries left-hand-cube to mouth. 2.0 Examiner places tower in near median position. 2.25 (Examiner points to tower.) Shifts regard to tower. Removes cube from mouth. . . . 5.0 Holds cube in supinated left hand above table top. Grasps cube from table top with right hand; slides cube to tower foundation.



- B 5.5 Pushes off top cube with right-hand-cube; brushes foundation cube 5 inches to the right. 6.0 Regards top cube; shifts regard to foundation cube.



- C 6.75 Sweeps table top twice with right-hand-cube, brushing foundation cube beyond reach 11 inches to the right. 7.5 Lifts left-hand-cube. Again sweeps table top with right-hand-cube. 8.25 Regards top cube. Slides right-hand-cube toward top cube; continues to sweep cube toward the right, then back and forth near foundation cube. 9.0 Regards foundation cube, then top cube. 10.5 Extends left-hand-cube toward top cube. Turns toward foundation cube; extends both arms on table top and begins to climb on table top. . . 12.0 Re-presentation of tower model in near median position.



- D 12.25 (Examiner points to tower model.) Regards Examiner intently. Holds left-hand-cube in mouth, right-hand-cube on table top. 13.0 Shifts regard to tower. Removes cube from mouth. (Examiner again points to tower.) 14.0 Regards Examiner's hand. Lowers left-hand-cube to table top. 15.0 Regards tower; 18.0 shifts regard to Examiner. Lifts left-hand-cube to mouth. (18.5 sec.)

BEHAVIOR SITUATION
MASSED CUBES

I. 43.0 seconds; 4 phases
II. 21.0 seconds; 4 phases
III. 25.0 seconds; 4 phases

Normative Series
I. Age: 48 weeks
II. Age: 52 weeks
III. Age: 60 weeks

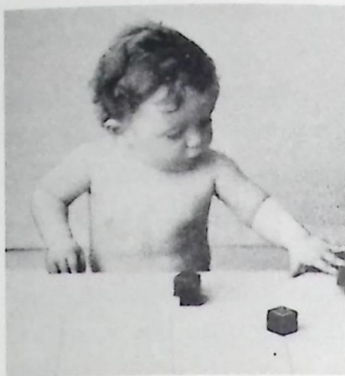


>>—>

a 4.75 seconds



b 12.0



c 21.5



d 26.25

48 weeks. Regards screen. Examiner presents cubes in standard median position. Grasps screen with both hands. Regards cubes. Approaches cubes bilaterally; pushes top cube to table top and grasps it with right hand (a). Slides two cubes to left with left hand, then slides three more cubes to left; pushes cubes to table edge (b); pushes two more cubes to left; grasps one

cube and slides it laterally; releases cube; grasps two cubes and slides them to left; releases cubes and pushes four cubes to platform (c); pushes another cube to platform. Lifts two cubes with left hand and brings them to midline. Combines cubes with both hands at midline (d). Transfers left-hand-cubes to right hand; pursues cubes on platform with left hand. (43.0 sec.)



a 2.75



b 4.5



c 11.5



d 15.5

52 weeks. Regards screen. Grasps screen with right hand. Examiner presents cubes in standard median position. Regards cubes. Releases screen (a). Approaches cubes with left hand, then with right hand; pats cubes simultaneously with both hands. Withdraws three cubes with left hand (b). Places right hand on three cubes and slides them to right; pushes three more cubes

to right; brushes cubes farther to table edge; pushes one cube to platform. Regards surroundings, cubes on platform, then cubes on table top. Lifts right hand and places it on two more cubes (c), pushing them to platform. Regards cubes on platform; then those on table top. Pushes another cube off table top with right hand (d); places hand on two cubes. (21.0 sec.)



a 2.5



b 10.5



c 12.5



d 22.5

60 weeks. Regards screen. Grasps screen with right hand. Examiner presents cubes in standard median position. Regards cubes. Approaches cubes with left hand. Releases screen (a). Lowers right hand and approaches cubes bilaterally; contacts first row of cubes; withdraws hands to trunk; again approaches cubes bilaterally and grasps end cubes of first row; lifts three

cubes (b); lowers to table top (c); releases cubes. Pokes cube, turning it over with right index finger; repeats poking; turning of two other cubes; places index finger on a cube and slides it toward table edge. Regards Examiner, then continues. Turns another cube twice with right index finger; continues scatter and turn cubes (d). (25.0 sec.)

BEHAVIOR SITUATION
MASSED CUBES

I. 28.25 seconds; 4 phases
II. 40.0 seconds; 4 phases
III. 36.5 seconds; 4 phases

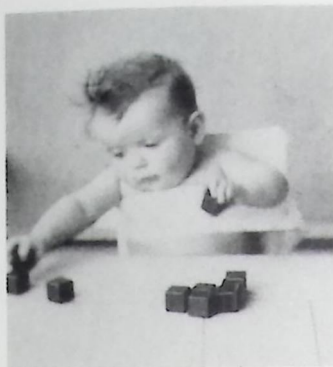
Normative Series
I. Age: 36 weeks Child: C
II. Age: 40 weeks Child: C
III. Age: 44 weeks Child: C



a 4.0 seconds



b 13.5



c 15.75



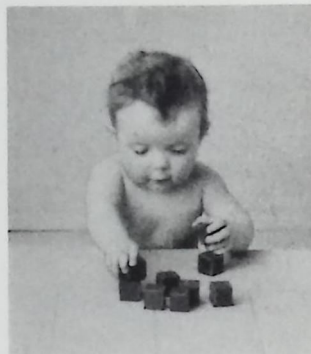
d 19.5

36 weeks. Regards screen. Examiner presents cubes in standard median position. Reaches for withdrawing screen with left hand; simultaneously lowers right hand on top cube (a). Regards cubes. Carries right-hand-cube to midline and transfers it to left hand. Pushes one cube to the right while lifting two cubes with right hand (b); bangs cubes against table top; drops

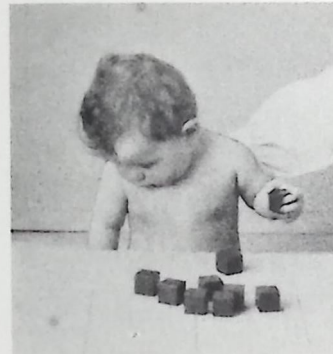
one cube; bangs cube on table top near dropped cube (c); combines cubes in hands at midline. Extends right arm laterally and releases cube; reaches for cube at extreme right, then for nearer cube, contacting it with finger tips (d); pronates hand on table top. Regards massed cubes. Hits a cube to the right with left-hand-cube; lifts cube. (28.25 sec.)



a 14.75



b 19.25



c 24.75



d 25.5

40 weeks. Regards screen. Examiner presents cubes in standard median position. Grasps screen with both hands. Regards withdrawing screen, then Examiner. Reaches toward Examiner with left hand. Regards cubes. Disarranges cubes with left hand, pushing two cubes to the left (a); lifts one cube; hits it against table top; withdraws both hands off table top. Grasps

cube with right hand (b); hits cube against table top; bangs cubes in hands alternately on table top; withdraws cubes; drops right-hand-cube to platform; pursues cube (c); retrieves cube (d); bangs cubes simultaneously, frequently hitting cubes on table top; slides cubes in hands to table edge, pushing another cube to platform. Releases right-hand-cube. (40.0 sec.)



a 7.25



b 11.75



c 18.75



d 35.0

44 weeks. Regards screen. Grasps screen with both hands. Examiner presents cubes in standard median position. Regards withdrawing screen, then cubes. Waves right hand, hitting massed cubes occasionally and displacing them slightly (a). Pushes massed cubes slightly to the right with left hand; withdraws both hands (b) and slaps cubes simultaneously with both

hands. Grasps a cube in either hand and draws cubes off table edge to platform; replaces cubes on table top (c); hits cubes against table top repeatedly. Releases left-hand-cube; pats cubes with left hand; bangs right-hand-cube on table top (d). Lifts two cubes with left hand; hits cubes against table top. Throws right-hand-cube on platform. (36.5 sec.)

BEHAVIOR SITUATION
MASSED CUBES

- I. 20.25 seconds; 4 phases
- II. 31.75 seconds; 4 phases
- III. 31.25 seconds; 4 phases

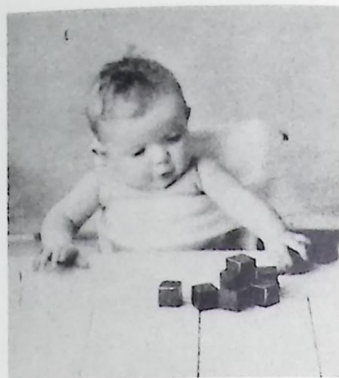
Normative Series
I. Age: 24 weeks Child
II. Age: 28 weeks Child
III. Age: 32 weeks Child



>—> a 2.0 seconds



b 3.25



c 4.5



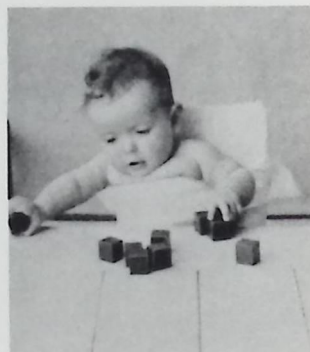
d 13.5

24 weeks. Regards screen (a). Examiner presents cubes in standard median position. Extends left arm forward. Regards cubes. Pronates left hand on table top; places hand on right corner of mass (b); slides hand laterally, pushing two cubes to table edge and disarranging others (c); lifts a cube from table edge and places it near mass. Slides right hand near midline.

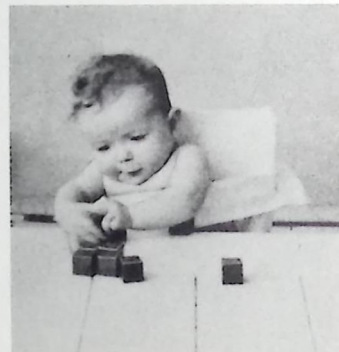
Withdraws both hands to table edge. Abducts and adducts left-hand-cube; releases cube near mass; pronates hand; thrusts hand laterally and hits two cubes to the left; pronates hand; lifts hand, fingers extended (d); lowers to table top; loops hand to the right; slides hand to the left. Regards surroundings left. (20.25 sec.)



a 1.75



b 4.75



c 16.0



d 31.5

28 weeks. Regards cubes. Examiner presents cubes in standard median position. Approaches cubes with left hand (a). Disarranges cubes with right hand. Slides four cubes to table edge with left hand. Grasps a cube with right hand and bangs it on table top; slides hand laterally to table edge (b); adducts hands. Releases left-hand-cube; grasps another cube. Slides right-hand-

cube across table top repeatedly. Hits cubes in hands together at midline; releases right-hand-cube and brushes it to platform (c). Releases left-hand-cube; grasps another cube and pushes five cubes to the right; slides one cube to the left; slaps hands on table top. Pronates right hand. Strains toward cubes with left hand (d). Regards surroundings. (31.75 sec.)



a 8.25



b 11.0



c 12.0



d 26.5

32 weeks. Regards screen. Examiner presents cubes in standard median position. Regards Examiner's withdrawing hand, then cubes. Grasps two cubes with right hand. Pronates left hand on cubes and brushes two cubes to the left (a). Lifts a cube in either hand (b). Abducts left-hand-cube to right hand, pushing a cube on table top to the right (c). Lifts right-hand-cube to

mouth. Regards surroundings at right. Lowers both cubes on table top on either side of third cube; draws third cube toward table edge; withdraws cubes; extends cubes forward on table top. Pushes a cube to platform with right-hand-cube. Releases left-hand-cube on table top. Sweeps right hand laterally, scattering cubes; releases cube (d); re-grasps and lifts cube. (31.25 sec.)

BEHAVIOR SITUATION
MASSED CUBES

I. 25.5 seconds; 4 phases
II. 32.75 seconds; 4 phases

Normative Series
I. Age: 16 weeks
II. Age: 20 weeks



→→→ a 1.0 second



b 3.5



c 5.0



d 12.0

16 weeks. Regards right hand pronated on table top. Trunk slumps to the left; head is tilted to the left. Examiner presents cubes in standard median position (a). Lowers left hand below table top; lifts hand slightly and again lowers. Regards cubes (b). Lifts right hand slightly; lowers to table top. Regards right hand prolongedly (c). Lifts and extends right fingers; lowers to table top. Examiner places cubes in near median posi-

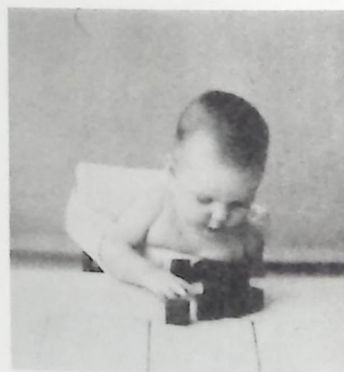
tion. Regards cubes. Abducts right arm (d); lowers hand to table top; lifts hand; lowers slightly; holds hand lifted. Begins to fuss. Lifts right hand to shoulder level. Regards table top then cubes. Pronates right hand on table top. Regards right hand, table top, then cubes. Taps table top with right fingers. Regards right hand (25.5 sec.)



a 4.25



b 18.0



c 23.25



d 31.25

20 weeks. Regards table top at left. Examiner presents cubes in standard median position. Holds left hand below table top, right hand on table top. Contacts corner cube with right fingers; displaces cube. Regards cubes. Withdraws right hand; lifts and lowers hand; lifts hand to shoulder level (a); lowers to table top; again lifts and lowers hand; slides hand to table edge; makes a loop approach to cubes; slides hand forward; withdraws hand. Examiner places cubes in near median position. Slides

right hand to cubes and pushes them to the left (b); disarranges mass; slides hand farther left with further disarray of cubes (c); lifts and abducts arm; lowers hand to table top; withdraws hand to table edge at right; slaps hand among cubes and scatters them (d); lifts and abducts hand to shoulder level (d); lowers to table edge. Lifts left hand; lowers to table edge. Regards left hand (32.75 sec.)

BEHAVIOR SITUATION
CONSECUTIVE CUBES

I. 67.75 seconds; 8 phases
II. 47.5 seconds; 4 phases

Normative Series
I. Age: 52 weeks
II. Age: 56 weeks



a 25.25 seconds



b 26.25



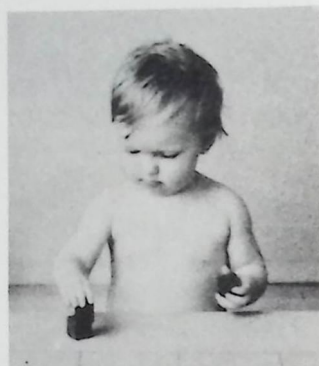
c 34.75



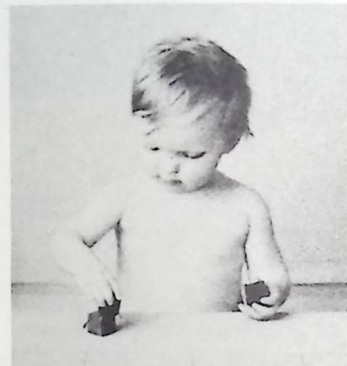
d 38.0



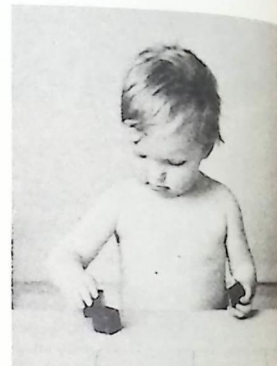
e 57.5



f 58.0



g 60.5



h 61.75

52 weeks. Regards cube. Examiner presents cube. Grasps cube with both hands; transfers to left hand, then to right; releases on table top; grasps and lifts with right hand; transfers to left hand. Regards incoming cube. Examiner presents second cube. Grasps second cube with right hand (a); lifts and places cube end to end with left-hand-cube (b); lowers both to table top; slides right-hand-cube laterally and lifts. Withdraws left hand (c); grasps right-hand-cube and lowers it to table top with both hands; simultaneously releases cube from both hands (d); withdraws hands and regards surroundings at right. Grasps

cube in each hand. Regards incoming cube. Releases right-hand-cube, then left-hand-cube, and approaches bilaterally. Examiner presents third cube. Grasps third cube with right hand and re-grasps left-hand-cube; momentarily relaxes left-hand-grasp. Lifts both cubes; carries right-hand-cube to second cube; places corner of right-hand-cube on third cube (e); rotates second cube downward, placing right-hand-cube on third cube (f); slides right-hand-cube laterally to table top; pushes third cube medially with right-hand-cube; replaces right-hand-cube on third cube (g); slides cube over third cube (h) and to table top. (67.75 sec)



a 23.0



b 25.5



c 26.75



d 45.5

56 weeks. Regards incoming cube. Grasps cube with left hand; transfers to right hand; bangs on table; drops to table; grasps with left hand. ... Regards incoming cube. Examiner presents second cube. Places left-hand-cube on edge of second cube (a); pushes cube to table top; replaces cube on second cube; contacts with right hand; releases tower (b). Turns head to

right; withdraws right hand and re-grasps tower with left hand (c); lifts and abducts top cube with left hand. ... Approaches third cube with cubes in hands. Examiner presents third cube. Taps second cube with left-hand-cube, then right-hand-cube; grasps both; places left-hand-cube on second cube and holds right-hand-cube against top cube (d); lifts and abducts cubes. (47.5 sec)



a 2.25 seconds



b 6.5



c 24.25



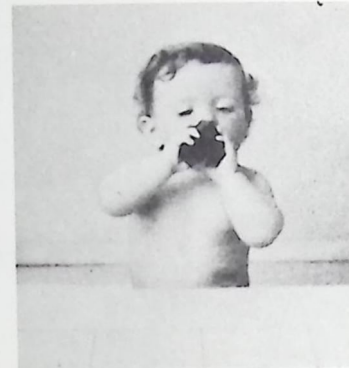
d 28.0



e 32.5



f 46.0



g 58.25



h 65.0

↳ Regards incoming cube. Holds hands at sides of trunk. Examiner presents cube in standard median position. Approaches cube and immediately grasps it with right hand (a); lifts cube and grasps it with left hand. Regards surroundings at left. Transfers cube to left hand (b). Places right hand on table top. Extends cube in left hand laterally and approaches it with right hand. Regards cube. 8.75 Grasps cube with right hand and lowers it with both hands. Regards surroundings at left. 12.25 Transfers cube to right hand. Regards cube, then surroundings at right. Taps cube on platform; carries to platform at right. Turns head and trunk to right. Brings cube to table edge and sweeps it to right above platform. 16.75 Turns head and trunk to left and regards surroundings. Holds cube above table top. Transfers cube to left hand. Pronates right hand on table top. Slides cube to table edge. Lifts right hand. . . . 21.75 Regards incoming cube. Holds cube with both hands. 24.0 Examiner presents second cube in standard median position. Approaches bilaterally, grasping second cube with left hand and placing right-hand-cube beside it (c). Slides cubes to table edge and lifts it to chest level. Regards Examiner. Clicks cubes to-

gether three times above table top (d), then places them end to end and carries them to right (e); lowers cubes to table edge; drops left-hand-cube to platform; pursues cube with right-hand-cube and left hand. Regards cube on platform, then table top. 42.0 Transfers cube to left hand; lifts and transfers it to right hand. . . . 45.0 Regards incoming cube. Holds cube in right hand at table edge. Approaches bilaterally during presentation (f). 47.5 Examiner presents third cube in standard median position. Places cubes near third cube and slides cubes in hands to table edge. Lifts cubes and quickly lowers left-hand-cube near third cube, right-hand-cube on table top; withdraws cubes, slides in third cube; lifts cubes and replaces near third cube; slides cubes to table edge; 52.5 lifts hands to shoulder level and holds cubes on table top twice; holds cubes poised; taps them on table top; lowers them beside third cube and lifts three cubes (g); rotates wrist downward and drops one cube to platform; lowers two cubes, dropping right-hand-cube to table top; starts to pursue cube on platform; grasps cube on table top with right hand; pushes left-hand-cube and pushes it to platform; pursues cubes below table top (h). (67.75 sec.)

BEHAVIOR SITUATION
CONSECUTIVE CUBES

62.25 seconds
8 phases

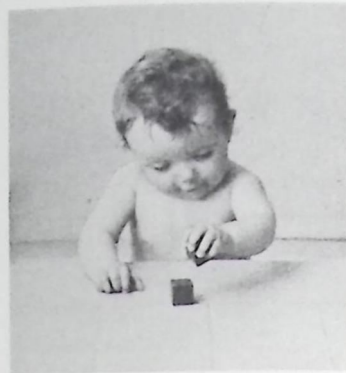
Normative
Age: 44 weeks
Child: G-8



→ → → a 2.25 seconds



b 7.75



c 24.0



d 28.75



e 35.25



f 44.5



g 55.75



h 56.5

↳ Regards incoming cube. Approaches cube with right hand during presentation and immediately grasps it (a). Rubs cube on table top; taps cube lightly on table top. 7.0 Lifts cube and transfers it to left hand; bangs cube on table top four times (b). Lifts left hand. Transfers cube to right hand and bangs on table top; simultaneously slaps table top with left hand; holds left hand on table top and continues to bang with right-hand-cube. 12.5 Turns head and trunk to the left and regards surroundings. Holds cube lifted in right hand. 16.0 Regards cube, then turns head to the right and regards surroundings. Carries cube to platform. ...21.0 Regards incoming cube. Holds left-hand-cube near table edge, right hand above table top. Approaches cube bilaterally, placing left-hand-cube near second cube. Bangs left-hand-cube on table top. 23.75 Examiner presents second cube in standard median position. Hits second cube with left-hand-cube and moves it to right (c); slides left-hand-cube off table top. Regards left-hand-cube. 26.5 Places left hand and right-hand-cube on table top at midline and slides both forward, pushing second cube beyond reach. Regards second cube. Strains forward and places right index finger on second cube but without secular (d); contacts cube with extended left little finger and rolls second cube farther to the right; with difficulty grasps

cube in right hand and carries it to mouth; carries left-hand-cube to right hand. 35.0 Removes right-hand-cube from mouth and inspects it (e); drops right-hand-cube to table top; grasps left-hand-cube and carries it below table top with both hands. Regards cube on table top. 38.75 Approaches bilaterally, slapping table top with right hand and placing left-hand-cube on cube on table top; pivots left-hand-cube on table top. Re-grasps cubes with right hand and lifts cube in each hand. Regards cubes in hands. ...41.0 Regards incoming cube. Holds cube in right hand on table top. Approaches with right-hand-cube. Examiner presents third cube in standard median position. Slides right-hand-cube to table edge. Places cubes in hands near table edge (f); pushes third cube forward, then to right. Regards cubes in hands. Slides cubes to table edge. Regards third cube. 47.75 Lifts and extends arms forward, contacting and displacing third cube with left-hand-cube; slides cubes to table edge; places cubes near third cube and withdraws hands to table top. Regards cubes in hands. Waves cubes and places them on table top. Lifts and extends arms forward, placing left-hand-cube on side third cube (g); pushes third cube laterally off table top and pursues cube on platform. (62.25 sec.)

BEHAVIOR SITUATION
CONSECUTIVE CUBES

84.75 seconds
8 phases

Page: 10
Normative Score:
Age: 40 weeks
Child: G31



a 7.0 seconds



b 12.0



c 19.75



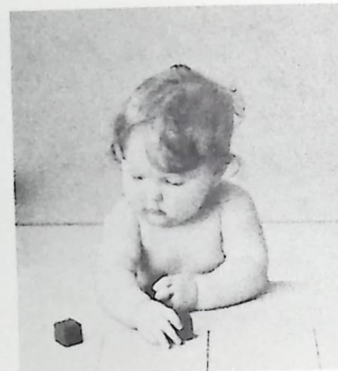
d 47.5



e 55.25



f 81.0



g 81.75



h 84.25

↳ Regards incoming cube. Extends and flexes right fingers at chest level three times. Examiner presents cube in standard median position. 5.25 Approaches cube with right hand; withdraws hand, lowering elbow to table top; simultaneously approaches and grasps cube with left hand (a). Slides cube toward table edge; contacts cube with right index finger; lifts cube with both hands. Regards Examiner. 11.5 Transfers cube to right hand (b); inspects cube prolongedly, lifting and lowering it as trunk sways back and forth. Holds cube with both hands. Tilts head backward and regards surroundings at right. 19.0 Transfers cube to left hand. Extends both arms fully. Lifts right arm to crown level and approaches left-hand-cube (c); grasps cube and carries it to left with both hands. Regards surroundings at left; turns head and regards surroundings at right. 22.0 Releases cube from right hand. Sweeps cube in left hand toward right, contacting right hand. Lowers both hands. Pats right hand with cube twice. . . . 25.5 Taps cube on table top. Regards cube. Lifts cube and grasps with right hand. Regards surroundings at right. Releases cube from right hand. Regards surroundings at left. . . . 32.0 Slaps table top three times with right hand. Regards table top, then surroundings at right. Waves right hand. Lifts left hand to upper chest level. . . . 34.0 Lowers left-hand-cube to table top. Slaps table top six

times with right hand. 36.0 Carries left-hand-cube to right hand; lifts cube and grasps with both hands. . . . 37.25 Regards incoming cube. Examiner presents second cube in standard median position. Lowers both hands near cube; withdraws hands. Regards Examiner, then second cube. Places right index finger over second cube but again withdraws hand; grasps cube with right hand (d), and taps on table top several times. Combines cubes and lifts to shoulder level; lowers cubes slightly and holds apart; clicks cubes together. Leans forward on elbows and re-grasps cube with right hand; lifts both cubes to shoulder level. . . . 62.75 Regards incoming cube. Examiner presents third cube in standard median position. Releases right-hand-cube on table top and approaches third cube; contacts cube with index finger and thumb, arm resting on cube just released; moves arm backward and slides cube off table top. Regards cube on platform; regards surroundings at right, cube on platform. Retrieves cube from platform and releases on table top near third cube; re-grasps cube and lifts. Regards third cube. Clicks cubes in hands. Releases right-hand-cube, everting hand (f); grasps third cube with left hand; regards second cube (g); lifts cube and places on table top near table edge; releases cube, turning it from side to side (h). Pushes cube to platform. (84.75 sec.)

BEHAVIOR SITUATION
CONSECUTIVE CUBES

57.0 seconds
8 phases

Page
Normative Series
Age: 36 weeks
Child: G31



a 2.25 seconds



b 7.5



c 11.5



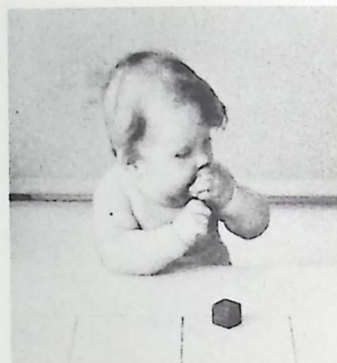
d 23.75



e 28.0



f 36.5



g 45.5



h 47.0

¶ Regards incoming cube. Examiner presents cube in standard median position. Approaches bilaterally, grasping cube with left hand and contacting it with right index finger (a). Lifts cube and transfers it to right hand; inspects cube (b); withdraws left hand. 9.25 Extends and flexes right wrist twice; places cube on table top 6 inches right of midline; simultaneously pronates left hand (c). 14.5 Lifts cube and grasps with left hand; carries to mouth with both hands. Regards surroundings ahead. . . 19.0 Regards cube held in left hand on table top. Regards incoming cube. Withdraws left-hand-cube and approaches second cube twice. Examiner presents second cube in standard median position. Contacts second cube with left-hand-cube; withdraws left-hand-cube; transfers to right hand (d), and approaches second cube with left hand, placing hand near cube. 26.0 Displaces second cube with right-hand-cube; abducts and lifts right-hand-cube. Places left hand on second cube (e); removes hand and grasps left-hand-cube. Regards surroundings ahead, at left, then table top. Carries cube to mouth with both hands. Regards Examiner's incoming hand, then second cube.

34.5 Examiner places second cube in near median position. Approaches cube with left hand; retracts hand to table edge and again approaches cube, placing hand near cube. With right-hand-cube pushes second cube toward pronated left hand (f) grasps second cube with left hand and lifts both cubes. . . 38.5 Examiner presents third cube in standard median position. Regards incoming cube. Approaches with left-hand-cube, placing cube besides third cube and pushing it diagonally left forward. 42.5 Lifts cubes, placing left-hand-cube in mouth, right-hand-cube contacting left hand (g). Regards Examiner, then third cube. Lowers right-hand-cube. Regards Examiner, then third cube. Approaches third cube with right-hand-cube; holds edge of right-hand-cube against third cube and pushes it laterally (h); withdraws and lifts right-hand-cube; places right-hand-cube besides third cube and pushes it farther. Regards Examiner's incoming hand. 54.0 Examiner places third cube in near median position. Regards third cube. Approaches third cube with right-hand-cube; lifts right-hand-cube. Removes left-hand-cube from mouth. (57.0 sec.)

BEHAVIOR SITUATION CONSECUTIVE CUBES

52.75 seconds
8 phases

Normative Series
Age: 32 weeks
Child: G31



a 2.25 seconds



b 3.0



c 4.5



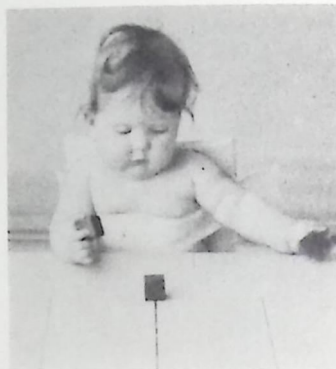
d 10.25



e 17.75



f 19.0



g 39.0



h 49.5

¶ Regards incoming cube. Approaches cube with left hand and withdraws it from Examiner's hand. Rotates left wrist, pivoting cube on corner, while regarding Examiner's withdrawing hand (a). Regards cube. Lifts cube; approaches cube with right hand, semi-supinating hand as index finger contacts cube (b); places right hand on left and inspects cube (c). 5.5 Withdraws and replaces right hand; carries cube to mouth. Vigorously mouths cube, turning head to left and regarding Examiner (d). 9.5 Lowers right hand; replaces on left wrist. . . 14.5 Examiner presents second cube in standard median position. Removes cube from mouth. Regards incoming cube. Approaches cube with right hand and immediately grasps it (e). Lifts second cube. Shifts regard to left-hand-cube. Brings right-hand-cube against left fingers (f); hits left hand twice with right-hand-cube. 22.0 Holds cubes poised; regards right-hand-cube. Combines cubes at midline; rubs them together. Regards left-hand-cube, then turns head and regards surroundings at right.

Continues to hold cubes against each other. 28.0 Turns head forward and regards left-hand-cube. Lifts left-hand-cube and again brings cubes into combination. Regards surroundings at right. Hits cubes together at midline. . . 34.0 Examiner presents third cube in standard median position. Holds cube in each hand above table top. Regards incoming cube. Lowers left-hand-cube near third cube; slides hand laterally to table edge (g); approaches third cube, pushing it slightly to the right; again withdraws left-hand-cube to table edge; places cube on third cube and sweeps both 6 inches left; pulls left-hand-cube to table top (h). Regards third cube. 44.25 Adducts and lifts left-hand-cube. Regards left-hand-cube. 47.0 Approaches third cube with left-hand-cube and pushes it forward. Withdraws left-hand-cube to table edge. 49.25 Regards right-hand-cube. Bangs left-hand-cube on table top. Sweeps left-hand-cube laterally; bangs it repeatedly against table top. Regards Examiner (52.75 sec.)

BEHAVIOR SITUATION
CONSECUTIVE CUBES

66.0 seconds
8 phases



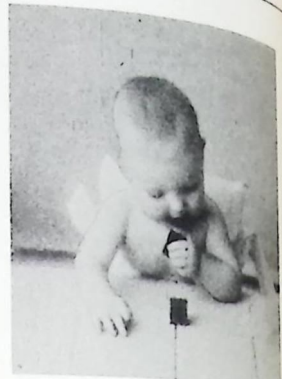
a 2.75 seconds



b 7.0



c 11.25



d 26.75



e 27.75



f 28.75



g 50.25



h 56.0

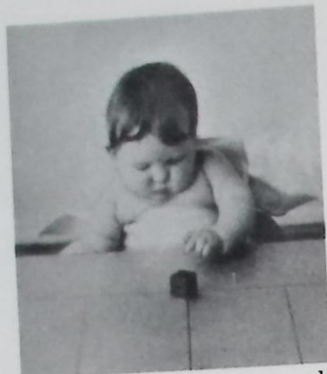
§ Regards incoming cube. Rests pronated hands on table top, arms extended. Examiner presents cube in standard median position. Quickly slides left hand to the right, pushing cube toward right hand; grasps cube with both hands (a). Withdraws cube from right hand; slowly abducts cube (b); carries to midline and contacts with right hand; carries to mouth (c). Semi-supinates right hand. 11.5 Regards right hand, surroundings at left, then table top. Pronates right hand on table top. 16.0 Withdraws cube from mouth with left hand. Regards cube. 17.75 Fingers cube with right hand. 23.5 Places right fingers over left and carries cube to mouth with both hands. 24.5 Examiner presents second cube in standard median position. Regards Examiner's hand, then second cube. Immediately approaches cube with right hand and withdraws cube from mouth (d). Drops cube from left hand; lowers hand to table top; extends fingers and hits second cube beyond reach (e). Slides left fingers under right hand. Regards second cube. Strains forward and makes several bilateral approaches to second cube (f).

34.25 Examiner places second cube in near median position. Begins to approach second cube but pronates hand beyond cube. Regards left hand, second cube, then turns head and regards surroundings at left. ... 38.75 Holds right thumb with left thumb and index finger; lifts left hand and places on right side of chest. Continues to stare at surroundings at left. ... 41.5 Corals right hand against chest with left hand. Regards table top. Slides right hand laterally to table edge. 43.5 Grasps second cube with left hand and lifts above table top. Regards cube in hand. Carries cube to mouth. Regards surroundings ahead. ... 48.5 Examiner presents third cube in standard median position. Holds cube in each hand at mouth (g). Regards right-hand-cube. Lowers both cubes. Regards left-hand-cube. Lowers right-hand-cube against third cube and pushes both to left. Abducts right-hand-cube slightly (h). Bangs right-hand-cube against left-hand-cube, then on table top near third cube. Holds cubes in combination, sliding them against each other. (66.0 sec.)

BEHAVIOR SITUATION
CONSECUTIVE CUBES

75.5 seconds
8 phases

Page 2
Normative Series
Age: 24 weeks
Child: G31



a 7.25 seconds



b 12.75



c 20.5



d 24.75



e 48.5



f 54.0



g 60.5



h 62.5

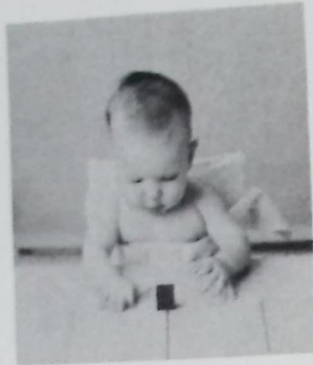
↳ Regards incoming cube. Examiner presents cube in standard median position. Leans to the right; left hand pronated on table top, right hand below table. 4.0 Regards table top, cube, table top, cube, table top. Makes a loop approach to cube with left hand (a). Regards cube. Pronates left hand. Regards Examiner's hand. 11.0 Examiner places cube in near median position. Regards cube. Lifts left hand slightly; extends fingers and pushes cube forward; again approaches cube (b), pushing it to right. . . 18.25 Holds cube with left hand at table edge; slides cube to right; grasps with both hands (c). Withdraws right hand, sliding hand laterally along table edge. 22.75 Lifts and turns cube with left hand. Slides right hand medially and grasps left-hand-cube; carries cube to mouth with both hands (d). . . 28.25 Examiner presents second cube in standard median position. Regards second cube. 33.0 Lowers cube from mouth, withdrawing right hand; re-grasps cube with right hand. Approaches second cube with right hand; re-grasps left-hand-cube and carries to mouth with both hands. 42.75 Lifts head and regards surroundings at right. Mouths cube. 44.25 Examiner places second cube in near median position. Regards second cube. 46.0 Lowers right fingers to table top. Regards right hand. Lowers left-hand-cube, pushing second cube forward; re-

leases left-hand-cube (e). 48.75 Regards second cube. Moves first cube to right with left hand. Regards first cube; pushes cube farther to right. Slides right hand laterally, pushing first cube toward table edge. . . 53.75 Grasps first cube with right hand; regards second cube (f). Slides right-hand-cube medially and approaches with left hand; regards right-hand-cube. Abducts hands. . . 56.0 Holds right-hand-cube on table top. left-hand-cube at mouth. Regards incoming cube. 58.75 Examiner presents third cube in standard median position. Then moves cube from mouth; releases cube. Regards table top, then third cube. Approaches third cube with left hand (g). Grasps right-hand-cube with both hands. Regards right-hand-cube. Transfers cube to left hand and lifts; contacts with right hand. Examiner places third cube in near median position. Regards left hand on table top, pushing third cube to left; drops left-hand-cube; pushes cube to right. 71.5 Regards third cube, then right-hand-cube. Abducts both hands, hitting third cube and brushing it beyond reach. Pronates left hand on table top. Regards third cube. (75.5 sec.)

BEHAVIOR SITUATION
CONSECUTIVE CUBES

74.25 seconds
8 phases

Page 12
Normative Series
Age: 20 weeks
Child: G47



a 2.5 seconds



b 3.25



c 11.5



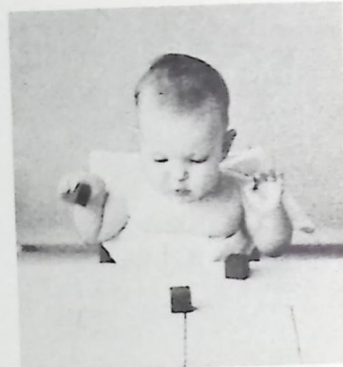
d 12.25



e 34.75



f 49.0



g 61.0



h 68.25

↳ Regards incoming cube. Approaches bilaterally (a). Slides right hand toward cube and pushes it to left hand (b). 4.75 Withdraws left hand; spreads fingers and pronates hand. Withdraws right hand; again approaches cube. 6.5 Regards right hand. Makes a loop approach toward cube with right hand. 7.0 Regards cube. 8.25 Hits cube with left index and middle fingers, moving it 1 inch to the right; simultaneously lifts and abducts right hand; pronates both hands near cube. 11.5 Examiner places cube in near median position. Regards Examiner's hand. Shifts regard to cube (c). Adducts right hand and pushes cube toward table edge (d). 13.5 Regards right hand. Pronates right hand on table top. 15.0 Turns head and regards surroundings at left. 18.0 Regards cube. Extends arms and slides hands laterally. Adducts right hand, pushing cube to table edge; abducts hand; slides hand to cube and grasps it. 23.0 Regards left hand, flexing and extending fingers. 24.0 Regards cube. Releases cube; pronates right hand on table top. . . . 25.0 Regards cube held in left hand on table top, then table top. Lifts and lowers right fingers. Lifts right hand to shoulder level twice; lowers hand to table top. Bangs right-hand-cube against table top. 32.75 Regards cube. 34.25 Examiner presents second cube in standard median position. Regards cube dropped from left hand (e). Slides right hand medially; simultaneously lifts fistful left hand. 36.0 Regards second cube. Slides right hand

forward, brushing second cube beyond reach. Makes numerous approaches with alternate hands. 47.25 Examiner places second cube in near median position. 47.75 Regards table top, second cube, then first cube. Places right hand between the two cubes (f); pronates hand, pushing second cube to the right. Lifts left hand to shoulder level; replaces hand on table top. 52.0 Regards second cube. Slides right hand laterally, pushing cube 8 inches to the right; regards cube; places right ring and little fingers on cube; everts hand. Regards table top. Lifts left hand to shoulder level. Bangs table top with alternate hands. . . . 58.0 Examiner presents third cube in standard median position. Regards left-hand-cube. Holds cube in either hand. Lifts left-hand-cube. Regards right-hand-cube. 59.5 Releases left-hand-cube and holds hand lifted. Lifts both hands to shoulder level; right hand holding cube (g). Regards third cube. Extends right arm laterally, left arm forward. Lowers left hand to table edge, right-hand-cube to table top; lifts right-hand-cube; bangs on table top. 65.0 Regards table top. 66.0 Regards first cube then table top. Adducts and lifts right-hand-cube; lowers right hand to table top. 68.0 Examiner places third cube in near median position. Regards third cube (h). Places right-hand-cube between third cube and pushes both toward table edge. Withdraws right-hand-cube and releases it. Slides right-hand-cube forward, contacting third cube with finger tips. (74.25 sec.)

BEHAVIOR SITUATION CONSECUTIVE CUBES

66.0 seconds
8 phases

Normative Series
Age: 16 weeks
Child: G47



a 2.0 seconds



b 3.25



c 10.75



d 14.0



e 28.5



f 36.5



g 50.75



h 53.75

¶ Regards incoming cube, head tilted to the left, trunk leaning to the left, hands resting on table edge. Examiner presents cube in standard median position. Lifts and abducts right hand; lowers hand to table edge; pronates hand on table top and regards cube (a). Lifts and semi-supinates right hand (b); lowers to table top. 4.75 Regards right hand; turns head and regards surroundings at right. Fingers table top with right hand. 8.0 Turns head forward and regards cube. 10.5 Examiner places cube in near median position. Continues to regard cube. Semi-supinates right hand and holds it unsteadily above table top (c). Fingers table top with left hand. Turns head to the right and regards right hand (d). Lowers right hand and fingers table top. 18.75 Regards table top at left. Slides left hand laterally. Regards cube. Slides both hands medially. 20.5 Regards surroundings at right. . . Examiner presents second cube in standard median position. Regards incoming cube. Approaches cube with right fingers extended; lowers semi-supinated hand. Regards right hand (e). Pronates right hand. 33.75 Lifts and ab-

ducts right hand slightly; pronates hand. 35.75 Examiner places second cube in near median position. Immediately regards cube (f); 36.75 shifts regard to right hand, then to cube. Semi-supinates right hand and slides it medially on table top. 38.75 Regards right hand. . . 47.25 Examiner presents third cube in standard median position. Regards Examiner's hand. Holds cube passively in either hand. Slides cube in left hand along table edge. Abducts and lifts right hand to shoulder level, releasing cube at table edge (g). Extends left fingers; closes fingers on cube. 51.25 Regards third cube. Slides left-hand-cube medially and pushes it off table top; simultaneously approaches and regards right-hand-cube (h). Extends left hand laterally and lowers below table top. 55.75 Lifts left hand to table edge. Pushes right-hand-cube to platform. Regards right-hand. 58.25 Examiner places third cube in near median position. Regards cube immediately. 61.75 Shifts regard to pronated hand, to cube, then to right hand. Lifts and lowers left fingers twice. (66.0 sec.)

BEHAVIOR SITUATION CONSECUTIVE CUBES

43.0 seconds
8 phases

Normative Series
Age: 12 weeks
Child: G47



a 2.25 seconds



b 11.5



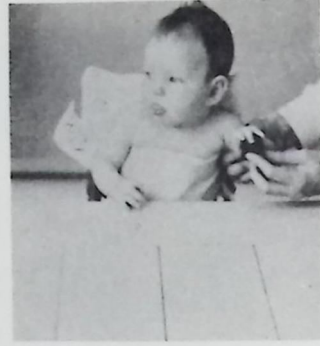
c 20.5



d 23.0



e 24.25



f 34.75



g 38.5



h 39.0

¶ Regards table top, head drooping forward, trunk slumped to the left, hands resting on table top. Examiner presents cube in standard median position. Lifts head slightly and regards cube (a). 2.75 Regards table top. Lifts right hand and replaces on table top; slides hand slightly to the left. 4.25 Regards cube. Again lifts right hand and pronates it on table top; loops hand to left. 7.25 Regards table top. Slides right hand slightly to the right; lifts and lowers extended fingers. 9.25 Turns head and regards right hand; head droops forward; shifts regard to table top. 11.25 Examiner places cube in near median position. Regards cube (b). 12.25 Regards table top. Slides left hand laterally. Lifts right hand slightly and lowers; lifts hand to crown level and lowers on finger tips. 16.0 Lifts fist left hand slightly; lowers to table edge. Lifts and holds right hand momentarily, then drops to table top. Erects head slightly and tilts

it to the right. Regards right hand (c). Lifts and abducts right hand; lowers to table edge. Regards cube (d). Lifts right hand to upper chest level (e). Regards table top. Slowly lowers right fingers to table top; pronates hand. Head droops forward. . . 28.0 (Examiner presses cube into infant's left hand.) Lifts head slightly and regards surroundings at right. Lifts right hand and moves it medially. 30.75 Slides left hand off cube. Jerks right hand upward and returns it to table top. Opens left hand; closes hand on cube (f). Continues to stare at surroundings at right. Lifts and lowers right hand. 37.75 Turns head forward and regards table top. Opens left hand (g); closes fingers on cube (h). Regards surroundings at right. Opens left hand and drops cube to table top; flexes fingers and pushes cube to platform; extends both arms laterally. (43.0 sec.)

Seconds



A 9.25

Rattle is presented in midplane over chest. Infant approaches and grasps rattle by handle with right hand; alternately shakes rattle slightly and holds bowl against left hand; repeats twice. 9.25 Lies supine, head in midposition, pelvis deviated to the right; right arm semi-extended vertically and somewhat medially over chest, hand holding handle of rattle; left arm flexed, forearm lifted vertically and somewhat medially over chest, hand open; legs flexed in wide outward rotation and abduction, feet on platform. Regards rattle. 10.25 Brings open left hand flat against bowl of rattle. 10.5 Semi-extends right arm medially over abdomen. 12.25 Semi-extends right arm vertically and somewhat medially over chest.



B 13.25

Grasps handle of rattle with left hand, holding rattle over chest with both hands. 15.75 Opens right hand, releasing rattle from left hand; flexes right arm, directing forearm vertically and somewhat medially over chest. 17.25 Extends left arm vertically in shoulder zone, hand holding rattle. Regards surroundings. 17.5 Extends left arm forward. 17.75 Extends left arm vertically in shoulder zone; directs right forearm vertically in lateral chest zone, closing hand; turns head half left. 18.0 Extends left arm forward. 18.25 Extends left arm vertically in shoulder zone.



C

18.5 Extends left arm forward; 18.75 headward; 19.0 forward; 19.25 headward; 19.5 forward; 19.75 semi-extends arm vertically and somewhat medially over chest. 20.0 Semi-extends right arm vertically and somewhat medially over chest, touching bowl of rattle with open hand; semi-extends left arm medially over abdomen. 20.25 Turns head to midposition; regards rattle; semi-extends left arm vertically and somewhat medially over chest, carrying bowl of rattle beyond right hand. 22.0 Grasps handle of rattle with right hand.



D

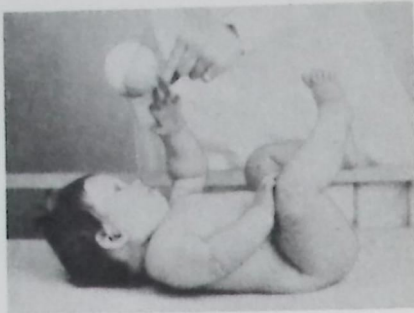
22.5 Opens left hand, releasing rattle from left hand. (23.0 sec.)

RATTLE

23.0 seconds

4 phases

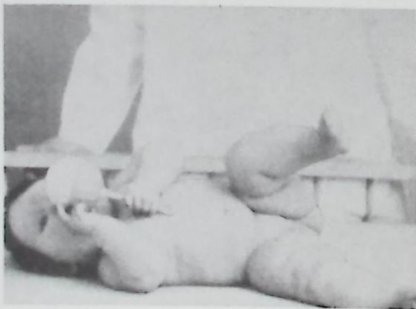
Seconds



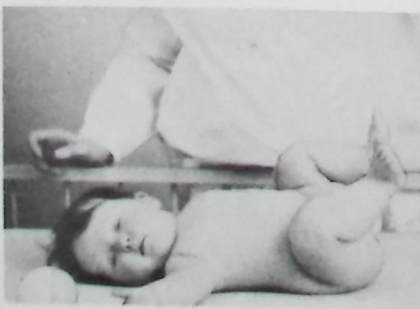
- A 0.25 ¶ Rattle is presented in midplane over chest. 0.25 Infant lies supine, head in midposition, trunk straight; right arm semi-extended forward, open hand on right knee; left arm extended vertically and medially in shoulder zone toward rattle, hand open; right leg obtusely flexed and outwardly rotated, foot lifted 6 inches; left leg acutely flexed and outwardly rotated, foot lifted 5 inches. Regards rattle. 1.0 Flexes left arm, directing forearm medially over chest; flexes right leg acutely in outward rotation, foot 3 inches above platform.



- B 3.0 Grasps rattle with left hand. 6.75 Turns head half right. ... 10.75 Turns head fully right and rolls trunk half right; flexes right arm, lifting forearm vertically and somewhat medially over chest, placing open hand on bowl of rattle; flexes right leg in outward rotation, foot 3 inches above platform; extends left leg forward, foot 3 inches above platform at right. 11.25 Semi-extends right leg on platform. 12.25 Flexes left leg in outward rotation and swings it toward left, lifting foot 5 inches above platform. 14.25 Brings right hand holding bowl of rattle to mouth, and lowers left hand holding handle to chest, arms flexed; extends left leg forward, foot 3 inches above platform at right. 16.0 Extends right leg on platform.



- C 16.5 Flexes left leg in outward rotation and swings it toward left, lifting foot 5 inches above platform. 17.5 Extends left leg forward, foot 3 inches above platform at right. 18.25 Lifts both forearms vertically in medial chest zone, rattle held with both hands over chest. 20.0 Extends left leg on right leg.

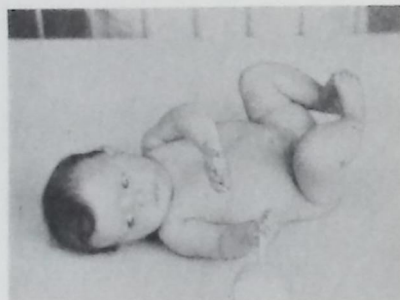


- D . . 21.5 (Rattle is placed within reach on platform in right shoulder zone.) 21.5 Lies supine, head turned fully right, trunk straight; extends right arm laterally on platform, open hand touching rattle; left arm not visible; flexes both legs acutely in outward rotation, feet 5 inches above platform. Regards rattle. 22.5 Extends right arm headward on platform, pursuing handle of rattle. (23.0 sec.)

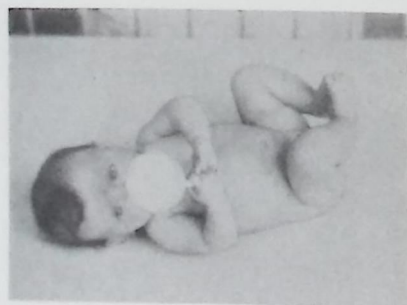
Seconds



E 14.75 Turns head half right, turning shoulders toward right, pelvis deviated toward left.



F 15.25 Semi-extends left arm medially across chest toward rattle in right hand. 16.25 Flexes right arm, lifting forearm vertically in lateral chest zone. 16.75 Hands engage over right chest.



G 17.75 Flexes arms, directing forearms medially over chest and lifting rattle to mouth. Regards surroundings. 19.0 Holds rattle over chest; turns head to midposition. 19.5 Straightens shoulders, pelvis deviated to left. Regards rattle.



H 20.0 Separates hands, lifting right forearm vertically in lateral chest zone; opens right hand, dropping rattle between knees; semi-extends left arm medially over abdomen, hand on left knee. Regards Examiner. 20.5 Turns head half left, straightening pelvis. (21.0 sec.)

Seconds



E . . 9.75 Flexes arms, directing forearms medially over chest, right hand open, left hand closed; flexes right leg in outward rotation, right foot on platform; flexes left leg acutely in outward rotation, lifting foot 2 inches. 10.0 Flexes right leg acutely in outward rotation, lifting foot 1 inch. 10.25 Hands contact over chest; closes right hand.



F 10.75 Brings hands to mouth; lifts feet 3 inches above platform, legs acutely flexed in outward rotation. 11.75 Rolls pelvis to the left. 12.25 Opens left hand. 12.75 Lowers right foot to a position 1 inch above platform, leg acutely flexed.



G . . 13.0 (Infant has pivoted 45 degrees clockwise. Rattle is inserted in left hand.) Head is turned fully left, trunk straight; right arm flexed, open hand on chest; left arm flexed, forearm lifted vertically in lateral shoulder zone, rattle in open hand; legs flexed in outward rotation, right foot on platform, left foot lifted 1 inch. Regards rattle in hand. 13.25 Lowers left foot to platform. 14.75 Closes left hand; 15.5 opens hand; 15.75 closes hand; 16.0 opens hand; rests right foot on left ankle. 16.5 (Rattle falls from hand, handle touching hand.) 16.75 Closes left hand; 17.0 opens hand; 18.25 closes hand.



H 18.75 Opens left hand. (Rattle falls to platform at left.) Regards left hand; lifts right foot 2 inches, leg flexed in outward rotation. (19.75 sec.)

BEHAVIOR SITUATION

RATTLE

19.75 seconds

8 phases

Normative Series

Age: 16 weeks

Child: G44

Seconds

A 0.25 ¶ Rattle is presented in midplane over chest. 0.25 Infant lies supine, head turned half left; right arm flexed, open hand on chest; left arm semi-extended and lifted slightly in lateral shoulder zone, hand open; legs extended and slightly abducted on platform; trunk straight. Regards Examiner. 1.0 Lifts right forearm vertically in lateral shoulder zone, arm flexed. 1.5 Regards rattle.



B 2.5 Turns head to midposition; flexes left leg in outward rotation on platform. 2.75 Semi-extends both arms footward; extends left leg on platform. 3.0 Directs right arm headward, left arm laterally in shoulder zone; arches back slightly, rolling pelvis to left. 3.25 Lifts right arm vertically in lateral shoulder zone; straightens trunk. 3.5 Flexes legs acutely in inward rotation, lifting feet 2 inches. 3.75 Directs right arm headward, left arm footward. 4.0 Flexes arms, lifting forearms vertically in lateral shoulder zone; semi-extends right leg, lowering foot to platform. 4.75 Semi-extends right arm headward, left arm laterally in shoulder zone. 5.0 Flexes right leg in outward rotation and semi-extends left leg, feet on platform.



C 5.25 Directs right arm footward, left arm headward; semi-extends right leg and flexes left leg in outward rotation, feet on platform. 5.5 Directs right arm headward, left arm footward; extends right leg on platform; lifts right foot 2 inches; leg flexed in outward rotation. 6.0 Directs arms laterally in shoulder zone; semi-extends left leg, lowering foot to platform. 6.25 Directs right arm headward, left arm footward; flexes right leg acutely in outward rotation, foot on platform. 6.5 Directs left arm headward. 6.75 Semi-extends right leg on platform; flexes left leg in outward rotation, lifting foot 1 inch.



D 7.25 Directs left arm footward; semi-extends left leg on platform. 7.5 Directs right arm footward, left arm headward. 8.0 Directs right arm headward, left arm footward; flexes left leg in outward rotation, lifting foot 1 inch. 8.5 Directs right arm footward; flexes left arm, lifting forearm vertically in lateral shoulder zone. 8.75 Directs right arm headward. 9.25 Directs right arm laterally in shoulder zone; semi-extends left leg on platform.



RATTLE

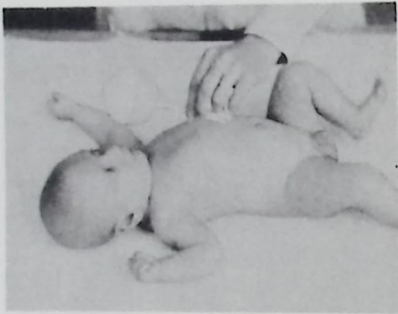
13.75 seconds

4 phases

Seconds



- A 1.75 ¶ Rattle is presented in midplane over chest. Infant regards surroundings. 1.75 Lies supine; head turned half right; arms flexed on platform beside head, hands closed; right leg semi-extended on platform; left leg flexed in outward rotation, foot lifted 2 inches; trunk straight. (Legs are outwardly rotated, unless otherwise stated.) Regards rattle. (Legs are surrounded. Flexes right leg on platform. (Rattle is shaken.) 2.25 Regards surroundings. Lifts right forearm vertically in lateral chest zone, arm flexed; semi-extends left arm vertically in lateral shoulder zone; lowers flexed left leg to platform form. Regards rattle. (Rattle is quiet.) Turns head to midposition; regards Examiner; semi-extends legs, lifting left foot 3 inches.



- B 4.5 Flexes right arm on platform beside head; semi-extends left arm laterally and headward on platform; flexes left leg, foot lifted 1 inch above platform. 6.75 Lifts semi-extended left arm slightly in lateral shoulder zone; semi-extends and adducts legs on platform. ... 7.25 Lies supine, head turned fully right; right arm extended laterally on platform, hand closed; left arm flexed on platform, closed hand at occiput; legs semi-extended on platform; pelvis deviated to the right. Regards surroundings. (Rattle is touched to left hand.)



- C 8.0 Semi-extends left arm headward and laterally, opening hand; flexes and rolls right leg inward, foot on platform. 8.5 (Rattle is placed in left hand.) Flexes left arm on platform beside head, hand closing on handle of rattle; flexes and rolls left leg inward, foot on platform; straightens trunk. 9.5 Rolls flexed legs outward, feet on platform.



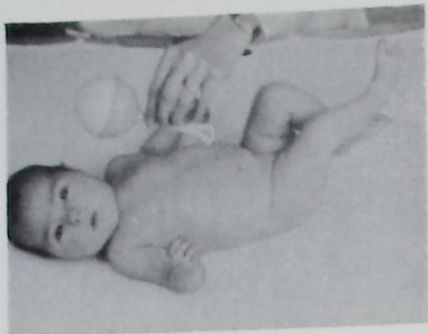
- D 9.75 Turns head half right; flexes left arm, bringing hand to shoulder. 11.0 Turns head fully right; rolls flexed left leg inward, foot on platform. 11.75 Turns head half right. 12.5 Rolls flexed right leg inward, foot on platform. 13.25 Turns head fully right. (13.75 sec.)

RATTLE

13.75 seconds

4 phases

Seconds



A 0.75

¶ Rattle is presented in midplane over chest. 0.75 Infant lies supine, head turned fully right; right arm semi-extended in lateral chest zone, forearm slightly lifted; left arm flexed, forearm lifted vertically in lateral chest zone; hands closed; right leg semi-extended without rotation, foot lifted 3 inches; left leg acutely flexed in outward rotation, foot lifted 2 inches; pelvis deviated to the left. Regards surroundings. (Legs are in outward rotation when flexed, and are without rotation when extended, unless otherwise stated.) ... 1.25 (Rattle is held in line of vision.) Flexes right arm, lifting forearm vertically in lateral shoulder zone; lowers feet to platform, right leg semi-extended, left leg flexed. Regards rattle. 2.0 Opens right hand.



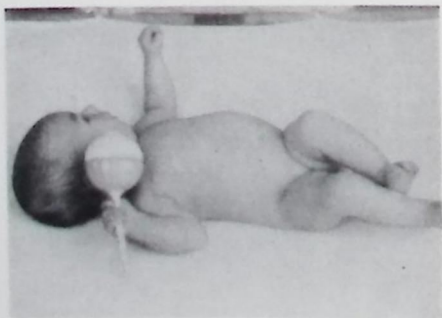
B 2.25

(Rattle is touched to right hand.) 4.25 Semi-extends left arm headward, opening hand. Regards surroundings. 5.0 (Rattle is placed in right hand.) Closes right hand on handle of rattle. Lifts semi-extended left arm vertically in lateral shoulder zone. Lifts right foot 2 inches, leg semi-extended. 5.5 Turns head almost to midposition; closes left hand.



C

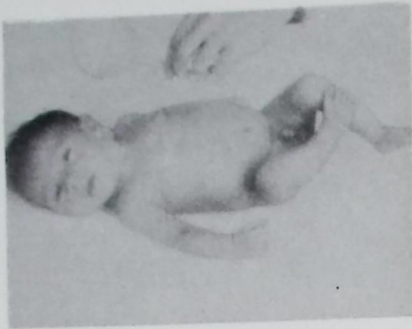
6.0 Flexes both arms, lowering forearms to platform beside head; lifts semi-extended right leg 3 inches above platform; flexes left leg acutely, lifting foot 2 inches. 6.75 Turns head half right; opens left hand. 7.75 Turns head to midposition; semi-extends left arm vertically in lateral shoulder zone; flexes right leg acutely, foot 3 inches above platform. 8.5 Semi-extends both legs, right foot 3 inches above platform, left foot 1 inch above platform. 8.75 Turns head half right; flexes left arm, lifting forearm vertically in lateral shoulder zone, hand closed. 9.25 Swings pelvis to the right. Regards Examiner. 9.5 Flexes left leg in inward rotation, foot 1 inch above platform. 9.75 Flexes right arm, bringing hand to shoulder; lowers semi-extended right leg to a position 1 inch above platform.



D

10.25 Semi-extends left arm, lifting forearm slightly in lateral shoulder zone; semi-extends left leg, resting foot on right lower leg. 10.75 Lowers right foot to platform, leg semi-extended. 12.0 Semi-extends right arm in lateral chest zone, forearm slightly lifted; opens left hand. 12.75 Lowers left foot to platform, leg semi-extended. 13.5 Flexes right arm, bringing hand to shoulder; closes left hand; flexes right leg in inward rotation, lifting foot 1 inch. (13.75 sec.)

Seconds



A 1.25

Rattle is presented in midplane over chest. 1.25 Infant lies supine, head turned fully right; arms extended on platform at sides of trunk, right arm slightly abducted, hands closed; legs flexed in outward rotation, right foot lifted 2 inches; left leg lifted 1 inch. (Legs are outwardly rotated unless otherwise stated.) Regards surroundings. 1.75 (Rattle is shaken.) Flexes left leg in inward rotation, lifting foot 2 inches above platform, left leg crossed under right. 2.25 Semi-extends right leg, foot lifted 2 inches above platform. 3.0 Flexes right leg, resting foot on left ankle. 3.75 (Rattle is quiet.) 4.75 Lowers left foot to platform, leg flexed in inward rotation. 6.25 Extends right arm laterally on platform; rolls flexed left leg outward.



B 6.75

(Rattle is moved to line of vision.) Regards rattle. Rolls pelvis to right. 7.5 Regards surroundings. 8.0 Straightens trunk. 9.5 (Rattle is touched to right hand.) 12.25 Abducts left arm slightly on platform. 13.5 Extends left arm vertically in lateral head zone. 14.5 Flexes left arm, lifting forearm vertically in lateral shoulder zone. 15.0 Extends left arm laterally on platform. 16.75 Rolls flexed right leg inward; swings pelvis to left.



C 18.5

Flexes right arm, bringing hand to shoulder. 19.25 Extends left arm on platform at side of trunk. 20.0 Extends head, turned fully right. ... 20.5 (Examiner has inserted rattle into right hand.) Lies supine, head turned fully right; right arm extended and slightly lifted at side of trunk, hand holding rattle; left arm extended on abdomen, hand closed; right leg flexed, foot on platform; left leg flexed in inward rotation, foot lifted 1 inch; pelvis deviated to left and rolled to right. 21.25 Lowers left foot to platform, rolling flexed leg outward. 21.75 Rolls flexed right leg inward, rolling pelvis to midposition, deviation to left remaining.



D 22.25

Extends right arm on platform at side of trunk, hand holding rattle. 24.0 Flexes right leg acutely in inward rotation, lifting foot 2 inches. 25.5 Extends left arm on platform at side of trunk; extends left leg, lifting foot 1 inch. 25.75 Swings pelvis farther to left. (26.0 sec.)

BEHAVIOR SITUATION

RATTLE

15.0 seconds

8 phases

Normative Series

Age: 4 weeks

Child: G59

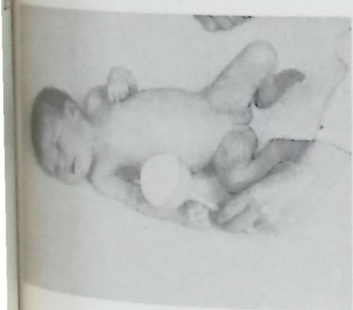
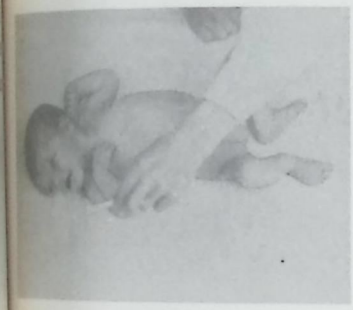
Seconds

A 0.25 ¶ Rattle is presented in midplane over chest; rattle shaken.
 0.25 Infant lies supine in tonic-neck-reflex attitude; head turned fully right; right arm extended on platform at side of trunk, hand closed; left arm flexed, fist at occiput; legs acutely flexed in outward rotation, right foot on platform, left foot lifted 2 inches; pelvis deviated to the right. (Legs are in outward rotation unless otherwise stated.) Regards surroundings. 1.25 Lowers left foot to platform; straightens trunk. 1.5 (Rattle is moved to right.) 2.25 (Rattle is held in line of vision.)

B 3.25 Flexes right arm, bringing open hand under chin; rolls pelvis to left. 3.75 Rolls flexed right leg inward. 4.25 Semi-extends right leg, lifting foot 3 inches. 5.25 Extends right arm on platform at side of trunk, closing hand; moves left hand to shoulder, arm flexed; flexes right leg acutely, lowering foot to a position 1 inch above platform; semi-extends left leg on platform; swings pelvis to right. 5.75 Lowers right foot to platform; flexes left leg acutely, lifting foot 3 inches; swings pelvis to left. 6.75 Extends right arm on abdomen; moves left hand to chest, arm flexed; lowers left foot to platform. 7.0 (Rattle is moved toward right hand.) 8.0 Extends right arm on platform at side of trunk.

C 9.0 (Handle of rattle is touched to closed right hand.) Abducts right arm slightly on platform.

D 10.25 Flexes right arm, lifting forearm slightly in lateral shoulder zone and extends left arm vertically in lateral shoulder zone; opens both hands; extends right leg, lifting foot 1 inch; rolls flexed left leg inward; rolls pelvis to the right while deviated to the left. 10.75 Moves flexed right arm, bringing hand to chest; semi-extends left arm medially on abdomen.



BEHAVIOR SITUATION
DANGLING RING

29.25 seconds

8 phases

Normative
Age: 28 wks
Child: G-57

Seconds

E 15.0 Brings ring to mouth; regards surroundings.



F 17.75 Extends right arm vertically and medially over chest, holding ring over chest and face; turns head half left; regards Examiner. 19.5 Opens left hand. 19.5 Closes left hand. 20.0 Turns head to midposition; regards ring. 21.0 Opens left hand.



G 21.5 Semi-extends right arm in medial chest zone, bringing ring to mouth; closes left hand. 22.0 Regards surroundings. 22.0 Lies supine, head in midposition, trunk straight; arms flexed. 22.0 Arms lifted vertically in medial chest zone, right hand holding string, left hand holding ring; legs acutely flexed in outward position, feet in contact 4 inches above platform; regards ring. 22.0 Moves right forearm somewhat laterally.



H 28.0 Regards string. 29.0 Regards ring. (29.25 sec.)

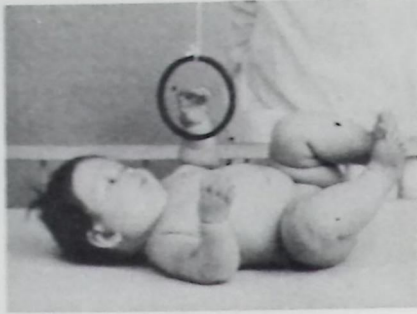


BEHAVIOR SITUATION
DANGLING RING

9.75 seconds
4 phases

Normative Scores
Age: 24 weeks
Child: G31

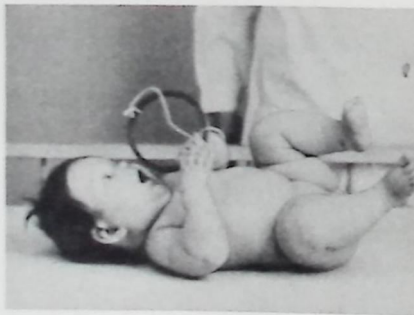
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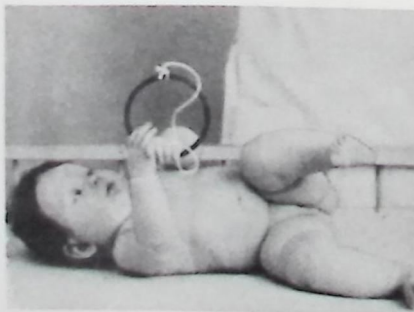
A 0.25 Dangling ring is presented in midplane over chest. 0.25 Infant lies supine, head and trunk turned slightly to right; arms flexed, right forearm lifted vertically in lateral chest zone, left forearm lifted vertically and somewhat medially in chest zone, both hands open; legs acutely flexed in outward rotation, feet in contact 3 inches above platform. Regards ring. 1.5 Rolls pelvis farther to right, lowering right leg to platform in flexion and outward rotation. 2.0 Directs left forearm medially, hand poised near ring.



B 3.25 Grasps ring with left hand and holds it lifted over chest. 4.0 Closes right hand. 4.25 Lifts left foot 5 inches above platform, leg acutely flexed and outwardly rotated; rolls pelvis part way to midposition. 5.5 Directs right forearm medially over chest, hand approaching ring; flexes right leg acutely in outward rotation, lifting foot 3 inches.



C 5.75 Rotates left forearm, bringing ring nearer to mouth; opens mouth. 6.75 Semi-extends left arm, lifting it vertically in lateral shoulder zone. 7.0 Pronates left forearm, holding ring over chest; closes mouth.



D 7.25 Flexes left forearm, lifting forearm vertically in medial chest zone, approaching ring; rolls pelvis fully right, lowering right leg to platform in flexion and outward rotation, and lowering left foot to a position 3 inches above platform, leg acutely flexed and outwardly rotated. 8.0 Extends right leg on platform; semi-extends left leg, lifting foot 5 inches above platform. 8.5 Semi-extends lifted right arm in medial abdominal zone. 9.0 Turns head and trunk to midposition; semi-extends right leg in outward rotation on platform and lowers left foot to a position 3 inches above platform, leg acutely flexed and outwardly rotated. 9.5 Semi-extends right arm medially over chest. (9.75 sec.)

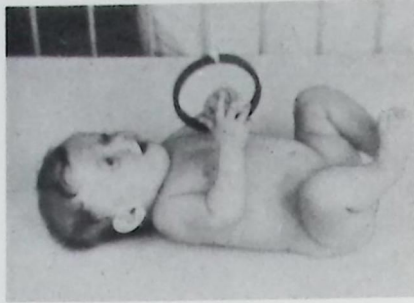
BEHAVIOR SITUATION
DANGLING RING

20.0 seconds

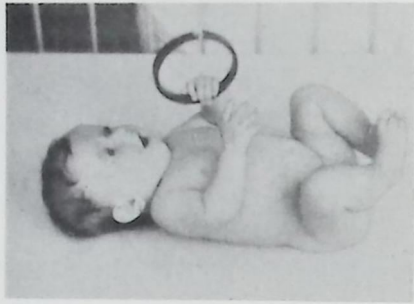
8 phases

Normative
Age: 20 we
Child: G-3

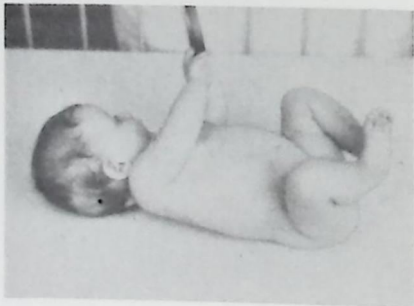
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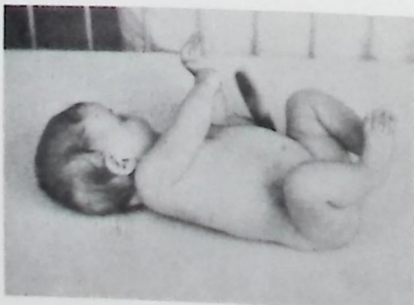
E 11.25 Flexes arms vertically in medial chest zone, open hands point near ring; trunk straight.



F 11.75 Grasps ring with left hand. 13.25 Open right hand touches ring. 13.75 Regards Examiner. 13.75 Semi-extends right arm vertically and somewhat medially in chest zone; extends lifted left arm in lateral abdominal zone. 14.25 Extends left arm vertically in lateral shoulder zone; turns head left; regards ring in hand. 14.75 Flexes left arm, lifting forearm vertically and somewhat medially in chest zone. 15.0 Regards surrounding. 15.25 Semi-extends left arm medially and footward, bringing ring to knee. 16.5 Flexes left arm, lifting forearm vertically in lateral shoulder zone. 16.75 Turns head fully left and shoulders slightly to left; regards ring in hand.



G 17.25 Semi-extends right arm medially across chest, closing hand. 18.0 Turns head half left; opens right hand. 18.25 Open right hand touches ring. 19.0 Closes right hand.



H 19.5 Opens hands, dropping ring to platform at left; regards surroundings. (20.0 sec.)

BEHAVIOR SITUATION
DANGLING RING

16.0 seconds
4 phases

Seconds



A 0.25 ¶ Dangling ring is presented in midplane over chest. 0.25 Infant lies supine; head is in midposition; arms symmetrically flexed, closed hands on platform beside head; right leg flexed in outward rotation on platform; left leg outwardly rotated, lower leg not visible; trunk straight. Regards ring. 1.25 Semi-extends right arm vertically and somewhat medially in chest zone.



B 2.5 Semi-extends left arm vertically and somewhat medially in chest zone; lifts both legs slightly in outward rotation. 3.25 Flexes right arm, lowering hand to chest; lowers legs, rolling left leg inward; rolls trunk very slightly toward right. 4.25 Flexes left arm, lowering hand to chest.



C 4.5 Hands contact on chest. (Ring is lowered to hands.) 5.5 Straightens trunk. 7.0 Extends right leg on platform. 11.0 Head is in midposition; right arm flexed, forearm lifted vertically in medial chest zone, hand open; left arm flexed, closed hand on chest; right leg extended and abducted, left leg flexed in inward rotation, feet on platform; pelvis rolls slightly to right. (Examiner touches ring to right hand.) Regards examiner's hand. 13.5 Turns head half right; regards surroundings; grasps ring interdigitally with right hand; rolls left leg outward, straightens trunk. 13.75 Lifts flexed left arm in medial chest zone. 14.0 Turns head fully right. 14.75 Turns head half right; extends right arm laterally, 1 inch above platform; flexes left arm on platform beside head.



D 15.5 Regards ring in hand; rolls flexed left leg inward, rolling pelvis slightly to the right. (16.0 sec.)

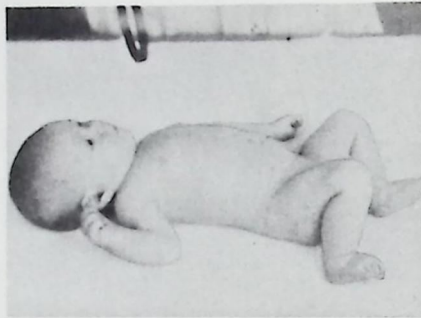
BEHAVIOR SITUATION
DANGLING RING

19.5 seconds
4 phases

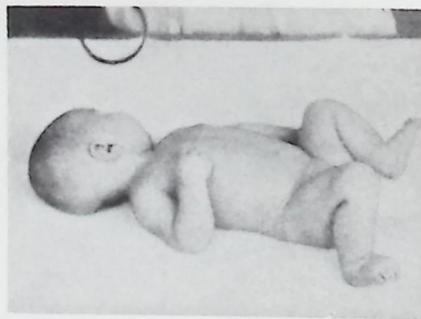
Seconds



- A 0.25 § Dangling ring is presented in midplane over abdomen.
0.25 Infant lies supine, head turned half left; right arm flexed, hand on chest; left arm extended on platform at side of trunk; hands closed; right leg acutely flexed in outward rotation, foot abducted on platform; left leg acutely flexed in outward rotation, foot lifted 2 inches; pelvis deviated to the right. Regards Examiner. 1.25 Lifts right forearm vertically in lateral chest zone, arm flexed. 1.5 (Ring is over chest.) 2.0 Rolls flexed right leg inward, foot abducted on platform. 2.5 Lowers left foot to platform, leg acutely flexed in outward rotation. 3.25 Regards ring. 5.25 Brings right hand to shoulder, arm flexed.



- B 7.0 Turns head to midposition. 8.5 Turns head half left. 9.5 (Ring is moved toward left.) 10.0 Regards Examiner's hand, pursuing it visually. 11.25 Lifts right forearm vertically in lateral chest zone, arm flexed. 12.5 Rolls acutely flexed left leg inward, foot on platform. 13.0 Turns head fully left.



- C 13.25 Regards ring at left. Brings right hand to chest, arm flexed, lifts left leg 2 inches in acute flexion and outward rotation. 14.0 (Ring is moved medially.) Pursues ring visually. 15.0 Lowers left foot to platform, leg acutely flexed in outward rotation. 16.0 Turns head half left. 16.75 Turns head to midposition. 17.0 (Ring is moved toward right.) Pursues ring visually, turning head half right; semi-extends arms laterally on platform, opening right hand; rolls acutely flexed right leg outward, foot on platform.



- D 17.75 (Ring is at right.) Turns head fully right, pursuing ring visually; straightens pelvis. 18.5 Closes right hand; rolls acutely flexed right leg inward, foot on platform. (19.5 sec.)

BEHAVIOR SITUATION
DANGLING RING

21.0 seconds

4 phases

Seconds



A 3.75 ¶ Dangling ring is presented in midplane over chest. Regards Examiner. 3.75 Infant lies supine, head turned right; right arm extended laterally on platform; left arm flexed, forearm lifted vertically in lateral chest zone, hands closed; right leg semi-extended, left leg flexed in outward rotation, feet lifted 1 inch; pelvis deviated to the right. Regards surroundings. 4.25 Straightens pelvis. 4.75 Semi-extends right leg 2 inches above platform; flexes left leg acutely in outward rotation 1 inch above platform. 5.25 Lowers left foot to platform, leg flexed in inward rotation. 5.75 Semi-extends right leg 3 inches above platform; lifts left leg 1 inch in flexion and outward rotation; swings pelvis to the left. 6.25 Flexes right leg in inward rotation 3 inches above platform; flexes left leg acutely in outward rotation, lifting foot 2 inches above platform.



B 7.0 Turns head half right; regards ring. 9.0 Lowers right foot to platform, leg flexed in outward rotation. 9.5 Lowers left foot to platform, leg flexed in outward rotation. 11.0 (Ring is moved toward right.) 11.25 Regards Examiner's hand holding string. Extends left arm on platform at side of trunk. 11.5 Flexes right leg acutely in outward rotation, lifting foot 2 inches. 12.5 Regards ring, pursuing it visually.



C 13.0 Turns head to the right; semi-extends right leg 3 inches above platform. 13.75 Semi-extends left arm headward, arm lifted in lateral head zone; flexes right leg acutely in outward rotation 2 inches above platform. 14.5 (Ring is moved medially.) Pursues ring visually. Flexes left arm, forearm lifted vertically in lateral shoulder zone, hand open. 16.25 Turns head half right. 17.25 Semi-extends right leg 3 inches above platform; flexes left leg acutely in outward rotation on platform. 17.5 (Ring is moved toward left.) Pursues ring visually. Flexes right arm, lifting forearm vertically in lateral chest zone. Closes left hand. 18.5 Semi-extends right leg on platform; straightens pelvis. 18.75 Turns head to midposition; extends right arm on platform at side of trunk; brings left hand to shoulder; arm flexed; swings pelvis to the right.



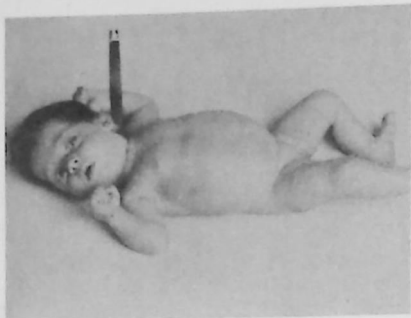
D 19.5 Turns head half left, regarding ring in half left position; flexes left arm, bringing hand to chest; flexes right leg acutely in outward rotation, lifting foot 3 inches above platform; flexes left leg in inward rotation, lifting foot 1 inch; rolls pelvis toward right. 19.75 Semi-extends left arm, shifting hand to shoulder. Straightens pelvis. 20.25 Regards Examiner; flexes left arm, lifting forearm vertically in lateral chest zone; flexes left leg acutely in outward rotation, lifting foot 2 inches above platform. (21.0 seconds)

BEHAVIOR SITUATION
DANGLING RING

12.75 seconds

4 phases

Seconds



A 2.5 ¶ Dangling ring is presented in midplane over head. 2.5 Infant lies supine, head slightly extended and turned fully right; arms flexed on platform, right hand closed at shoulder, left hand open beside head; right leg extended and adducted, lifted 1 inch above platform; right leg shows outward rotation, foot on platform; trunk straight. Regards surroundings. 3.25 Semi-extends right leg in adduction, lifting leg 3 inches above platform; swings pelvis to the left. 4.0 Turns extended head half right; moves right arm medially, bringing fist under chin; moves left hand toward occiput. 4.25 Turns extended head fully right. 5.5 (Ring is moved toward right.) 6.0 Extends right leg in slight abduction, foot 1 inch above platform; semi-extends left leg on platform; straightens trunk. 6.5 Closes left hand.



B 6.75 (Ring is at right.) Head is turned fully right; arms flexed, right hand fist on upper chest, left hand fist at occiput; legs flexed, feet on platform, right leg rolled inward, left leg rolled outward; trunk straight. Regards ring. 8.0 Lifts right leg 3 inches in flexion and inward rotation. 8.25 Moves right hand to lower chest. 8.5 (Ring is moved toward midline.) Pursues ring visually. 10.0 Turns head just perceptibly, following ring; lifts right forearm vertically in lateral chest zone.



C 11.25 Turns head to three-quarters right position, following ring within 15 degrees of midposition; flexes right leg acutely in inward rotation, foot 3 inches above platform. 11.75 (Ring is at midline.) Regards surroundings.



D 12.5 Turns head fully right; semi-extends right arm, forearm lifted in lateral chest zone (approximately tonic-neck-reflex attitude); lowers right foot to a position 1 inch above platform, leg acutely flexed; flexes left leg acutely, foot on platform; both legs inwardly rotated. (12.75 sec.)

BEHAVIOR SITUATION
DANGLING RING

13.0 seconds

4 phases

Seconds



- A 3.0 ¶ Dangling ring is presented in midplane over chest. 3.0 Infant lies supine in tonic-neck-reflex attitude, head turned fully right; right arm extended and abducted at side of trunk, closed hand lifted; right arm extended and lifted in lateral head zone, hand closed; legs acutely flexed in outward rotation, right foot lifted 1 inch, left foot on platform; pelvis rolled slightly to right. 3.75 Kicks right leg; lowers right hand to platform; semi-extends then flexes left arm, bringing open hand to occiput. 5.0 (Ring is moved toward right.) Adducts right arm; semi-extends then flexes left arm, bringing hand to occiput; rolls right leg inward, then outward, lowering foot to platform.



- B 7.75 (Ring is at right.) Regards ring. 8.5 Lifts left forearm vertically in lateral head zone, arm flexed. 8.75 (Ring is moved toward midplane.) 9.25 Pursues ring visually. 9.5 Brings left hand to occiput, arm flexed and lifted.



- C 10.0 Turns head to three-quarters right position, following ring now in half right position. 10.75 Regards surroundings. 11.75 (Ring in midposition over head.) Lowers flexed left arm, bringing closed hand to shoulder.



- D 12.75 Abducts extended right arm slightly at side of trunk, lifting hand from platform. (13.0 sec.)

Seconds



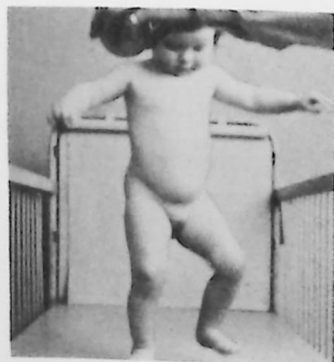
E . . 4.0 Stands facing lure at foot of crib, face to camera. Head is tilted slightly forward in midposition, trunk erect; right arm adducted and semi-extended forward and downward, hand closed; left arm flexed, upper arm adducted, forearm directed forward and laterally at lower chest level, hand open; left leg extended and slightly abducted, foot on platform; weight on left foot; flexes right leg, lifting foot 1 inch and moving it forward laterally. Regards platform.



F 4.25 Abducts right arm slightly, semi-extended forward and downward; closes left hand; extends right leg, lowering foot to platform in advance of left; flexes left leg, lifting foot 1 inch and moving it forward; weight on right foot. 4.5 Extends left leg, lowering foot to platform in advance of right.



G 4.75 Flexes right arm, upper arm slightly abducted, forearm directed forward and downward at lower chest level; opens both hands; flexes right leg, lifting foot 1 inch and moving it forward; weight on left foot. 5.0 Semi-extends left arm forward and laterally at chest level; extends right leg, lowering foot to platform in advance of left; flexes left leg, lifting foot 1 inch and moving it forward; weight on right foot. 5.25 Extends left leg, lowering foot to platform in advance of right. 5.5 Flexes right leg, lifting foot 1 inch and moving it forward; weight on left foot. 5.75 Closes right hand; extends right leg, lowering foot to platform in advance of left.



H 6.0 Extends both arms laterally at shoulder level, hands open; flexes left leg, lifting foot 1 inch and moving it forward; weight on right foot. (Without assistance, infant has walked forward six steps (6.25 sec.)

BEHAVIOR SITUATION
STANDING

6.25 seconds
8 phases

Normative Series

Age: 60 weeks

Child: G44

Seconds



- A 0.5 ¶ Stands facing lure at head of crib, back to camera. Head is erect in midposition, tilted to right; trunk leans to right; right arm semi-extended forward and laterally, hand holding rail at lower chest level; left arm extended laterally and headward, hand open; legs extended, feet on platform, left foot behind right; weight on right hand and left foot. 0.75 Directs extended left arm laterally at shoulder level; flexes right leg, lifting foot 2 inches and moving it to right. 1.0 Extends and abducts right leg, lowering foot to platform; weight on right hand and right foot. 1.5 Straightens head and trunk; semi-extends left arm forward and laterally at shoulder level; flexes left leg, lifting foot 1 inch and moving it forward.



- B 1.75 Semi-extends right arm forward and laterally at shoulder level, releasing rail; extends left leg, lowering foot to platform in advance of right; flexes right leg, lifting foot 1 inch and moving it forward; weight on left foot. 2.0 Extends right leg, lowering foot to platform in advance of left.



- C 2.25 Flexes left leg, lifting foot 1 inch and moving it forward; weight on right foot. 2.5 Semi-extends right arm forward at shoulder level; extends left leg, lowering foot to platform in advance of right; flexes right leg, lifting foot 1 inch and moving it forward; weight on left foot. 2.75 Extends left arm forward at shoulder level; extends right leg, lowering foot to platform in advance of left. 3.0 Grasps rail at head of crib with both hands, arms extended forward at shoulder level; flexes left leg, lifting foot 1 inch and moving it forward; weight on hands and right foot.



- D 3.25 Extends left leg, lowering foot to platform in line with right. 3.5 Lifts right heel. (Without assistance, infant has walked forward five steps.)

Seconds



A 0.5 ¶ Stands facing lure at left-foot corner of crib, supported by left hand. Head is erect in midposition; right arm semi-extended forward at shoulder level toward lure, hand open; left arm flexed and abducted, upper arm directed slightly backward, forearm directed forward at chest level; left leg extended, foot on platform, right leg lifted 2 inches and semi-extended forward in advance of left; trunk erect; weight on left hand and left foot. Regards lure. 0.75 Extends right leg, lowering foot to platform in advance of left; semi-extends left leg, lifting foot 1 inch and moving it forward; weight on left hand and right foot.



B 1.0 Extends left leg, lowering foot to platform in line with right. 1.25 Flexes right leg, lifting foot 1 inch and moving it forward; weight on left hand and left foot; leans slightly backward. 1.5 Extends right leg forward and medially 1 inch above platform, pivoting slightly counter-clockwise on left foot, left leg rotating inwardly; leans slightly forward. 1.75 Lowers right foot to platform in advance of left; weight on left hand and both feet. 2.0 Secures lure with right hand. 3.25 (Infant has walked three steps forward, supported by left hand.)



C . . 3.5 Stands unsupported, facing Examiner at left side of crib; head erect in midposition; right arm semi-extended downward; left arm extended forward and laterally at chest level; legs extended and slightly abducted, feet on platform, right foot slightly everted; trunk erect; weight on both feet. Regards Examiner. 3.75 Pronates right foot on platform. 4.0 Lifts right arm to shoulder level, semi-extending it forward. 4.25 Lifts left arm to shoulder level, extending it forward. 4.5 Flexes left leg, lifting foot 2 inches and moving it forward; weight on right foot.



D 4.75 Extends left leg, lowering foot to platform in advance of right; semi-extends right leg, lifting heel from platform; leans slightly forward; weight on left foot. 5.0 Flexes right leg, lifting foot 2 inches and moving it forward. 5.25 Extends right leg in inward rotation, lowering foot to platform in advance of left; flexes left leg, lifting foot 1 inch and moving it forward; clutches Examiner with both hands, arms semi-extended forward at chest level; weight on hands and right foot. (Without support, infant has walked 2 steps forward to Examiner.) (5.5 sec.)

Seconds



- E . . 5.5 Stands facing head of crib, supported by hands; head erect, turned half left; trunk erect; arms flexed, right arm abducted, left arm adducted, both upper arms directed slightly backward, forearms directed forward at chest level; legs extended and abducted, left foot on platform, right toes on platform behind left foot; weight on hands and left foot. Regards surroundings. 6.0 Flexes right leg, lifting foot 1 inch and moving leg forward. 6.25 Extends right leg in adduction, lowering foot to platform slightly in advance of left. 6.75 Turns head to midposition, head in line with trunk; leans slightly forward; flexes left leg, lifting foot 3 inches and moving leg forward; weight on hands and right foot.



- F 7.0 Extends left leg forward in abduction, foot lifted 2 inches. 7.25 Lowers left foot to platform in advance of right, left leg extended and abducted; tilts head slightly forward in midposition. 8.25 Lifts right heel; weight on hands and left foot. 8.75 Slides right foot forward on platform, leg extended; turns head half left, held erect and tilted toward right shoulder; erects trunk, leaning slightly to right.



- G 9.0 Places right foot on platform, leg extended, foot slightly in advance of left. 9.25 Lifts head in line with trunk; straightens trunk, leaning slightly forward; flexes left leg, lifting foot 2 inches and moving it forward; weight on hands and right foot. 9.5 Extends left leg forward, foot lifted 2 inches above platform.



- H 9.75 Lowers left foot to platform, leg extended and abducted, in advance of right. 10.5 Erects head, turned half left; erects trunk; lifts right heel; weight on hands and left foot. 11.0 Flexes right leg, lifting foot 1 inch and moving leg forward. 11.25 Extends right leg, lowering foot to platform in line with left; weight on hands and feet. 12.0 Flexes ankles, feet fixed on platform, legs extended, trunk leaning forward slightly. 12.5 Turns head to midposition and tilts it forward; erects trunk, feet fixed on platform. (Supported by Examiner, infant has walked forward ten steps.) (12.75 sec.)

BEHAVIOR SITUATION
STANDING
12.75 seconds
8 phases

Normative Series
Age: 52 weeks
Child: G48

Seconds



A 0.25 ¶ Stands facing foot of crib, supported by hands; head in mid-position, tilted slightly forward; trunk erect; arms flexed, right upper arm slightly abducted, left upper arm slightly abducted and directed slightly backward, both forearms directed forward at chest level; legs extended and adducted, feet on platform, right foot slightly in advance of left; weight on hands and feet. Regards surroundings. 0.75 Flexes left leg, lifting foot 1 inch and moving leg forward; weight on hands and right foot. 1.25 Erects head in midposition; flexes hips, leaning slightly forward.



B 1.5 Extends left leg in inward rotation, lowering foot to platform, slightly in advance of right.



C 1.75 Tilts head toward right shoulder; flexes right leg, lifting foot 2 inches and moving leg forward; erects trunk; weight on hands and left leg. 2.25 Extends right leg, lowering foot to platform in advance of left; flexes hips, leaning slightly forward.



D 2.75 Tilts head slightly forward in midposition; flexes left leg, lifting foot 2 inches and moving leg forward; weight on hands and right foot. 3.5 Extends left leg in inward rotation, lowering foot to platform slightly in advance of right; leans slightly farther forward. 4.0 Flexes right leg, lifting foot 2 inches and moving leg forward; erects trunk slightly; weight on hands and left foot. 4.5 Extends right leg, lowering foot to platform in advance of left. 4.75 Flexes left leg, lifting foot 2 inches and moving leg forward; erects trunk, right upper arm directed slightly backward, arm flexed and abducted, hand held; weight on hands and right foot. 5.25 Extends left leg in inward rotation, lowering foot to platform in advance of right.

BEHAVIOR SITUATION
STANDING

26.0 seconds
8 phases

Normative Series
Age: 48 weeks
Child: B21

Seconds



E ..15.25 Semi-squats before side rail; head erect, turned half left; arms flexed, right arm adducted, left arm abducted, forearms directed forward at chest level, hand holding palings of crib; legs flexed in outward rotation, right lower leg directed medially on platform, left foot on platform; leans slightly to right; regards lure held above crib rail. 16.0 Tilts head backward, turned half left; releases palings from left hand and semi-extends arm headward; weight on right hand, right lower leg, and left foot. 16.5 Grasps rail with left hand, arm semi-extended headward. 17.75 Releases palings from right hand and semi-extends arm headward; trunk straightens; weight on left hand, right lower leg, and left foot.



F 18.0 Erects head, turned half left; grasps rail with right hand and flexes arms, right arm abducted, left arm adducted, forearms directed forward at shoulder level; lifts trunk, pulling up by arms and extending left leg, foot fixed on platform; lifts right foot 2 inches, leg flexed. 18.5 Lowers right foot to platform, leg extended; stands erect, weight on hands and feet. 19.0 Lifts left leg 2 inches in semi-extension and abduction; shoulders lean to right, hips to left; weight on left hand and right leg. 19.25 Lifts left hand from rail and moves it to left, arm flexed and abducted, forearm directed forward at shoulder level; lowers left foot to platform, leg extended and abducted.



G 19.5 (Lure is placed on platform at left.) Tilts head forward, turned half left; grasps rail with left hand, arm flexed and abducted, forearm directed forward at shoulder level; straightens trunk, leaning slightly forward; right arm semi-extends laterally at shoulder level, hand holding rail; weight on hands and feet. 20.25 Semi-extends left arm laterally and forward, hand holding rail. 21.0 Lifts right hand from rail, moving it to left, arm flexed and abducted, forearm directed forward at shoulder level; weight on left hand and both feet. 21.25 Grasps rail with right hand, arm flexed and abducted, forearm directed forward at shoulder level; flexes and adducts right leg, lifting foot 1 inch; weight on hands and left foot.



H 21.75 Erects head, turned half left; flexes legs in outward rotation, toes on platform; squats, leaning slightly forward; arms extend headward, hands holding rail; weight on hands and toes; regards surroundings. 23.25 Turns head to erect midposition; directs right lower leg medially on platform, leg flexed in outward rotation; hips swing to right; lowers left heel to platform. 23.75 Flexes right arm, releasing rail, forearm directed headward; weight on left hand, left foot, and right lower leg. 24.5 Tilts head forward, turned half left; regards lure; grasps palings with right hand, arm flexed, forearm directed headward; extends left arm laterally and downward, releasing rail; weight on right hand, right lower leg, and left foot. 25.25 Swings hindbody to right over right lower leg, pivoting 90 degrees counter-clockwise, and sits. (26.0 sec.)

BEHAVIOR SITUATION
STANDING

26.0 seconds

8 phases

Normative Series

Age: 48 weeks

Child: B21

Seconds



- A 1.5 ¶ Stands holding crib rail, back to camera. (Lure is agitated above rail at left.) Takes one step to left with left foot. 1.5 Head is erect, turned half left; right arm flexed and abducted, forearm directed forward at shoulder level, hand holding rail; extends left arm laterally at shoulder level toward lure; legs extended and slightly abducted, feet on platform; trunk leans slightly forward and to left; weight on right hand and both feet. Regards lure. 1.75 Grasps rail with left hand, arm extended forward and laterally at shoulder level. 2.0 Flexes and moves right leg to left, lifting foot 2 inches; weight on hands and left foot.



- B 2.5 Extends right leg, lowering foot to platform in advance and to left of left foot; right arm extends laterally, left arm flexes and adducts, forearm directed forward, hands at shoulder level holding rail. 2.75 Flexes and moves left leg to left, lifting foot 2 inches; leans slightly forward and to right; weight on left hand and right foot.

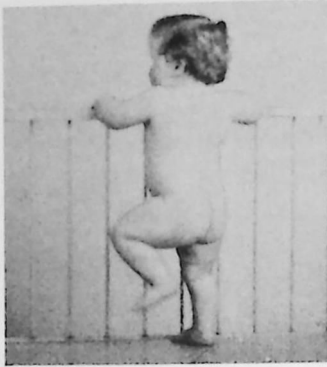


- C 3.25 Extends abducted left leg, foot lifted 2 inches; flexes right arm in abduction, sliding hand to left along rail; weight on left hand and right foot. 3.5 Lowers left foot to platform, leg extended and abducted; semi-extends left arm forward at shoulder level, lifting and moving hand to left; weight on right hand and both feet. 4.0 Leans forward and to left, right arm extending laterally, left arm semi-extending forward, hands at shoulder level holding rail. 4.5 (Lure is moved to right.) Turns head to midposition; flexes and moves right leg to left, lifting foot 2 inches; weight on hands and left foot. 5.0 Turns head half right; extends right leg, lowering toes to platform, ankles crossed.

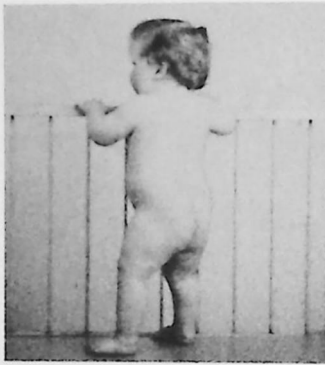


- D 5.5 Flexes and moves right leg to right, lifting foot 2 inches; trunk leans slightly forward, shoulders to left, hips to right. 6.0 Extends right leg in abduction, lowering foot to platform; straightens trunk, leaning slightly forward; right arm flexes and abducts, forearm directed forward, left arm extends laterally, hands at shoulder level holding rail; weight on hands and feet. 7.0 Flexes and moves left leg to right, lifting foot 1 inch; adducts flexed right arm, forearm directed forward, hand at shoulder level holding rail; weight on hands and right foot. 7.25 Extends adducted left leg, lowering toes to platform; trunk leans slightly forward, shoulders to left, hips to right. (Infant has cruised four steps to left—three described; then nine steps to right—two described.)

Seconds



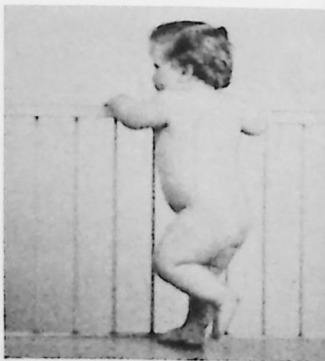
- E 7.0 Supporting weight on hands and right foot, flexes left leg, lifting foot 3 inches. 7.75 Lowers left foot to platform, leg extended and slightly abducted, slightly behind right foot; weight on hands and feet. 8.25 Turns head fully left, and turns shoulders left; left arm extends forward at shoulder level, arm adducted, hand fixed on rail. Regards surroundings. 10.25 Supporting weight on right hand and both feet, lifts left hand just above rail, arm extended forward at shoulder level. (Lure is agitated.)



- F 10.5 Turns head half left and straightens shoulders; flexes left arm, directing forearm forward at shoulder level, placing hand on rail; regards lure. 11.0 Lifts left hand just above rail, arm semi-extending forward in abduction at shoulder level. 11.25 Replaces left hand on rail, arm abducted and semi-extended forward at shoulder level. (Lure is quiet.) 11.75 Supporting weight on hands and right foot, flexes and adducts left leg, sliding foot along platform. 12.0 Extends left leg in adduction, foot on platform, slightly behind right.



- G 12.5 Supporting weight on hands and left foot, flexes right leg, lifting foot 3 inches; trunk leans slightly forward and to left; left arm flexes and adducts, forearm directed forward at chest level, hand fixed on rail. 13.0 Lowers right foot to platform, leg extended and adducted, slightly in advance of left; straightens trunk, leaning slightly forward.



- H 13.75 Supporting weight on hands and right foot, flexes left leg, lifting foot 3 inches; trunk leans slightly forward and to right; left arm semi-extended forward and laterally at shoulder level, hand fixed on rail. 14.5 Lowers left foot to platform, leg extended and adducted, slightly behind right foot. 15.0 Supporting weight on hands and left foot, flexes right leg, lifting foot 3 inches; trunk leans slightly forward, hips swinging to right. 15.5 Turns head to midposition; lowers right foot to platform, leg extended and abducted, slightly in advance of left; straightens trunk, leaning slightly forward; adducts flexed right arm, forearm directed forward at chest level. 16.0 Extends left arm laterally at shoulder level, hands fixed on rail. Regards surroundings. (Infant stands holding crib rail, having reached toward lure and taken steps alternately without progression.) (16.0 sec)

BEHAVIOR SITUATION
STANDING

16.0 seconds
8 phases

Normative Series
Age: 44 weeks
Child: B21

Seconds



A 0.25 ¶ Stands at crib rail, back to camera; head erect, turned half left; arms flexed, forearms directed forward at chest level, hands holding crib rail; legs extended and adducted, feet on platform; trunk erect; weight on hands and feet. (Examiner, standing slightly at infant's right, shakes lure at left.) Regards lure.



B 1.0 Supporting weight by right hand and both feet, lifts left hand and extends arm laterally at shoulder level toward lure. 2.0 Turns head to midposition; regards Examiner. Flexes and adducts left arm, directing forearm forward at chest level and grasping rail with hand; weight on hands and feet. 2.5 Tilts head slightly backward in midposition; abducts left arm, hand fixed on rail, forearm directed forward at shoulder level. 3.25 Tilts head slightly forward in midposition; supporting weight on left hand and both feet, abducts right arm, forearm directed forward at shoulder level, lifting hand just above rail; regards hands.



C 3.5 Replaces right hand on rail, arm flexed and abducted, forearm directed forward at shoulder level; semi-extends right leg, lifting heel from platform; trunk lifts slightly. 4.0 Lifts left heel from platform; weight on hands and toes.



D 4.5 Lowers left heel to platform, lowering trunk slightly; supporting weight on hands and left foot, flexes and abducts right leg, lifting foot 3 inches. (Examiner moves to left.) 5.0 Pulls head erect, turning it half left; regards Examiner; lowers right foot to platform, leg extended and abducted, slightly in advance of left. 6.5 Flexes and adducts right leg, lifting foot 1 inch. 6.75 Lowers right foot to platform, leg extended and adducted, slightly in advance of left.

Seconds



- E 9.0 Semi-extends left leg and extends right leg slightly forward, feet fixed on platform, flexed hips projecting slightly backward and to left, trunk leaning slightly forward and turning slightly to right; right arm extends forward at ear level. 9.5 Erects head in midposition; straightens and erects trunk, legs extended, feet fixed on platform.



- F 10.0 Regards Examiner. Flexes right arm in abduction, forearm directed forward at shoulder level; ankles flex, feet fixed on platform, legs extended, trunk leaning slightly forward. 10.5 Erects trunk; arms extend forward at shoulder level.



- G 11.0 (Examiner holds both hands.) Turns head half left, held erect; regards surroundings. 11.5 Flexes left arm, forearm directed forward and laterally at shoulder level; flexes hips slightly, feet fixed on platform, legs extended, hips projecting slightly backward. 12.0 Turns head to midposition, held erect; extends left arm forward at shoulder level. 12.25 Semi-extends right arm forward at shoulder level; erects trunk.



- H 12.75 Regards Examiner. Extends right arm forward at shoulder level; trunk leaning slightly backward; legs extended, ankles slightly extended, feet fixed on platform. 13.75 Tilts head slightly backward in midposition. (14.75 sec.)

BEHAVIOR SITUATION
STANDING

14.75 seconds
8 phases

Normative Series

Age: 36 weeks

Child: G48

Seconds



A 1.5 ¶ Stands, supported by hands, head erect, turned half left; regards curtain at left; right arm flexed, forearm directed forward at chest level, left arm extended forward and laterally at shoulder level; legs extended, feet on platform; trunk leans slightly forward.



B 3.75 Flexes left arm, disengaging hand, and directs forearm forward and laterally toward curtain; turns head fully left; turns trunk left and begins to fall backward, right arm extending laterally at shoulder level, hand held by Examiner; right leg semi-extends, extended left leg directed medially and downward, feet fixed on platform. 4.0 (Examiner holds right hand and left chest.)



C 5.25 Turns head to midposition, held erect; regards Examiner; straightens trunk, leaning backward slightly, and extends legs, feet fixed on platform; right arm extends forward at chest level; directs left forearm forward at chest level, arm flexed. 6.25 Flexes right arm, directing forearm forward at chest level; erects trunk. 6.75 Turns head half left; regards surroundings; extends left arm forward and laterally toward curtain; abducts flexed right arm, forearm directed forward at chest level.



D 7.5 Tilts head forward, turned half left; flexes hips slightly, legs extended, feet fixed on platform, trunk leaning slightly forward. 8.5 (Examiner holds right hand and left forearm.)

BEHAVIOR SITUATION STANDING

14.25 seconds
4 phases

Normative Series
Age: 28 weeks
Child: G44

An
Atlas of
Infant Behavior

Seconds



A 2.25 ¶ Infant is lowered in standing position to platform, held under axillae and at sides of chest. 2.25 (Examiner gives partial support.) Head is in midposition, tilted slightly forward; trunk leans slightly forward; right arm extends downward at side, hand holding bells; left arm not visible; legs extended slightly forward, toes on platform. Regards surroundings. 3.25 Lowers heels to platform. 3.75 Erects trunk, legs extended; lifts heels from platform. 4.0 Pulls head to erect forward position, held in midline; semi-extends left arm forward at chest level; leans slightly backward.



B 4.5 Flexes legs 90 degrees at hips and knees, toes fixed on platform; erects and lowers trunk; lifts right arm to lower chest level, extending arm laterally; extends left arm downward. 5.0 Extends legs, toes fixed on platform; lifts trunk (Examiner assisting). 5.75 Extends right arm downward; flexes right leg, lifting foot 1 inch. 6.0 Flexes legs 90 degrees at hips and knees, toes fixed on platform; lowers trunk; lifts right arm slightly, extending it laterally, forward, and downward. 6.5 Semi-extends left arm forward at chest level; extends legs, toes fixed on platform; lifts trunk (Examiner assisting).



C 6.75 Semi-extends legs, toes fixed on platform; leans slightly backward; semi-extends right arm forward at lower chest level. 7.25 Erects head in midposition; directs semi-extended left arm forward and downward on Examiner's arm; lowers right heel to platform; erects trunk. 7.5 Lifts right arm to lower chest level, extending it laterally, forward, and downward; flexes right leg 90 degrees at hip and knee, foot fixed on platform; flexes left leg, lifting foot 1 inch; lowers trunk. 7.75 Flexes left leg 90 degrees at hip and knee, lowering foot to platform. 8.25 Extends legs, lifting heels, toes fixed on platform; lifts trunk (Examiner assisting) and leans slightly backward. 8.5 Regards Examiner. 9.0 Lowers heels to platform; erects trunk.



D 9.5 Turns head to right; flexes legs acutely, toes fixed on platform; lowers trunk, leaning slightly backward; extends right arm forward and downward on Examiner's arm. Regards surroundings. 10.25 Extends legs, toes fixed; erects and lifts trunk (Examiner assisting); extends left arm downward. 11.0 Flexes legs and lowers trunk, leaning slightly backward. 11.5 Extends legs; erects and lifts trunk (Examiner assisting). 12.0 Semi-extends legs, toes fixed on platform; leans slightly backward. 12.5 Erects trunk. 13.0 Turns head to midposition; flexes right arm, directing foot forward at shoulder level; flexes legs acutely in outward rotation, lowering trunk, and leans slightly backward. 14.0 Semi-extends right arm forward at chest level; extends legs; erects and lifts trunk (Examiner assisting). (14.25 sec.)

Seconds



- E 7.5 Erects head, turned half right; semi-extends right leg, lowering toes to platform; semi-extends left leg in inward rotation, lifting heel from platform; erects and lifts trunk slightly. 8.0 Abducts and semi-extends right arm forward at chest level; semi-extends left arm forward at shoulder level. 8.5 Turns head to midposition, tilting it slightly forward; semi-extends abducted right arm downward; lowers left heel to platform, leg semi-extended without rotation; leans forward and lowers trunk slightly. 8.75 Turns head half right; flexes arms, directing forearms medially at chest level. 9.0 Abducts and extends left arm laterally and downward.



- F 9.25 Semi-extends arms, right arm abducted and directed downward, left arm directed forward and downward; flexes legs 90 degrees at hips and knees in outward rotation, toes fixed on platform; trunk lowers and leans forward slightly. 9.75 Semi-extends left arm forward, medially, and downward; lifts flexed left leg 1 inch; erects trunk slightly. 10.0 Flexes left arm, directing forearm forward and medially at chest level; semi-extends left leg, lowering foot to platform; lifts flexed right leg 1 inch. 10.5 (Examiner lifts trunk.) Flexes right arm, directing forearm medially at chest level; legs extend, toes fixed on platform; trunk is lifted.



- G 10.75 Erects head, turned half right; semi-extends arms forward at chest level, right arm abducted slightly. 11.0 (Examiner lessens weight support.) 11.25 Tilts head slightly forward, turned half right; semi-extends right arm forward, downward, and medially; semi-extends left arm forward and downward; lowers left heel to platform; leans forward slightly. 11.5 Flexes arms, directing forearms medially, arms in contact across chest. 12.0 Erects trunk slightly. 12.5 Clasps hands; lowers right heel to platform; leans forward slightly.



- H 13.5 Erects head, turned half right; lifts clasped hands to mouth; erects trunk slightly. 14.75 Turns head half left, held erect; lowers right hand from mouth, forearm directed medially at upper chest level; opens both hands. 15.25 Abducts and semi-extends right arm forward at chest level; lowers left hand from mouth, forearm directed forward at chest level. 15.5 Tilts head slightly forward, turning it half right; extends right arm laterally and downward, closing right hand; semi-extends legs, feet fixed on platform; leans forward and toward right. (15.75 sec.)

BEHAVIOR SITUATION
STANDING15.75 seconds
8 phases

Normative Series

Age: 20 weeks

Child: B38

Seconds

- A** 0.25 ¶ Infant is held in standing position, partially supported under axillae and at sides of chest. Head is turned to right and tilted forward; trunk leans slightly forward; arms flexed, right forearm directed medially and headward, closed hand at mouth; left forearm directed medially, open hand on chest; right leg flexed in outward rotation, foot lifted 2 inches; left leg extended, toes on platform. Regards surroundings. 1.0 Lowers left heel to platform, lowering trunk slightly. 1.75 Semi-extends both legs, lowering right toes to platform, left foot fixed on platform, legs adducted.
- B** 2.25 Extends both legs, right toes and left foot fixed on platform, lifting trunk slightly. 2.75 Turns head half right, tilted forward; opens right hand; directs left forearm forward and medially at chest level; lifts left heel from platform.
- C** 3.75 Abducts extended right leg 4 inches, toes on platform, and lowers left heel to platform; leans farther forward and lowers trunk slightly. 4.25 Erects trunk slightly and pulls head erect, turned half right. 4.75 Semi-extends right arm forward and slightly downward, arm slightly abducted; semi-extends right leg, lowering heel to platform. 5.25 (Examiner lifts trunk slightly.) Semi-extends both arms forward at chest level; extends right leg, lifting heel from platform; trunk lifts slightly.
- D** 5.5 Directs semi-extended right arm laterally and slightly forward at chest level, arm abducted. 5.75 (Examiner lessens weight support.) Directs both semi-extended arms forward and downward at abdominal level; lowers trunk slightly. 6.25 (Examiner lifts trunk slightly.) Flexes right arm, directing forearm medially at upper chest level; extends left arm forward at shoulder level; trunk lifts slightly. 6.5 (Examiner lessens weight support.) Flexes left arm, directing forearm medially at chest level, forearms in contact across chest; semi-extends right leg, lowering heel to platform. 7.0 Tilts head slightly forward, turned half right; flexes right leg in outward rotation, adducting and lifting foot 2 inches; leans forward and lowers trunk slightly.

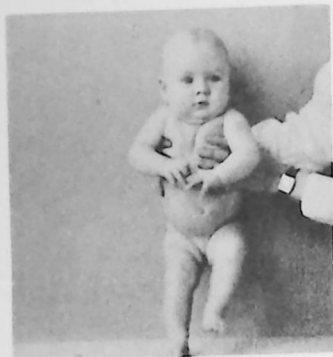


BEHAVIOR SITUATION
STANDING

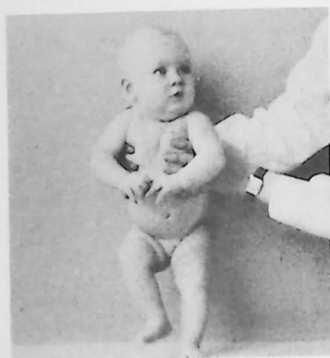
19.5 seconds
8 phases

Normative Series
Age: 16 weeks
Child: G46

Seconds



- E 11.0 Turns head half left; flexes and adducts left leg, lifting foot 1 inch.
11.25 Lowers left foot to platform, leg semi-extended and adducted, feet in line.



- F 12.25 Turns head fully left and regards Examiner; flexes right leg in outward rotation, lifting foot 1 inch. 12.75 Lowers right foot to platform, leg semi-extended and adducted. 13.0 Flexes left leg, lifting heel, and slides toes backward, left foot slightly behind right; trunk lowers slightly.



- G 13.5 (Examiner lifts trunk slightly.) Turns head half left, tilting it slightly forward and toward right shoulder; regards hands. 14.5 (Examiner lessens weight support.) Turns head to midposition; clasps left hand with right and lifts hands to upper chest level; flexes legs 90 degrees at hips and knees, right foot and left toes fixed on platform; trunk lowers. 15.25 Lifts hands to chin. 15.75 Legs flex acutely, feet fixed on platform; trunk lowers farther. 16.25 Lowers clasped hands to lower chest level; lifts trunk slightly, legs flexing 90 degrees at hips and knees, feet fixed on platform. 17.0 Regards surroundings. 17.5 Lifts clasped hands to upper chest level; opens mouth.



- H 18.0 Lifts clasped hands to chin; legs flex acutely in outward rotation, feet fixed on platform; trunk lowers, buttocks 1 inch above platform. 18.25 Closes mouth; turns head half right, tilted slightly forward and to right. (19.5 sec.)

BEHAVIOR SITUATION
STANDING

19.5 seconds

8 phases

Normative Series

Age: 16 weeks

Child: G46

Seconds

- A** 0.25 ¶ Infant is held in standing position, Examiner's hands under axillae and at sides of chest giving partial support. Head is erect in midposition; trunk leans slightly forward; arms flexed, right forearm directed medially at chest level, left forearm directed medially and slightly downward, hands closed; legs semi-extended and adducted, toes on platform. Regards surroundings. 1.0 Extends both legs, lifting trunk slightly. 1.25 Tilts head slightly forward; semi-extends right arm forward and laterally at chest level, abducting upper arm slightly; semi-extends left arm forward and slightly downward.
- B** 1.5 Flexes right arm, upper arm slightly abducted, forearm directed forward; semi-extends left leg, lowering heel to platform, and flexes right leg, lifting foot 3 inches; trunk lowers slightly. 1.75 Turns head half right and regards right hand; semi-extends right leg, lowering foot to platform slightly in advance of left. 2.25 Flexes left arm, forearm directed medially at lower chest level; extends right leg, lifting both heels from platform and lifting trunk slightly. 2.75 Turns head half left and regards left hand; directs right forearm forward and medially, arm flexed, upper arm slightly abducted.
- C** 3.0 Lowers right heel to platform; flexes and abducts left leg, lifting foot 1 inch; trunk lowers slightly. 3.25 Lowers left toes to platform, leg flexed and abducted. 3.5 Lifts left foot 1 inch. 3.75 Lowers left foot to platform, leg semi-extended and slightly abducted, right foot still slightly in advance of left. 4.0 (Examiner assumes weight support.) Erects head in half left position; regards surroundings; semi-extends right arm forward, medially, and slightly downward, upper arm abducted. 5.0 Moves flexed left arm medially. 5.25 Turns head to midposition.
- D** 6.0 Turns head half right; flexes right arm, directing forearm medially, hands contacting at lower chest level; opens left hand. 7.25 Opens right hand. 8.25 (Examiner gently shakes the trunk laterally.) Turns head to midposition; head and trunk move from side to side, head compensating. 9.5 (Examiner gently shakes the trunk antero-posteriorly.) Head and trunk move forward and backward, head compensating.



Seconds



A 0.25 ¶ Infant is held upright in standing position, supported under axillae and at sides of chest. Head is erect and slightly forward in midposition; trunk erect; arms flexed, forearms directed forward at chest level, hands closed; legs adducted and extended forward, toes on platform, left leg directed slightly forward in advance of right. Regards surroundings. 0.75 (Examiner lessens weight support.) Legs semi-extend, toes fixed on platform; trunk leans forward and lowers slightly. 1.25 Extends legs, lifting trunk slightly. 1.75 Flexes legs, left heel lowering to platform; trunk lowers slightly. 2.0 (Examiner resumes weight support.)



B 2.25 Semi-extends right leg, toes fixed on platform, lifting trunk slightly; flexes left leg, lifting foot 3 inches above platform. 2.75 Directs right forearm forward and medially; extends left leg, lowering toe to platform, left foot crossed over right. 3.5 Extends right leg, toes fixed on platform, lifting trunk farther. 4.25 Directs left forearm forward and slightly downward, opening hand; semi-extends legs, lowering trunk slightly. 6.0 Lowers left heel to platform; flexes right leg, lifting foot 1 inch.



C 7.25 (Examiner lessens weight support.) Flexes left leg, heel lifted, lowering trunk farther. 8.0 Directs right forearm forward; extends both legs downward and slightly forward, lowering right foot to platform, left heel lifted; lifts trunk slightly. 8.5 (Examiner resumes weight support.) Lifts right leg 1 inch, extending it forward and medially. 8.75 Semi-extends both legs, lowering right toes to platform, right foot crossed over left.



D 9.25 Directs right forearm forward and slightly downward; extends left leg, toes fixed, and flexes right leg, lifting foot 1 inch, uncrossing feet. Semi-extends right leg, lowering toes to platform. 10.5 (Examiner gently shakes the trunk antero-posteriorly.) Trunk moves forward and backward; legs flex, toes fixed on platform. 10.75 Head wobbles slightly forward and backward. 11.0 Lifts left foot 1 inch, leg flexed. 11.25 Directs right hand; extends legs, lowering left toes to platform, legs directed downward and slightly forward. 11.75 (Examiner gently shakes the trunk laterally.) Trunk moves from side to side; head wobbles; closes right hand. 12.25 Directs left forearm forward; semi-extends both legs, toes fixed on platform. (13.0 sec.)

Seconds



- A 0.25 ¶ Infant is held upright in standing position, supported under axillae and at sides of chest. Head droops slightly forward, trunk leans slightly forward, back rounded; right arm semi-extended forward and medially at chest level; left arm semi-extended forward and somewhat laterally; hands closed; legs adducted and semi-extended, feet on platform. Regards surroundings. 2.5 Directs left arm forward and slightly downward.



- B 3.5 (Examiner lessens weight support.) Extends both legs, erecting trunk slightly; holds head in line with trunk.



- C 4.75 Head droops forward on chest; feet slide slightly forward on platform and legs semi-extend, trunk leaning forward. 6.25 Flexes right arm, directing forearm forward and medially. 7.5 (Examiner resumes weight support.) Holds head drooping slightly forward, trunk leaning slightly forward; semi-extends right arm forward, medially, and slightly downward. 9.75 (Examiner gently shakes the trunk antero-posteriorly.) Trunk moves forward and backward, head remains drooping slightly forward.



- D 11.0 (Examiner gently shakes the trunk laterally.) Trunk moves from side to side; head wobbles in erect forward position; directs both semi-extended arms forward. 13.25 Directs left arm forward and laterally. 14.25 (Examiner gently shakes the trunk antero-posteriorly.) Trunk moves forward and backward, head held erect in forward position. (15.75 sec.)

Seconds



- A 0.25 ¶ Infant is held upright in standing position, supported under axillae and at sides of chest. Head is in midposition in line with trunk leaning slightly forward, back slightly rounded; arms flexed, forearms directed forward and medially, hands closed; legs adducted and semi-extended downward, feet on platform. Regards surroundings. 1.0 (Examiner tests weight support, reporting "slight resistance to platform.") 1.25 Semi-extends arms medially and downward. 2.0 Directs right arm forward, medially, and downward. 2.75 Directs right arm medially and downward. 3.0 Turns head half right, holding it in line with trunk.



- B 3.75 Erects trunk slightly by semi-extending hips; directs both semi-extended arms forward, medially, and downward. 4.25 Leans slightly forward, semi-flexing hips. 5.75 (Examiner lessens weight support.)



- C 6.0 Legs flex as trunk lowers; head droops forward. Directs arms medially and downward. 7.25 (Examiner resumes weight support and gently shakes the trunk antero-posteriorly.) Trunk moves forward and backward, head remaining in line with trunk. 8.0 Directs arms downward. 9.5 (Examiner gently shakes the trunk laterally.) Trunk moves from side to side; head wobbles. . . (Infant is turned to face camera.) 10.25 Head is turned half right in line with trunk leaning slightly forward; arms semi-extended; right arm directed forward and laterally at chest level, left arm directed laterally at shoulder level; legs adducted and semi-extended, feet on platform. 11.25 Turns head fully right; directs arms forward, laterally, and downward. 12.25 (Examiner lessens weight support.) Legs flex as trunk lowers.



- D 13.75 Head droops forward. 14.75 Legs flex 90 degrees at hips and knees as trunk lowers. 15.75 Directs right arm forward, medially, and downward. 16.25 Flexes right arm, directing forearm forward, medially, and downward. (16.75 sec.)

BEHAVIOR SITUATION STANDING

12.0 seconds

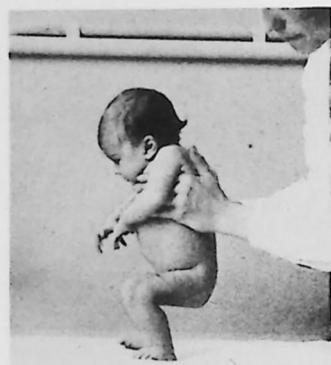
4 phases

An
Atlas of
Infant Behavior

Seconds



A 0.25 ¶ Infant is held upright in standing position, supported under axillae and at sides of chest. Head is in midposition, drooping forward on chest; arms are close to trunk, right arm semi-extended forward, downward, and medially, left arm flexed, forearm directed forward and medially; hands open; legs are adducted and semi-extended, feet on platform; back is slightly rounded. 0.5 (Examiner lessens weight support.) Legs flex slightly, right foot lowering to platform; trunk lowers slightly.



B 1.25 Legs flex 90 degrees at hips and knees, feet fixed on platform, trunk lowering slightly farther; leans slightly forward. 2.25 (Examiner lifts trunk to upright standing position.) Legs are semi-extended, feet on platform. 2.5 Slides right foot slightly forward on platform; left arm semi-extends forward, downward, and medially. 3.25 Directs semi-extended right arm downward and medially; leans slightly forward. 3.75 (Examiner moves trunk slightly forward.) Legs are semi-extended, feet on platform; directs semi-extended left arm downward and medially.



C 6.0 Leans farther forward, back rounding uniformly. 7.75 Directs semi-extended right arm forward, downward, and medially. 8.25 (Examiner lessens weight support.) Legs flex 90 degrees at hips and knees, trunk lowering. 9.0 Directs semi-extended right arm downward and medially. 10.25 As trunk lowers, legs flex acutely, left hand rests on left knee.

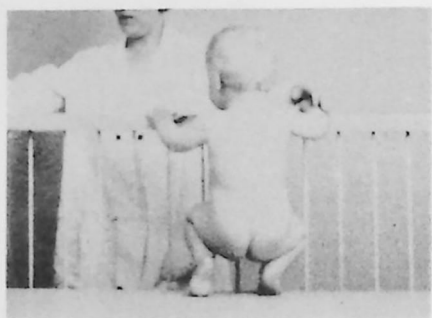


D 11.0 Trunk lowers, buttocks touching platform. Sits with back rounded, legs acutely flexed, left leg rolled inward, feet fixed on platform (12.0 sec.)

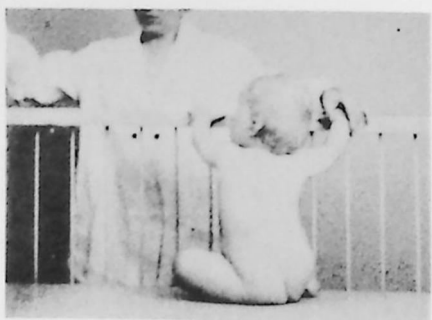
Seconds



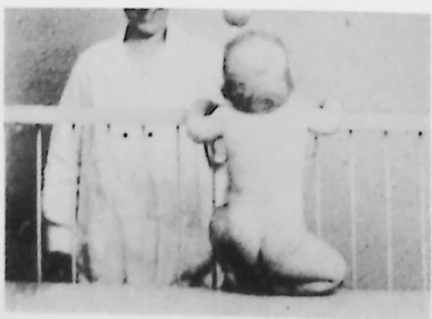
- E 6.75 Leaning slightly forward and, turning slightly left, begins to lower trunk, legs flexing, right leg outwardly rotated, left leg inwardly rotated; retains hold of rail with both hands. 7.25 Lowering trunk, rolls left leg outward; turns head half left and regards Examiner.



- F 7.5 Turns trunk, facing directly forward as he reaches the squatting position; arms flexed, upper arms abducted, forearms directed forward at shoulder level, hands holding rail. 7.75 Rolls flexed right leg inward. 8.0 Turns head fully left.



- G 8.25 Lowers buttocks to platform and sits, trunk rotated slightly to left, legs flexed on platform, right leg inwardly rotated, left leg outwardly rotated, arms semi-extended headward and forward at ear level, hands holding rail. 8.5 (Examiner brings new lure from left toward infant.) 8.75 Sits erect, legs flexed in outward rotation on platform, arms semi-extended headward and forward at ear level, hands open, head turned half left; regards lure held slightly to left at vertex level. 9.0 Lowers arms, semi-erect, extending them forward and downward, hands on thighs. 9.25 Semi-erect, extends arms headward and forward at ear level, grasping rail with both hands; rolls left leg inward; turns head to midposition.



- H 10.75 Pulling up by arms, lifts buttocks clear of platform; weight on hands, left foot, and right lower leg. 11.25 Supporting weight on hands and left foot, extends left leg, erecting trunk, right leg semi-erect, extending. 11.5 As trunk rises, right arm semi-extended, forearm directed forward, hands on rail. 11.75 Lifts right leg 4 inches in flexion and abduction. 12.0 Lowers right foot to platform, right leg extended and slightly abducted, and stands erect, holding crib rail. (Lure is moved to left.) Turns head half left. (12.25 sec.)

SITTING

12.25 seconds

8 phases

Normative Series

Age: 52 weeks

Child: B38

Seconds

- A** 0.5 ¶ Sits leaning slightly forward, facing left side of crib, back to camera; right leg flexed in outward rotation on platform, left leg extended forward in slight abduction on platform, foot against paling of crib; right arm semi-extended forward and headward at ear level, left arm flexed, upper arm adducted, forearm directed forward and headward at ear level; holds crib rail with both hands; head erect in midposition. Regards lure held slightly to left at vertex level. 0.75 Pulling up by arms, lifts buttocks clear of platform; weight on hands, left foot, and right lower leg. 1.0 Flexes right arm, upper arm abducted, forearm directed medially along rail.
- B** 1.5 Swings right lower leg medially and slightly backward under buttocks. 1.75 Turns head half left; gradually erects himself, leaning slightly forward and to right, left arm semi-extending forward and laterally at chest level; weight on right forearm, left hand, and right lower leg; flexes left leg, lifting it 1 inch.
- C** 2.0 Places left foot on platform beside right foot, left leg flexed and abducted in outward rotation. 2.5 Flexes left arm, upper arm abducted, forearm directed forward at chest level. 3.0 Pushing up with left leg, right leg semi-extends. 3.25 Supporting weight on left hand, right forearm, and fully extended left leg, lifts right leg 2 inches in flexion and abduction.
- D** 3.5 Lowers right foot to platform, leg extended and abducted, and stands leaning slightly forward, holding crib rail. 4.0 Stands erect, arms semi-extending forward and downward to crib rail. (Lure is moved to left.) 4.75 Lifts left hand from rail, extending arm laterally at chest level, hand open. 5.25 Leans slightly to left, right arm semi-extended forward and laterally to rail; weight on right hand and left leg. 5.5 Lifts right leg 1 inch in flexion and abduction. 5.75 Lowers right foot to platform, leg extended and abducted; lowers left hand to rail, arm semi-extended forward and laterally. 6.25 Turns head fully left, trunk slightly to left; right arm semi-extends backward and laterally to rail.

Seconds



- E 4.5 Lowers left leg in semi-extension and moderate adduction to platform; flexes right arm, directing forearm forward at chest level. 4.75 Closes left hand; trunk rocks backward and legs lift 1 inch in extension and adduction. 5.0 Extends left arm laterally at chest level, opening hand. 5.25 Erects trunk, lowering legs in semi-extension and abduction to platform; turns head half left, straightening shoulders. Regards surroundings. 5.5 Semi-extends left arm laterally and forward at chest level.



- F 5.75 Swings semi-extended right leg toward left, trunk pivoting slightly counter-clockwise; flexes left arm, directing forearm laterally and forward at chest level. 6.25 Turns head fully left and regards lure; flexes left leg on platform.



- G 6.5 Semi-extends left leg and swings it toward left, trunk pivoting counter-clockwise, right leg rolling inward. (Infant has pivoted almost 90 degrees and faces foot of crib.) 7.0 (Examiner tries to place lure in infant's left hand.) Withdraws left hand from lure. 9.75 Touches lure with left hand; directs right forearm forward and laterally at shoulder level. 10.25 Withdraws left hand from lure. 11.25 Touches lure with left hand. 11.5 Turns head half left. 13.75 Grasps lure with left hand.



- H 14.5 Turns head to midposition; directs left forearm forward and head forward, holding lure at ear level. Semi-extends right arm forward and medially at shoulder level. (15.0 sec.)

SITTING

15.0 seconds

8 phases

Normative Series

Age: 48 weeks

Child: B38

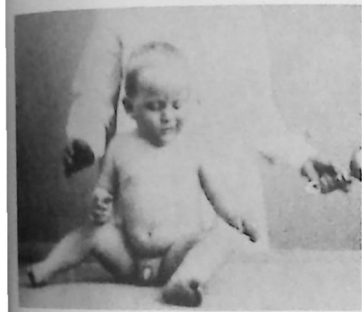
Seconds

- A 0.25 ¶ Sits unsupported, facing right side of crib; head erect and turned fully left, trunk erect, shoulders turned slightly to left; right arm flexed, forearm directed forward and downward, open hand resting on right knee; left arm extended downward at side of trunk, hand open; right leg semi-extended and inwardly rotated in wide abduction; left leg flexed in outward rotation. (Legs are outwardly rotated, unless otherwise stated.)

- B 0.5 Turns head to midposition, straightening shoulders. Regards surroundings. 1.0 Closes right hand; semi-extends left arm forward and downward, closed left hand resting on left knee. 1.25 Opens left hand. 1.5 Turns head fully left, shoulders slightly to left, and regards lure; flexes left arm, directing forearm forward, downward, and somewhat medially, hand resting on left thigh. 2.0 Extends right arm downward and medially, opening hand. 2.25 Semi-extends left arm laterally at chest level; rolls right leg outward. 2.75 Turns head half left and regards surroundings; lifts left leg 1 inch in flexion and swings it slightly toward left.

- C 3.0 Lowers left leg to platform in flexion and slight abduction; opens left hand. 3.25 Turns head fully left, shoulders slightly farther to left, and regards lure. 3.5 Semi-extends right arm forward and medially at lower chest level; directs semi-extended left arm laterally and forward at chest level; lifts right leg 1 inch in semi-extension and inward rotation and swings it slightly toward left; semi-extends left leg, swinging it toward right.

- D 4.0 Directs right arm forward and downward in semi-extension; flexes left arm, directing forearm laterally and forward at chest level; closes left hand; lowers right leg in semi-extension, outward rotation, and slight abduction to platform. 4.25 Opens left hand; lifts left leg 1 inch in semi-extension and swings it slightly toward left, trunk pivoting slightly counter-clockwise.



Seconds



- E 3.25 Suddenly lowers buttocks to platform and sits leaning forward, chin 5 inches above platform, legs acutely flexed in outward rotation on platform; slides right hand slightly forward on platform, left arm flexing, forearm directed forward, hand fixed on platform. 3.5 Lifts flexed left arm 2 inches, forearm directed forward. 3.75 Lowers left hand to platform, arm extended forward in advance of right; lifts hips and rolls right leg inward, rising to right foot, leg acutely flexed, and to left knee, lower leg directed medially, foot in front of pubis; chin 6 inches above platform; weight on hands, right foot, and left knee. (Approximates creeping position.) 4.0 Lifts right arm 2 inches, extending it forward.



- F 4.25 Lowers right hand to platform, arm extended forward in advance of left; supporting weight on hands and right foot, lifts and adducts flexed left leg, moving knee forward and swinging foot under pelvis, lower leg directed medially and backward. 4.5 Lowers left knee to platform in advance of right foot, left lower leg directed medially under buttocks; weight on hands, right foot, and left knee. 4.75 Lifts left hand 4 inches, arm extended forward.



- G 5.0 Lowers left hand to platform, arm extended in line with right arm (Examiner releases lure on platform.) Regards surroundings. 5.25 Shifting weight to right hand and left knee, lifts left hand 3 inches, arm extending forward, and lifts right foot slightly, moving it forward.



- H 5.5 Lowers left hand to platform, arm extended forward in advance of right arm; lowers right foot to platform in advance of left knee; weight on hands, right foot, and left knee. 5.75 Lifts right arm 4 inches, extending it forward beyond lure. 6.5 Lowers right hand to platform, touching end of crib, arm extended forward in advance of left arm. (6.75 sec.)

BEHAVIOR SITUATION
SITTING

6.75 seconds
8 phases

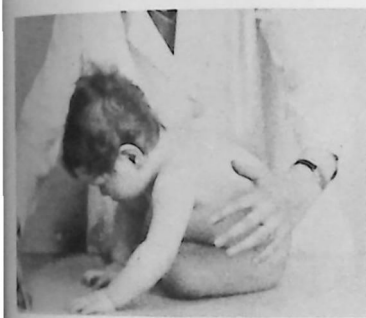
Normative Series
Age: 44 weeks
Child: G44

Seconds

A 0.25 ¶ Sits unsupported, facing head of crib; head in midposition in line with trunk; trunk leans forward; right arm extended forward and downward toward lure, open hand 1 inch above platform; left arm extended downward and slightly forward, open hand on platform; legs acutely flexed in wide outward rotation, feet on platform. Regards lure on platform before him. 0.75 Lowers right hand to platform in line with left. 1.25 Lifts left arm 2 inches, semi-extending it forward.



B 1.5 Lowers left hand to platform in advance of right. 2.0 Lifts right arm 2 inches, extending it forward; rolls right leg inward, standing on foot, leg acutely flexed; weight rests on left hand, right foot, and left buttock.



C 2.25 Turns head half left; extends left arm, hand fixed on platform; lowers right hand momentarily to platform; abducts flexed left leg, trunk pivoting slightly counter-clockwise. 2.5 Lifts right arm to shoulder level, extending it forward and medially.



D 3.0 Lowers right hand to platform, arm extended in line with left; lifts hips, rising to left knee, lower leg directed medially, foot in front of pubis; head in midposition, chin 6 inches above platform; weight on hands, right foot, and left knee. (Approximates creeping position.) (Examiner draws lure along platform about 6 inches before infant.)



SITTING

11.75 seconds

8 phases

Seconds



- E 7.25 Opening left hand, semi-extends left arm across chest toward right, shoulders turning fully right; is now in semi-recumbent position, head and upper trunk facing right head corner of crib, head in midposition; right arm extended forward, hand on platform; pelvis rolled to right; weight on right hand, right hip and leg.



- F 7.5 Extends left arm forward, hand on platform; flexes right leg on platform; is now almost in prone position, head in midposition, chin 4 inches above platform, chest 1 inch above platform; pelvis rolled beyond right; weight on both hands, right hip and flexed right leg.



- G 9.0 Semi-extends both arms, forearms directed forward and medially on platform, lowering chest to platform and lowering head, chin 2 inches above platform; lifts extended left leg 2 inches above platform. 10.25 Lowers both feet to platform, right leg flexed, left leg extended.



- H 11.0 (Lure is placed on platform at infant's right.) Lies in prone position, head turned half right, chin 3 inches above platform; arms flexed, right forearm directed forward and medially on platform; left forearm forward, hand on platform; legs flexed in outward rotation and slight abduction, right foot lifted 2 inches, left foot lifted 3 inches; hips low. Regards lure. (11.75 sec.)

BEHAVIOR SITUATION

SITTING

11.75 seconds

8 phases

Normative Series

Age: 40 weeks

Child: G31

Seconds



A 0.25 ¶ Sits unsupported, facing foot of crib; head turned right and tilted slightly forward; trunk erect and leaning very slightly to right, upper trunk rotated toward right; right leg extended in adduction and outward rotation on platform; left leg extended in slight abduction without rotation 1 inch above platform; right arm extended laterally downward and slightly backward toward lure, open hand 2 inches above platform; left arm extended laterally at shoulder level. Regards lure on platform at right. 0.5 Lowers and adducts right arm, fingers touching platform; lowers left leg to platform. 0.75 Leans very slightly forward.



B 1.25 Erects trunk, upper trunk still rotated toward right; erects head; flexes left arm, directing forearm forward at chest level; closes left hand. Regards surroundings. 2.0 Directs left forearm medially and downward, resting open left hand on left knee. . . 2.5 Tilts head slightly forward and regards lure; leans slightly forward and to right, right arm extended laterally and slightly backward toward lure, hand on platform; moves left forearm medially, closed hand resting on right knee. 2.75 Lifts flexed left arm to chest level, forearm directed forward and medially; opens left hand. 3.5 Erects trunk, still leaning to right, upper trunk rotated to right; lifts right arm 2 inches, arm extended laterally, downward, and slightly backward.



C 4.0 Leans slightly farther to right, lifting right foot just above platform, and left leg 3 inches; lowers extended right arm, hand touching lure; lifts flexed left arm to shoulder level, forearm directed forward and medially; closes left hand. 4.75 Closes right hand on lure. 5.0 Slides right arm 1 inch laterally, hand holding lure; lowers left leg to platform. 5.25 Lifts left leg 1 inch.

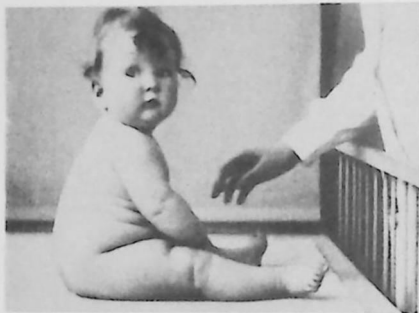


D 5.75 Slides right arm farther laterally, leaning even farther to right; lifts left leg 3 inches in extension and adduction, rolling pelvis toward right; weight rests on right hand, right buttock and leg.

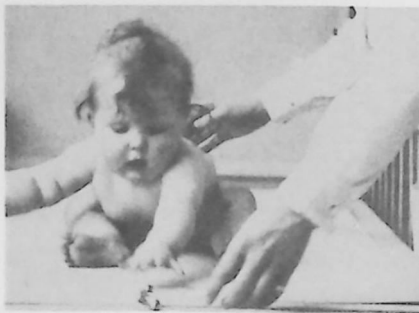
Seconds



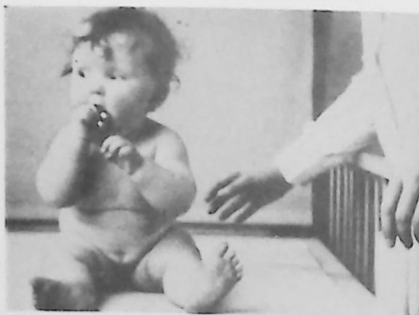
- A 0.25 ¶ Sits unsupported, head erect and turned fully left, trunk erect, upper trunk rotated to left; right arm flexed, forearm directed laterally and forward at chest level, hand closed; left arm extended laterally at chest level, hand open; legs extended in adduction and outward rotation on platform. Regards surroundings. 0.5 Flexes left leg slightly in outward rotation on platform. 1.0 Lifts left arm to shoulder level. 1.5 Leans slightly forward. 1.75 Directs left arm laterally and downward. 2.0 Directs left arm laterally and forward. 2.25 Directs right forearm medially and downward. 2.75 Lifts laterally extended left arm to chest level. 3.5 Semi-extends right arm downward and medially.



- B 4.5 Turns head fully right, straightening upper trunk.



- C . . 5.75 (Infant is turned to face camera. Lure is on platform before infant.)
. . 5.75 Sits unsupported, leaning far forward; head erect in midposition; right arm extended forward and laterally 3 inches above platform; left arm extended forward and medially, open hand 2 inches above platform; legs flexed in outward rotation on platform. Regards lure. 6.5 (Lure is moved nearer.) 7.0 Flexes left arm, forearm directed forward and medially, hand on platform. 7.75 Extends right arm forward, open hand on platform. 8.25 Shifts right arm medially; fingers lure. 8.75 (Lure is moved nearer.) 9.25 Extends left arm forward and medially, hand on platform. 9.5 Fingers lure with left hand. 11.0 Grasps lure with right hand. 11.5 Erects trunk; opens left hand. 11.75 Flexes arms, lifting hands to mouth. Regards surroundings.



- D 12.5 Turns head half right; semi-extends legs in outward rotation on platform; lowers left forearm, directing it medially and headward at chest level. (13.75 sec.)

Seconds



E 10.75 Flexes left arm, lifting it to ear level, forearm directed forward and headward; leans slightly to left. 11.5 Extends left arm laterally at shoulder level; trunk returns to midplane.



F 12.25 Lowers left hand to platform, arm extended laterally and forward; leans to left. 13.0 Flexes left arm, lifting it 3 inches, forearm directed laterally and forward; trunk returns to midplane. 14.0 Turns head fully left; lowers left hand to platform, arm extended laterally and forward.



G 15.0 Tilts head backward and regards Examiner. 16.25 Turns head to midposition, tilting it slightly forward; regards right hand on platform. 17.25 Lifts left arm 1 inch, arm semi-extended forward. 17.5 Closes right hand.



H 17.75 Lowers left hand to platform, arm extended forward and medially; leans far forward, swaying to right. 18.25 Falls toward platform (18.5 sec.)

SITTING

18.5 seconds

8 phases

Normative Series

Age: 32 weeks

Child: B36

Seconds

A 0.25 ¶ Sits unsupported, head erect in midposition, trunk erect, shoulders turned slightly to left; right arm semi-extended forward and downward, open hand touching platform; left arm flexed, forearm directed forward at chest level, hand open; both legs flexed and outwardly rotated on platform, right leg acutely flexed. Regards surroundings. 1.25 Leans very slightly forward and to right, shoulders in line with trunk. 1.5 Opens right hand. 1.75 Turns head half right. 2.25 Semi-extends left arm forward and laterally at chest level. 2.5 Turns head half left; flexes left leg acutely in outward rotation on platform.

B 2.75 Regards Examiner's protecting hand at left; extends left arm forward and downward, hand on platform; leans very slightly to left; closes right hand. 4.25 Shifts right arm somewhat medially, hand on platform.

C 4.75 Tilts head slightly forward, turning it to midposition, and leans forward to an angle of 45 degrees; flexes right arm, lifting it 2 inches, forearm directed forward and medially. Regards hands. 5.0 Extends right arm forward, downward, and medially, open hand on platform; trunk returns to midplane. 5.5 Leans slightly to left.

D 6.25 Leans slightly to right. 6.75 Turns head half left; trunk returns to midplane. 8.75 Erects head, turning it half right; regards surroundings. 10.0 Turns head to midposition.



SITTING

18.25 seconds

8 phases

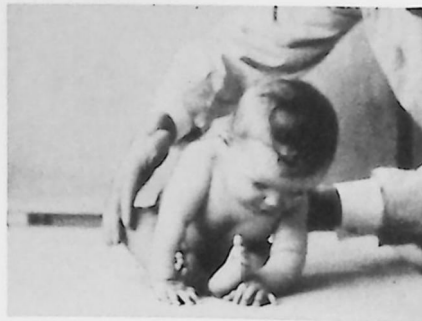
Seconds



- E 11.0 Slides left arm 1 inch laterally, opening hand; leans far forward.
11.75 Flexes right arm, lifting it 1 inch, forearm directed forward and medially.



- F 12.0 Extends right arm forward, downward, and medially, hand open on platform; draws back left arm 1 inch; erects trunk to angle of 45 degrees. 13.25 Turns head to midposition. 13.5 Trunk swings toward right. 14.25 Trunk begins to fall toward left.



- G 14.5 As trunk falls toward left, left arm flexes, forearm directed forward and medially on platform. 14.75 (Examiner catches infant and restores him to upright position.) 15.5 Erects head, turning it half left.



- H 15.75 Regards Examiner. 16.75 Regards surroundings. 17.0 Turns head to midposition. 17.5 Tilts head slightly forward. (18.0 sec.)

SITTING

18.25 seconds

8 phases

Normative Series

Age: 28 weeks

Child: G48

Seconds

- A 0.75 ¶ Examiner pulls infant by upper arms from supine to sitting position (forward through arc of 90 degrees). 0.75 As Examiner pulls, infant holds arms flexed; trunk is lifted to angle of 45 degrees, buttocks on platform; legs are flexed 4 inches above platform, right leg acutely flexed; head is in midposition, in line with trunk (head compensation). Regards surroundings. (Legs are in outward rotation, unless otherwise stated.) 1.25 Trunk reaches angle of 75 degrees. Turns head half left.

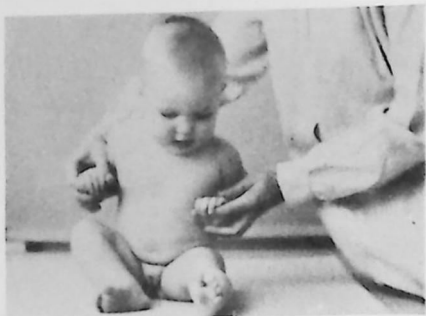
- B 2.0 Trunk reaches angle of 90 degrees, bringing flexed legs into contact with platform. Sits, supported by upper arms; tilts head slightly forward; back rounds uniformly. 2.5 Leans slightly forward, back rounding in lumbar region. 3.25 Turns head to midposition; extends right arm forward and downward. 4.0 Semi-extends right leg on platform.

- C 4.5 Leans forward to angle of 45 degrees. 5.0 Extends left arm forward 1 inch above platform. 5.75 (Examiner releases infant's flexed right arm.) Turns head half left; lowers left hand to platform, arm extended forward. 6.75 Lifts left arm 1 inch in extension. 7.25 Lowers left hand to platform, arm extended forward. 7.75 Turns head half right. 8.75 (Examiner releases infant's left arm.) 9.0 Turns head to midposition. 9.5 Lifts left arm 3 inches in extension.

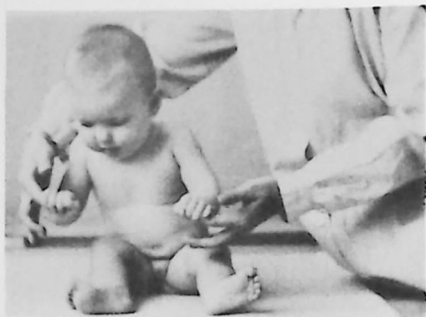
- D ..10.25 (Infant is turned to face camera.) ..10.25 Sits, supported at sides of chest; leans forward to angle of 45 degrees, head turned half left and tilted slightly forward; right arm flexed and lifted 1 inch, forearm directed forward and downward; left arm extended forward and somewhat medially, hand closed on platform; right leg flexed; left leg semi-extended on platform. Regards surroundings. 10.75 (Examiner releases support.) Extends right arm forward and downward, hand on platform, and slides left arm forward 1 inch.



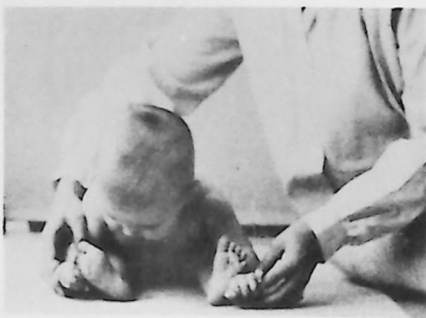
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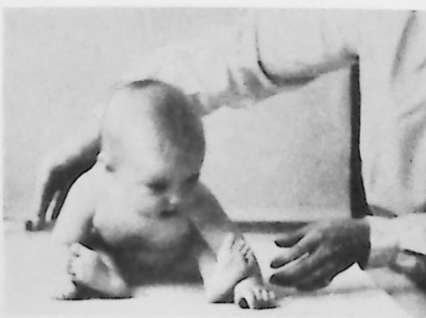
- E ..16.25 (Infant is turned to face camera.) ..16.25 Sits, supported by hands; trunk erect, leaning slightly to left; head tilted slightly forward in midposition; arms flexed, right forearm directed forward, left forearm directed forward and medially; legs on platform, right leg flexed, left leg extended without rotation. Regards surroundings. 17.5 Leans slightly forward in midplane, right arm semi-extending forward and laterally, left arm semi-extending forward and medially; semi-extends right leg on platform; rolls left leg outward. 18.0 Erects trunk. 18.25 Turns head half right, tilting it slightly forward. 18.75 Semi-extends right arm forward, laterally, and downward. Regards right hand.



- F 19.75 Leans slightly forward and to right, semi-extending left arm forward. 20.75 Turns head to midposition; flexes right arm, directing forearm forward, and directs semi-extended left arm forward and downward; rolls left leg inward. 21.25 Straightens trunk, still leaning forward. 22.0 (Examiner lowers infant's hands to platform.) Extends right arm forward and downward. 22.75 Turns head half right; extends left arm downward, hand on platform beside left foot.



- G 23.5 Leans far forward and slightly to right; rolls left leg outward. Regards platform. 24.25 Extends right arm downward, hand on platform beside right foot; tilts head far forward in midposition. 25.5 (Examiner releases infant's right arm.) Flexes right arm, forearm directed forward on platform, hand closed. 26.75 (Examiner releases infant's left hand.) Left hand remains closed.



- H 27.75 Extends right arm, hand on platform, straightening trunk and erecting it to angle of 45 degrees; turns head half left, erecting it slightly. Opens left hand. Regards surroundings. (28.25 sec.)

SITTING

28.25 seconds

8 phases

Normative Series

Age: 24 weeks

Child: G47

Seconds

A 2.0 ¶ Examiner pulls infant by forearms and hands from supine to sitting position (forward through arc of 90 degrees.) 2.0 As Examiner pulls, infant's arms are extended forward and headward; trunk is lifted to an angle of 75 degrees, buttocks on platform; legs are flexed and outwardly rotated, right leg lifted 3 inches, left leg 1 inch; head is in midposition, in line with trunk (head compensation). Regards surroundings. (Legs are in outward rotation, unless otherwise stated.) 2.25 Semi-extends legs on platform. Regards Examiner.

B 2.5 Trunk reaches angle of 85 degrees. Pulls head erect and flexes arms, forearms directed forward and headward; back rounds slightly and uniformly. Regards surroundings. 2.75 Tilts head slightly forward. 3.25 Trunk reaches angle of 90 degrees. Sits, supported by forearms and hands. 5.5 Leans slightly forward; arms flexed, forearms directed forward; back rounds in lumbar region. 7.5 Erects trunk, back rounded.

C 7.75 Leans backward slightly, right arm extending forward; lifts left leg 1 inch in semi-extension. 8.0 Lowers left leg in semi-extension to platform. 8.5 Extends left arm forward. 10.5 Erects trunk, back rounded in lumbar region, right arm semi-extending forward and downward, left arm flexing, forearm directed forward. 11.25 Pulls head erect, turning it half left. 11.5 Leans backward slightly, arms extending forward. 12.75 Turns head to midposition; regards Examiner. 13.0 Leans slightly to left; flexes right leg 1 inch above platform.

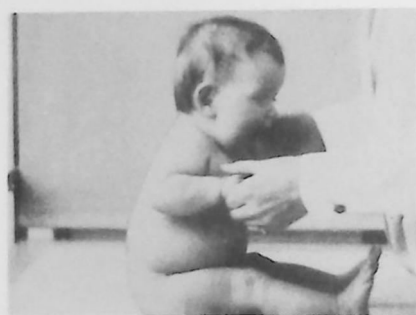
D 14.0 Erects trunk, back rounded in lumbar region, semi-extending right leg on platform; turns head half left. Regards surroundings. 14.75 Leans slightly forward, arms flexing, right forearm directed forward, left forearm directed forward and headward; flexes right leg on platform. 15.75 Erects trunk, back rounded in lumbar region; directs left forearm forward, arm flexed.



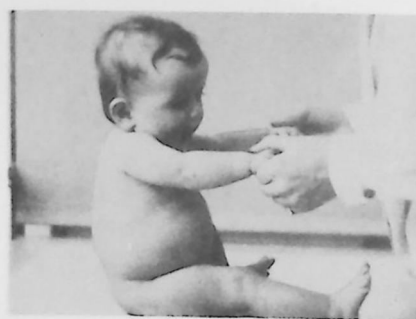
Seconds



- E 18.0 Tilts head backward slightly and smiles broadly; flexes right leg obtusely on platform. 18.75 Tilts head slightly forward in half-right position and regards surroundings. 19.5 Turns head to mid-right leg on platform.



- F 20.25 Stops smiling; leans slightly forward, arms flexing, forearms directed forward. 20.75 Erects trunk, back rounded in lumbar region.



- G 21.25 Tilts head toward right shoulder; flexes left leg acutely on platform; leans backward slightly, arms extending forward. 22.25 Erects trunk, back rounded in lumbar region. 22.5 Tilts head slightly forward in midposition; extends left leg on platform. 23.0 Leans backward slightly.



- H 24.25 Erects trunk, back rounded in lumbar region, arms flexing, forearms directed forward. 25.0 Leans forward slightly. 26.0 Leans backward slightly. 26.5 Extends arms forward; flexes right leg obtusely on platform. 27.5 Semi-extends right leg on platform; erects trunk, back rounded in lumbar region, leaning slightly toward left. 28.25 Flexes right leg obtusely on platform. (29.5 sec.)

BEHAVIOR SITUATION
SITTING

29.5 seconds


8 phases

Normative Series


Age: 20 weeks

Child: G48


Seconds




A 1.0 ¶ Examiner pulls infant by forearms and hands from supine to sitting position (forward through arc of 90 degrees). 1.0 As Examiner pulls, infant's arms are extended forward and headward; trunk is lifted to an angle of 60 degrees, buttocks rotated slightly to left on platform; legs are in acute flexion and outward rotation, feet lifted 3 inches; head is in half left position, held in line with trunk (head compensation). Regards surroundings. (Legs, when flexed are in outward rotation, and when extended are without rotation, unless otherwise stated.) 1.25 Trunk reaches angle of 75 degrees. Leans slightly to left; back rounds slightly. 1.75 Feet contact platform, right leg obtusely flexed, left leg acutely flexed.



B 2.0 Trunk reaches angle of 90 degrees. Sits, supported by forearms and hands; arms flexed, right forearm directed forward and headward, left forearm forward and medially; head is erect and slightly forward in midrotation; back rounds in lumbar region. Regards Examiner. 3.25 Directs right forearm forward and medially; flexes left leg obtusely on platform. 4.0 Tilts head backward slightly; semi-extends right arm, forearms directed forward and medially. 4.75 Regards surroundings. 5.0 Tilts head slightly forward. 5.5 Turns head half left; flexes right arm, forearm directed forward and medially. 6.25 Directs left forearm medially and headward; leans forward slightly. 7.0 Mouths left hand.



C 9.75 (Infant is placed in center of crib.) Sits, supported by hands, right arm extended forward and downward, left arm flexed, forearm directed forward and headward; legs extended on platform; trunk erect in forward position and turned half right, back rounded in lumbar region; head turned half right, erect in forward position. 10.5 Directs left forearm forward and medially. 11.25 Tilts head backward and toward left shoulder, head still turned half right, and regards Examiner. 11.5 Leans slightly toward the left, left arm extending forward. 11.75 Smiles. 12.25 Tilts head slightly forward in half right position and regards surroundings.



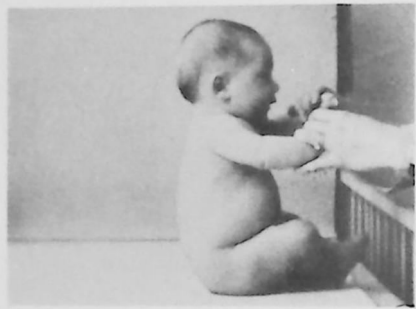
D 12.75 Stops smiling; straightens trunk and leans slightly forward, arms flexing, forearms directed forward and headward. 15.0 Erects trunk, back rounded in lumbar region. 15.75 Extends both arms forward; flexes right leg acutely on platform. 16.25 Extends right leg on platform. 16.5 Leans backward and slightly to left. 16.75 Tilts head toward left shoulder, head erect in half right position. 17.75 Regards Examiner.

BEHAVIOR SITUATION SITTING 12.75 seconds 4 phases

Seconds



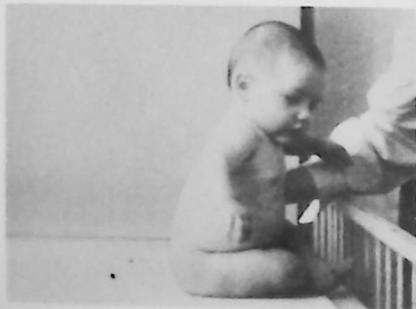
A 2.0 Examiner pulls infant by forearms and hands from supine to sitting position (forward through arc of 90 degrees). 2.0 As Examiner pulls, infant's arms are extended forward and headward; trunk is lifted to an angle of 60 degrees, buttocks on platform; both legs are acutely flexed, right leg inwardly rotated, foot on platform, left leg outwardly rotated, foot on right ankle; head is in half left position, held almost in line with trunk (slight head lag). Regards surroundings. 2.5 Trunk reaches angle of 75 degrees, back rounding slightly. 3.0 Turns head to midposition.



B 3.5 Trunk reaches angle of 90 degrees. Sits, supported by forearms and hands, arms extending forward and medially; pulls head erect, back rounding in lumbar region; rolls right leg outward. 4.25 Head droops very slightly forward. 4.75 (Examiner releases infant's left hand.) Semi-extends left arm, directing it downward and medially, hand open. 5.5 Leans slightly forward. 5.75 Directs left arm forward and medially at chest level. 6.25 (Examiner supports infant at left side of chest, releasing right hand.) Extends right arm laterally at shoulder level, hand open.



C 7.25 Pulls head erect in half right position and erects upper trunk. Regards Examiner. 8.25 Turns head to midposition and leans slightly forward; regards surroundings; lowers laterally extended right arm to chest level. 8.75 Directs right arm downward at side of trunk. 9.0 Lifts laterally extended right arm to chest level. 9.5 Turns head half left in forward position; directs right arm forward and downward toward right knee. 10.5 Lifts laterally extended right arm to chest level.



D 11.25 Turns head half right in forward position and regards platform and right. 11.75 Closes left hand. 12.0 Tilts head slightly forward. 12.5 Directs right arm downward at side of trunk. (12.75 sec.)

Seconds



- A 3.25 ¶ Examiner pulls infant by forearms and hands from supine to sitting position (forward through arc of 90 degrees). 3.25 As Examiner pulls, infant's arms are extended forward and headward; trunk is lifted to an angle of 15 degrees, buttocks on platform; legs are acutely flexed and outwardly rotated, feet lifted 2 inches; head is in midposition, occiput 3 inches above platform (moderate head lag). Regards surroundings. (Legs are outwardly rotated, unless otherwise stated.) 4.0 Trunk reaches angle of 45 degrees, bringing feet into contact with platform; buttocks slide forward on platform. Tenses neck (slight head lag).



- B 5.5 Trunk reaches angle of 90 degrees. Sits, back rounding uniformly; pulls head erect, turning it fully right. 6.25 Leans slightly forward, arms flexing, forearms directed forward and headward; back rounds in lumbar region; head and trunk bob. 8.0 Turns head half right. . .8.25 (Examiner's face is in line with infant's eyes.) Sits, supported at sides of chest; head bobbingly erect in midposition, trunk erect, back uniformly rounded; arms flexed at chest level, forearms directed forward and medially, right hand open, left hand closed; legs on platform, right leg semi-extended, left leg obtusely flexed. Regards Examiner. 10.25 Lowers forearms slightly (to Examiner's arms). 10.5 Head droops forward. 12.25 Sits, supported at left side of chest. 12.75 Pulls head erect in forward position; directs right forearm forward and downward to right knee. 13.5 Head bobs.



- C 15.0 Smiles broadly at Examiner; closes right hand. 15.75 Flexes right leg obtusely on platform. 17.25 Head jerks slightly forward, bobbing. Directs right forearm forward, downward, and medially at abdominal level. 18.5 Tilts head toward left shoulder. 19.5 Semi-extends right arm forward and downward, placing hand on right knee. 21.0 Slides right hand forward, hand on right lower leg. 23.75 Extends right arm downward at side of trunk. 24.5 Regards surroundings; stops smiling. 25.5 Opens right hand; leans slightly forward. Regards Examiner. 26.25 Leans slightly farther forward, trunk bobbing. 26.75 Dorsum of right fingers rests on platform at side of trunk. Semi-extends right leg on platform.



- D 27.25 Leans forward to an angle of 60 degrees, back rounding in lumbar region. 28.0 Leans forward to an angle of 45 degrees. 29.5 Erects upper trunk; flexes right arm, directing forearm forward and medially at chest level; lifts left forearm to chest level, forearm directed forward and medially; flexes right leg obtusely on platform (29.75 sec.)

Seconds



- A 1.75 Examiner pulls infant by forearms and hands from supine to sitting position (forward through arc of 90 degrees). 1.75 As Examiner pulls, infant's arms are directed forward and headward in passive extension; trunk is lifted to an angle of 45 degrees, buttocks on platform; legs are in acute flexion and outward rotation, feet lifted 1 inch; head is in half left position, occiput 4 inches above platform, neck passively extended (marked head lag). Regards surroundings. (Legs are outwardly rotated, unless otherwise stated.) 2.5 Trunk reaches angle of 90 degrees, bringing feet into contact with platform, legs in obtuse flexion. Sits, supported by forearms and hands, arms flexed, forearms directed forward and headward; turns head fully erect, tensing neck (moderate head lag); back rounds uniformly. 3.0 Tenses neck (slight head lag).



- B 3.75 Turns head half left, pulling it erect. (Examiner releases infant's left hand.) 4.25 Leans slightly forward. 4.75 Turns head to midposition; erects trunk to angle of 90 degrees, back still rounded. 5.5 Tilts head toward right shoulder. 5.75 (Examiner's face is in line with infant's eyes. Infant is supported by both hands.)



- C 6.0 Rocks backward slightly, arms semi-extending passively; flexes left leg acutely, lifting foot 1 inch; head droops forward slightly. Regards Examiner. 6.5 Rocks forward to angle of 90 degrees, arms flexing; lowers left leg to platform in obtuse flexion; regards surroundings. 7.0 Leans forward slightly. 8.0 Trunk wobbles slightly back and forth.



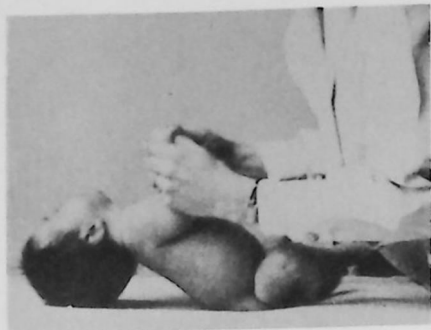
- D 8.5 Erects head and regards Examiner. 9.25 Rolls flexed right leg inward. 10.75 Erects trunk to angle of 90 degrees, back still rounded. 11.5 Head droops forward slightly, tilted toward right shoulder. 12.0 Rocks forward slightly. (12.5 sec.)

SITTING

16.5 seconds

4 phases

Seconds



A 1.25 ¶ Examiner slowly pulls infant by forearms and hands from supine to sitting position (forward through arc of 90 degrees). 1.25 As Examiner begins to pull, infant's arms are in flexion, upper arms close to sides of chest, forearms lifted vertically; trunk is lifted to an angle of 30 degrees, buttocks on platform; both legs are in acute flexion and outward rotation, right foot lifted 1 inch, left foot on platform; head is in midposition and neck extends passively, occiput touching platform (marked head leg). Regards surroundings. (Legs are outwardly rotated, unless otherwise stated.) 1.5 Turns head half left. 2.0 Extends right leg on platform, buttocks slide forward slightly. 2.25 As occiput clears platform, turns head fully right.



B 2.5 Trunk reaches angle of 45 degrees. Arms extend passively, yielding to pull. Flexes right leg obtusely on platform. 2.75 Extends right leg on platform and lifts left leg 1 inch in obtuse flexion. 3.0 Trunk reaches angle of 60 degrees. Tenses neck, head lagging moderately. 3.5 Trunk reaches angle of 75 degrees, back rounds uniformly. Turns head half right, head lagging slightly; extends left leg on platform. 4.0 Turns head to midposition, regards Examiner. 4.5 Buttocks slide forward slightly, both legs flexing passively on platform. 5.0 Trunk reaches angle of 90 degrees. Sits, supported by forearm and hands, arms flexed, forearms directed forward and slightly headward. 5.5 Head droops forward in half right position. Regards surroundings. 6.75 Turns head to midposition. (Examiner releases left forearm.)



C 7.5 Sits, supported at left side of chest and back; head forward and partly erect in midposition; back uniformly rounded; both arms in flexion, forearms directed forward and somewhat medially at chest level, hands closed; legs flexed on platform; right leg in internal rotation. 8.25 Head droops forward. 9.0 Lowers right forearm to right knee; lifts left forearm to shoulder level. 10.0 (Examiner's face is in line with infant's eyes.) Lifts right forearm to chest level; rolls flexed right leg outward on platform. 10.5 Regards Examiner. 10.75 Erects head slightly in forward position. 11.25 Lowers left forearm to chest level, right forearm to knee. 12.0 Semi-extends right arm, forearm directed downward and slightly forward.

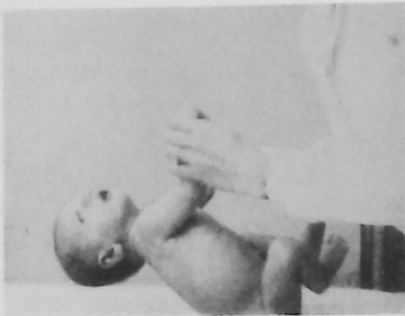


D 14.0 Head droops forward. Flexes right arm, lifting hand to chest level, forearm directed forward and somewhat medially. 14.75 Erects head and trunk slightly, head in forward position, back rounded uniformly; lifts right hand to ear level, forearm directed headward and slightly forward; moves left forearm medially. 15.5 Head and trunk droop forward. Semi-extends right arm, lowering hand to chest level, forearm directed forward and somewhat medially. 16.25 Flexes right arm, forearm directed forward and somewhat medially at chest level. (16.5 sec.)

Seconds



A 3.25 Examiner slowly pulls infant by forearms and hands from supine to sitting position (forward through arc of 90 degrees). 3.25 As Examiner begins to pull, infant's arms are in flexion, upper arms close to sides of chest, forearms lifted vertically; trunk is lifted to an angle of 30 degrees, buttocks on platform; both legs are in acute flexion and outward rotation, right leg lifted 1 inch, left leg lifted 2 inches; head is in midposition and neck extends passively, occiput touching platform (marked head lag). Regards surroundings. (Legs are outwardly rotated, unless otherwise stated.) 3.75 As occiput clears platform, turns head to half right position.



B 4.0 Trunk reaches angle of 45 degrees; arms extend passively, yielding to the pull. Lifts right foot 2 inches above platform, leg acutely flexed. 4.25 Lifts left foot 3 inches above platform, leg flexed to a right angle. 4.5 Trunk reaches angle of 60 degrees, bringing right foot into contact with platform, leg acutely flexed. Flexes left leg acutely, foot 2 inches above platform. 5.0 Trunk reaches angle of 75 degrees; back rounds uniformly. Tenses neck, head lagging moderately; flexes right leg obtusely on platform. 5.5 Flexes left leg obtusely on platform. 5.75 Trunk reaches angle of 90 degrees.



C 6.0 Sits, supported by forearms and hands, arms flexed, forearms directed forward and slightly headward; head droops forward in midposition. 6.5 (Examiner's face is in line with infant's eyes.) 7.75 Semi-extends both legs on platform. 10.0 (Examiner releases left forearm.) 11.25 Sits, supported at left side of chest and back; both arms in flexion, forearms directed forward at chest level, hands open; both legs in extension on platform; leans slightly forward, back uniformly rounded. 12.0 Turns head slightly to left. 12.5 Turns head to midposition. 13.5 Closes left hand.



D 14.0 Examiner lessens support slightly; infant leans farther forward (16.0 sec.)

BEHAVIOR SITUATION
STAIR CLIMBING

54.75 seconds

8 phases

An
Atlas of
Infant Behavior

Page
Normative Score
Age: 56 weeks
Child: B34

Seconds



- E 36.75 Replaces right hand on fourth tread; lifts right heel, straining forward 37.0 (Lure is moved farther back on fifth tread.) 37.25 Stops straining; flexes right leg, lifting foot 3 inches above second tread, hips swinging to left; weight on hands and left foot. 38.0 Extends right leg, placing right toes on second tread, heel raised. 38.5 Turns head half left, swinging hips to right. 39.75 Turns head to midposition; lifts left arm in flexion, directing forearm forward at shoulder level; weight on right hand, right toes, and left foot. 40.0 Places left hand on fifth tread, arm semi-extended forward. 40.5 Lifts left heel; straightens hips; strains forward. 41.25 Flexes right leg, lifting foot 2 inches above third tread; weight on hands and left toes.



- F 41.75 Lowers right foot to third tread, leg flexed and abducted; swings hips to left; leans forward. 42.25 Lifts right arm to shoulder level and semi-extends it forward; weight on left hand, right foot, and left toes. 42.5 Places right hand on fifth tread. 43.25 Extends right leg, foot fixed on third tread; straightens hips and erects trunk slightly, arms semi-extending forward and downward, hands fixed on fifth tread; flexes left leg, lifting foot 3 inches above third tread; weight on hands and right foot. 43.5 Places left foot on third tread, leg extended and slightly abducted; stops straining; lifts left hand 1 inch, extending arm forward; weight on right hand and both feet.



- G 44.0 Lifts right leg 1 inch in semi-extension, moving foot medially and forward; lowers left hand to fifth tread; weight on right hand and left foot. 44.5 Replaces right foot on third tread, leg extended. 44.75 (Lure is moved farther back on fifth tread.) Lifts right leg 1 inch in semi-extension. 45.25 Replaces right foot on third tread, leg extended. 45.5 Shifts right hand somewhat medially on fifth tread, arm semi-extended. 46.0 Turns head half left, swinging hips to right; regards surroundings. 46.75 Turns head half right, straightening hips. 47.5 Turns head to midposition; regards lure. 49.0 Lifts left hand 2 inches; weight on right hand and both feet. 49.25 Replaces left hand on fifth tread.



- H 49.5 Lifts left hand 2 inches, directing arm forward; flexes and abducts right leg, lifting foot 3 inches above fourth tread; swings hips to left; leans forward; weight on right hand and left foot. 49.75 Replaces left hand on fifth tread. 50.25 Places right foot on fourth tread, leg flexed and abducted; turns head and shoulders to right; regards surroundings. 51.75 Turns head half right; straightens shoulders and hips; slides flexed right leg medially, lower leg resting on fourth tread. 53.25 Flexes left arm, forearm directed forward on fifth tread; tilts head forward, turning it to left. 53.75 Flexes right arm and swings it medially; turns trunk to left; regards fourth tread. 54.5 Lowers buttocks to fourth tread, pivoting 90 degrees counter-clockwise, and sits. (54.75 sec.)

BEHAVIOR SITUATION
STAIR CLIMBING

54.75 seconds
 8 phases

Normative Series
 Age: 56 weeks
 Child: B34

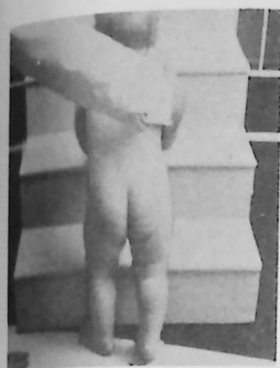
Seconds

- A 1.75 ¶ Infant walks forward three steps with assistance. 1.75 Stands in position before staircase, lure on fourth tread. Head is erect in midposition, trunk almost erect; arms semi-extended forward and downward, open hands on second tread; stands with right toes and left foot on floor, legs extended; weight on hands and left foot. Regards lure. 2.0 (Cruises to right side of staircase; ..7.5 holding crib rail, cruises across Dome to mother; ..10.5 replaced in position, cruises to left side of staircase and reaches directly for lure; secures lure in right hand).

- B ..28.75 (Infant is replaced in position before staircase, lure on fourth tread.) Head is erect in midposition, trunk leaning slightly forward, hips deviated to left; right arm semi-extended forward and downward; hand on second tread, left arm semi-extended forward, hand on third tread; right leg semi-extended in abduction, foot on first tread; left leg extended, foot on floor; weight on hands and left foot. Regards lure. 29.0 Flexes right leg, moving foot medially on first tread; hips swing to right. 29.5 Supporting weight on left hand and both feet, lifts right arm in flexion, directing forearm forward at shoulder level; lifts left heel; straightens hips. 30.0 Places right hand on third tread, arm semi-extended forward.

- C 30.75 Lifts left leg in flexion, bringing foot over second tread; hips swing to right; semi-extends right leg, foot fixed on first tread; arms semi-extend forward and downward to third tread; weight on hands and right foot. 32.0 Places left foot on second tread, leg flexed and adducted; straightens hips. 32.5 Lifts left arm in flexion, directing forearm forward at shoulder level; weight on right hand and both feet. 33.0 (Lure is moved to fifth tread.) Places left hand on fourth tread, arm semi-extending forward; lifts right heel. 34.0 Flexes right leg in abduction, lifting foot 3 inches above second tread; leans forward, hips swinging to left; weight on hands and left foot.

- D 34.5 Places right foot on second tread, leg extended and adducted. 35.0 Lifts right arm in flexion, directing forearm forward at shoulder level; weight on left hand and both feet. 35.5 Places right hand on fourth tread and erects trunk slightly, arms semi-extending forward and downward; lifts left heel. 36.0 Lifts left leg in flexion 3 inches above second tread, swinging hips to right; weight on hands and right leg. 36.5 Replaces right foot on second tread, leg extended and adducted, hips straight; lifts left hand 1 inch above fourth tread; weight on right hand and both feet.



BEHAVIOR SITUATION
STAIR CLIMBING

16.25 seconds

8 phases

Normative
Age: 48 w
Child: B3

Seconds



- E 7.25 Supporting weight on both hands, right foot, and left toes, extending both legs and strains forward, straightening shoulders and hips and erecting trunk farther; erects head. Regards lure. 8.25 Turns head half left, holding it in line with trunk; partially flexes both legs, feet fixed on first tread, trunk leaning slightly forward and to left; swings hips toward right. Regards surroundings. 9.0 Supports weight on right hand, right foot, and left toes, withdrawing left hand from third tread, semi-extending arm downward.



- F 9.25 Places left hand on second tread, arm semi-extended forward and downward; supporting weight on left hand, right foot, and left toes, withdrawing right hand from third tread, semi-extending arm downward. 9.5 Places right hand on second tread, arm semi-extended forward and downward; flexes left leg, foot fixed on first tread, lowering trunk slightly; weight on hands and feet. 9.75 Trunk sways slightly to left. 10.75 Flexes legs further, lowering trunk slightly. 11.25 Slides left hand laterally on second tread. 12.25 Shifting weight to hands and right foot, lifts left leg 1 inch in flexion, erecting trunk slightly. 12.5 Extends left leg downward and backward from first tread.



- G 12.75 Lowers left foot to floor, leg extended, heel raised, lowering trunk and straightening shoulders and hips slightly.



- H 14.75 Lifts left leg in flexion, bringing foot 3 inches above first tread, hips swinging slightly to right. 15.5 Turns head to midline, holding it in line with trunk. (16.25 sec.)

BEHAVIOR SITUATION
STAIR CLIMBING

16.25 seconds


8 phases

Normative Series


Age: 48 weeks

Child: B34


Seconds




A 0.5 ¶ Infant is placed in position before staircase, lure on third tread. 0.5 Head is erect and turned half right; trunk leans slightly forward; arms semi-extended forward and downward, open hands on second tread; left leg extended, heel lifted from floor, weight on hands and left toes; lifts right leg in flexion, bringing foot 3 inches above first tread; hips swing slightly to left. Regards lure.



B 1.25 Lowers right foot to first tread, leg flexed; supporting weight on left hand, right foot, and left toes, begins to lift right hand. 1.75 Lifts right hand to ear level, arm semi-extended forward; strains forward. 2.0 (Lure is moved farther back on third tread.) 2.75 Stops straining; withdraws right hand, flexing arm, forearm directed forward at shoulder level; turns head to midposition; straightens hips.



C 3.75 Semi-extends right arm forward, placing hand on third tread; supports weight on hands and right foot, swinging hips slightly to right. 4.25 (Lure is moved to fourth tread.) Regards stairs.



D 5.25 Lifts left leg in flexion, bringing foot 4 inches above first tread, right leg semi-extending, foot fixed on first tread; trunk leans farther forward, upper trunk swinging to left, head held in line with trunk. 6.75 Semi-extends left leg in abduction, lowering toes near edge of first tread; supporting weight on right hand, right foot, and left toes, lifts left hand to shoulder height, arm semi-extended forward; erects trunk slightly. 7.0 Places left hand on third tread, arm semi-extended forward.

BEHAVIOR SITUATION
STAIR CLIMBING

25.75 seconds
8 phases

Seconds



- E 13.25 Lifts left heel. 13.75 Holds head in line with trunk and regards hands. 14.25 Tilts head slightly forward and turns it fully left, swinging hips slightly to right; regards surroundings. 15.75 Erects head and turns it to midposition; regards lure; lowers left heel to floor. 16.0 Holds head erect, turned half left, hips deviated slightly to right; arms semi-extended forward and downward, open hands on second tread; right leg extended, heel on floor; left leg semi-extended in advance of right, left heel lifted; regards Examiner. 16.5 Lowers left heel; straightens hips. 16.75 Swings hips slightly to right. 17.25 Straightens hips. 18.25 (Lure is agitated.) Turns head to midposition; regards lure.



- F 19.5 Supporting weight on right hand, right toes, and left foot, strains forward, lifting right heel; lifts left arm 2 inches, extending it forward. 20.25 Lowers left hand to second tread; holds head in line with trunk and regards hands.



- G 20.75 Supporting weight on left foot and both hands, lifts right leg 1 inch in flexion and moves it forward.




- H 21.25 Lowers right leg in semi-extension, heel raised, foot on floor in line with left; weight on both hands, right toes, and left foot; stops straining forward. 22.0 Lifts right arm 2 inches in flexion, forearm directed forward; weight on left hand, right toes, and left foot. 22.75 Lowers right hand to second tread, arms semi-extended forward and downward; weight returns to both hands, right toes, and left foot. 23.0 Erects head and regards lure; strains forward, lifting left heel. 24.75 Stops straining forward, lowering both heels to floor, and swings hips slightly to left. 25.25 Straightens hips (25.75 sec.)

BEHAVIOR SITUATION
STAIR CLIMBING


25.75 seconds
8 phases

Normative Series
Age: 40 weeks
Child: B34


Seconds




A 0.25 ¶ Infant is placed before staircase, lure on third tread. Head is erect in midposition; arms semi-extended forward and downward, open hands on second tread; stands on toes, legs semi-extended in moderate abduction, feet in line; trunk leans slightly forward, weight on hands and toes. Regards lure. 1.0 Turns head half right, swinging hips slightly to right; regards surroundings. 1.75 (Lure is agitated.) Turns head to midposition and regards lure; lowers right heel to floor.



B 2.0 Flexes left leg and slides it forward in advance of right, hips swinging slightly to left; weight on right foot and both hands. 2.5 Semi-extends right leg, lowering heel to floor, weight on hands and feet. 2.75 Straightens hips. 3.0 (Lure is quiet.) Holds head in line with trunk.



C 3.5 Strains forward, rising to toes, left arm flexing, hand fixed on tread. 4.0 Tilts head slightly forward; regards hands. 5.25 Left arm semi-extends, hand fixed on tread. 6.0 Stops straining forward; erects head and turns it half left, hips swinging slightly to right; weight on right toes and both hands; regards Examiner. 7.0 (Lure is agitated.) Regards lure; lowers right heel to floor.



D 7.5 Turns head to midposition, straightening hips; lowers left heel to floor; weight on hands and feet. 8.25 Flexes left leg, rising to left toes; weight on right foot and both hands; turns head half left, swinging hips slightly to right; regards Examiner. 9.25 Semi-extends left leg, toes fixed on floor; turns head to midposition, straightening hips; regards lure. 10.5 (Lure is quiet.) 10.75 Strains forward, rising to toes, weight on hands and toes. 12.75 Stops straining forward; lowers heels to floor, right leg extended, left leg flexed; weight on right foot and both hands.

Seconds



- E 4.75 Extends left arm downward; leans farther forward, trunk at right angles to legs. 5.0 Directs right arm downward and medially, fingers touching platform. 5.25 Directs left arm downward and medially, fingers touching lure. 5.75 Grasps lure with left hand. 6.5 Closes left hand; begins to flex both legs, lowering trunk farther.



- F 7.0 Flexes both legs acutely in outward rotation, assuming the squatting position, trunk leaning forward; left arm semi-extends downward and medially, hand on platform. 7.25 Flexes left arm, directing forearm forward and medially on platform; semi-extends right arm downward and medially, hand on platform; weight on right hand, left forearm, and both feet.



- G 7.5 Pushes right foot against platform and semi-extends right leg, swinging hips to left.



- H 7.75 Lowers buttocks to platform and sits leaning far forward, right leg semi-extended in slight outward rotation on platform, left leg flexed acutely on platform; erects head slightly. (Infant has pivoted 45 degrees clockwise.) 10.5 Begins to erect trunk. 10.75 Erects head; regards surroundings; flexes right arm, bringing hand holding lure to mouth. 11.0 Sits fully erect. 11.5 Lifts flexed left arm, bringing hand to mouth. 11.75 Grasps lure at mouth with left hand; extends right leg in slight outward rotation on platform. (Without assistance, infant has risen from the quadrupedal to the standing position and has then lowered himself to the sitting position. (12.25 sec.)

BEHAVIOR SITUATION

PRONE

12.25 seconds

8 phases

Normative Series

Age: 60 weeks (56)

Child: B34

Seconds



- A 2.5 ¶ Infant pulls himself from the sitting to the quadrupedal position and takes a step forward. 2.5 Holds head in midposition, chin 6 inches above platform, forebody raised by arms extended perpendicularly downward, open hands on platform; hindbody raised by semi-extended legs, hips elevated slightly higher than shoulder; weight on hands and feet. Regards lure held aloft at foot of crib.



- B 2.75 Supporting weight on legs alone, lifts upper trunk to an angle of 60 degrees, arms semi-extending forward and downward, hands open. 3.25 Slowly erecting trunk, flexes right arm, forearm directed forward at chest level. 3.5 Flexes left arm, forearm directed forward and medially at chest level; extends both legs, trunk leaning forward at hips only. 3.75 Supporting weight on right foot, brings left foot forward, lifting it 1 inch in flexion.



- C 4.0 Places left foot on platform slightly in advance of right, leg extended; extends hips, standing fully erect, weight on both feet; directs right forearm forward and medially at chest level.

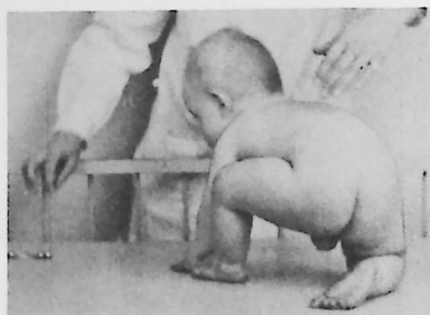


- D ..4.25 Stands with legs semi-extended and slightly abducted, trunk leaning slightly forward, back somewhat rounded; head in midposition in line with trunk; regards lure on platform at feet; arms semi-extended forward and downward toward lure, hands open. 4.5 Extends right arm downward.

Seconds



- E 10.25 Shifting weight to both hands and left foot, swings hips toward right by moving right knee 6 inches toward foot of crib (abduction); abducts left leg in semi-extension and lowers hips slightly; hands remain fixed on platform. (Infant has pivoted almost 90 degrees counter-clockwise and now faces left side of crib.) 11.0 Lifts right arm 2 inches in flexion and moves it forward (toward left side of crib); weight on left hand and right knee. 11.25 Extends right arm perpendicularly to platform and in line with left arm; brings left leg slightly closer to trunk. 12.25 Shifting weight to right hand, right knee, and left foot, lifts left arm 2 inches in flexion and moves it laterally (toward head of crib), swinging shoulders toward left (counter-clockwise).



- F 12.5 Places left hand slightly in advance of left foot, arm perpendicular to platform; flexes left leg and pivots on left foot and right knee. (Infant has pivoted 135 degrees counter-clockwise, and now faces left-hand corner of crib.) 12.75 Lifts right arm 1 inch and extends it forward (toward head of crib); weight on left hand and right knee. 13.0 Extends right arm to platform behind left arm. 13.25 Shifting weight to right hand and left foot, slides left hand 2 inches laterally (infant's left, but right side of crib), shoulders following, head in midposition; pivots on right knee. (Infant has pivoted almost 180 degrees counter-clockwise and faces head of crib.)



- G 13.75 Moves left foot back in line with right knee; weight on both hands and right knee. 14.0 Lifts left arm 1 inch and extends it forward; weight on right hand and left foot; lifts flexed right leg and brings it forward. 14.25 Places left hand on platform, arm extending forward in advance of right; places right foot on platform in advance of left, elevating hips as high as shoulders. 14.5 Lifts right arm 1 inch and extends it forward; weight on left hand and right foot. 15.0 Places right hand on platform, arm extending forward in advance of left; brings left foot forward.




- H 15.25 Places left foot on platform in advance of right. 15.5 Lifts left arm 1 inch and extends it forward; weight on right hand and left foot. 15.75 Places left hand on platform, arm extending forward in advance of right; brings right foot forward. 16.0 Places right foot on platform in advance of left. (Infant has crept forward about 2 feet on all fours, and has turned around and crept back to foot.) (16.25 sec.)


PRONE


16.25 seconds


8 phases

*Normative Series**Age: 52 weeks (48)**Child: B34**Seconds*

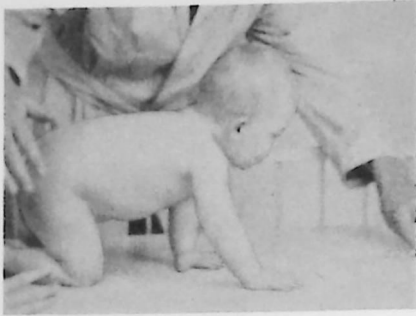
- 
- A 2.5 ¶ Infant pulls himself from the sitting to the quadrupedal position and has taken one step forward. 2.5 Holds head in midposition, chin 9 inches above platform, forebody raised by arms extended perpendicularly to platform, left arm slightly in advance of right; hands open; stands on both feet, right foot in advance of left, legs so flexed that hips are elevated no higher than shoulders; weight on right hand and left foot. Regards lure as Examiner draws it along platform about 12 inches before infant. 3.0 Lifts right arm 1 inch and extends it forward; weight on left hand and right foot. 3.25 Places right hand on platform, arm extending forward in advance of left; brings left leg forward.

- 
- B 3.5 Places left foot on platform in advance of right. 3.75 Lifts left arm 1 inch and extends it forward; weight on right hand and left foot. 4.0 Places left hand on platform, arm extending forward in advance of right. 5.0 Brings right leg forward. (Lure is now at foot of crib.)

- 
- C 5.25 Places right foot on platform in advance of left; weight on hands and feet. 7.0 Turns head half left. 8.25 Lifts right arm 2 inches and extends it forward and medially (toward left); weight on left hand and right foot; brings left foot forward. 8.5 Places right hand on platform, arm extending forward in advance of left; lowers right knee to platform; places left foot on platform in line with right knee.

- 
- D 9.5 (Examiner moves lure footward along infant's left side toward head of crib.) Supporting weight on both hands, right knee, and left foot, turns head fully left and swings shoulders toward left, hips toward right, pivoting on left foot. (Infant has pivoted 45 degrees counter-clockwise and faces left-foot corner of crib.)

Seconds



- E 7.75 Places right hand on platform, arm extending forward in advance of left; places left foot on platform in advance of right knee. 8.0 Lifts left arm 2 inches and extends it forward; weight on right hand and left foot; brings right knee forward in advance of left foot. 8.25 Places left hand on platform, arm extending forward in advance of right. 8.5 Lowers hips; lifts right arm 3 inches in flexion and brings it forward; weight on left hand and right knee. 8.75 Extends right arm perpendicularly to platform in advance of left; moves left leg forward, elevating hips. 9.0 Places left foot on platform in advance of right knee.



- F 9.25 Slides left hand forward in advance of right; weight on right hand and left foot; moves right knee forward in advance of left foot; lowers hips. (Lure is now 3 inches beyond infant's reach.) 9.5 Supporting weight on right hand, left foot, and acutely flexed right leg, lifts and 9.75 lowers, 10.0 lifts and 10.25 lowers, 10.5 lifts and 10.75 lowers left hand. 12.0 (Examiner moves lure nearer.) Lifts left hand, drawing it back slightly.



- G 12.5 Extends left arm forward, placing hand on lure; begins to swing hips to the right over right leg doubled under trunk. 13.0 Continuing swing, begins to erect trunk; lifts left arm in flexion to chest level, lure in hand.



- H 13.25 Completing swing, lowers buttocks to platform behind legs; sits almost erect, right arm still extended to platform. 13.5 Sits fully erect, head erect, right arm extended at side, free from platform; turns head half left and waves lure, moving left arm laterally to chest level. (Infant has crept forward about 3 feet on hands, right knee, and one foot, and has then assumed the sitting position. The infant is pivoted 90 degrees counter-clockwise in changing from creeping to sitting.) (13.75 sec.)

PRONE

13.75 seconds

8 phases

Normative Series

Age: 48 weeks (44)

Child: B34

Seconds

- A* 5.0 ¶ Infant pulls himself from the sitting position. 5.0 Now approximates the creeping position; head in midposition, chin 8 inches above platform, forebody raised by arms extended perpendicularly to platform; hands open; hips low; legs adducted and acutely flexed, knees under abdomen, feet under buttocks. Regards lure as Examiner draws it along platform about 18 inches before him. 5.5 Lifts left arm 2 inches and extends it forward; weight on right hand and left knee; brings right knee forward on platform in advance of left.
- B* 5.75 Places left hand on platform, arm extending forward in advance of right. 6.0 Lifts right arm 3 inches in flexion and brings it forward; weight on left hand and right knee; lifts left knee from platform, moving flexed leg forward.
- C* 6.25 Places right hand on platform, arm extending perpendicularly to platform in line with left arm; places left foot on platform in advance of right knee, left leg so flexed that hips are elevated only as high as shoulders. 6.75 Lifts left arm 2 inches and extends it forward; weight on right hand and left foot.
- D* 7.0 Places left hand on platform, arm extending forward in advance of left; moves right knee forward in advance of left foot, lowering hips. 7.5 Lifts right arm 3 inches in flexion and brings it forward; weight on left hand and right knee; moves flexed left leg forward, elevating hips.



Seconds



- E 11.75 Lifts right arm slightly and extends it forward; weight on left hand and right knee. 12.25 Places right hand on lure, arm extending forward and medially; moves left knee forward in advance of right. 12.75 Lifts left arm 1 inch and extends it forward; weight on right hand and both knees. 13.25 Places left hand on lure, arm directed forward and medially; hands in contact; weight on hands and knees. 14.25 Shifts left arm somewhat laterally on platform, holding lure in left hand; turns head half left and regards surroundings. 14.5 Draws back right hand 1 inch on platform.



- F 16.25 Draws back left hand 2 inches on platform; flexes knees acutely, lowering hips, and sits back on heels; weight on hands and lower legs. 17.5 Turns head to midposition.



- G 19.0 Leaning forward on hands, lifts hips and swings hindbody to the right over right leg, using right knee as a fulcrum; semi-extends left leg, foot on platform. 19.5 Completing swing, extends left leg and pushes foot against platform. 19.75 Draws back left hand 2 inches on platform; begins to lower buttocks to platform behind flexed right leg and to erect trunk. 20.25 Draws back right hand 4 inches on platform.



- H 21.0 Sits leaning forward, head in line with trunk; weight on buttocks and right hand; flexes left arm, lifting lure to mouth; right leg acutely flexed and outwardly rotated, foot close to pubis; left leg extended forward in adduction on platform before him. 21.25 Lifts right hand from platform, arm extending to knee, and sits erect mouthing lure. (Infant has crept forward about 12 inches on hands and knees, and has then assumed the sitting position. He pivoted 90 degrees counter-clockwise in changing from the creeping to the sitting position.) (22.5 sec.)

PRONE

22.5 seconds

8 phases

*Normative Series**Age: 44 weeks (40)**Child: B34**Seconds*

- A 7.75 ¶ Infant rolls from supine to prone position, having pivoted 60 degrees counter-clockwise. 7.75 Lies prone, head in midposition, chin 4 inches above platform; arms flexed, right forearm directed forward on platform, left forearm directed medially on platform; hands open; legs flexed in abduction and outward rotation, feet in contact 1 inch above platform; hips low. Regards lure on platform about 6 inches before him.

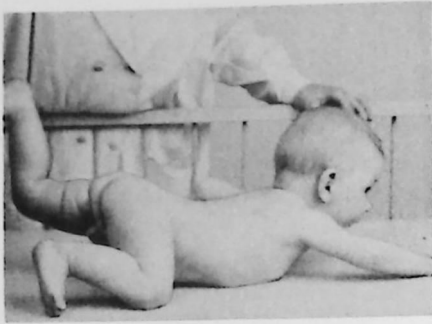
- B 8.75 Adducts flexed right leg into kneeling position (upper leg perpendicular to platform), lifting trunk free from platform; semi-extends left leg in slight abduction on platform; weight on forearms, right knee, and left leg. 9.25 Lifts right arm slightly and extends it forward; weight on left forearm and right knee. 9.5 Places right hand on platform, arm extending forward in advance of left; flexes left leg into kneeling position in advance of right knee.

- C 10.0 Extends left arm, hand fixed on platform, lifting head and shoulders 8 inches above platform; moves right knee forward in advance of left. (Assumes creeping position, weight on hands and knees.) 10.75 Moves left knee forward in advance of right; weight on left hand and right knee.

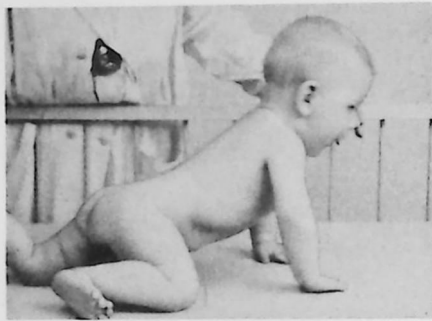
- D 11.25 Lifts left arm 1 inch and extends it forward; weight on right hand and left knee. 11.5 Places left hand on platform, arm extending forward in line with right; moves right knee forward in advance of left.



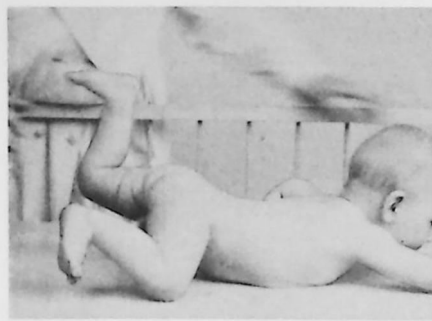
Seconds



E 7.5 Lifts right arm 1 inch and extends it forward toward lure, falling forward on chest (progression); head lowered, chin 2 inches above platform; hips elevated; right leg flexed in abduction and outward rotation on platform; left leg flexed 6 inches above platform; left arm flexed and directed forward. 7.75 Lowers right arm in extension to platform. 8.0 Flexes and draws back right arm, hand directed forward; brings left arm forward; lowers hips, lowering left leg to platform, knee flexed, foot lifted 4 inches above platform. 8.25 Places left hand on platform close to chest, arm flexed, forearm directed medially.



F 8.75 Extends arms, hands fixed on platform, and pushes with abducted right knee, lifting trunk free from platform; head erected 8 inches above platform. (Approximates creeping position.)



G 9.0 Lifts right arm 3 inches, extending it toward lure, and falls forward on chest (progression); head lowered, chin 1 inch above platform; hips elevated; right leg flexed in abduction and outward rotation, foot lifted 1 inch; left leg flexed 6 inches above platform; left arm flexed and directed forward. 9.25 Lowers extended right arm to platform; closes right hand on lure.



H 10.0 Holding lure, flexes right arm and draws it back, forearm directed medially on platform; lifts head, chin 3 inches above platform, and lowers hips; lowers left leg to platform, knee flexed, foot lifted 4 inches above platform; lifts right foot 3 inches above platform. 10.5 Brings flexed left arm forward, forearm directed medially on platform, hands engaging before chest. 11.5 Opens right hand holding lure; extends legs on platform, right leg abducted; left leg adducted. (Infant has progressed about 18 inches by assuming the creeping position and falling forward.) (11.75 sec.)

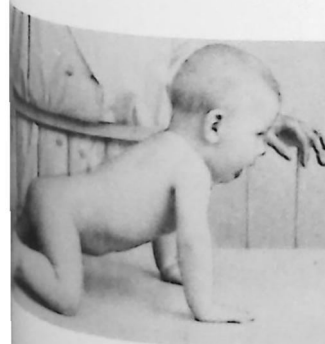
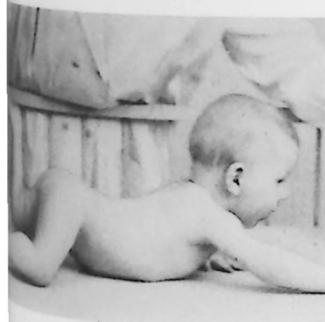
PRONE

11.75 seconds

8 phases

*Normative Series**Age: 40 weeks (36)**Child: B26**Seconds*

- A** 0.25 ¶ Lies prone, head in midposition and fully erect; arms flexed close to sides of chest, open hands directed forward on platform at chest level; legs adducted, knees flexed, feet lifted 5 inches; hips low. Regards lure as Examiner draws it along platform about 18 inches before infant. (Legs are in adduction without rotation, unless otherwise stated.) 0.75 Extends arms, hands and knees fixed on platform, and lifts trunk free from platform, head lifted 8 inches above platform. 1.25 Flexes right hip, bringing leg into kneeling position (leg flexed in adduction, upper leg perpendicular to platform, knee and lower leg on platform).
- B** 1.5 Flexes left leg into kneeling position, weight on hands and knees (creeping position). 2.25 Falls forward on chest, lowering head, chin 1 inch above platform, and elevating hips (progression); right leg flexed, knee on platform, foot lifted 3 inches; left leg flexed 8 inches above platform; arms flexed and directed forward, hands on platform, palms up. 2.75 Lifts left arm, bringing it forward; flexes right leg in abduction and outward rotation on platform. 3.25 Places left hand before chest on platform, arm flexed, forearm directed medially; lifts head fully erect and lowers hips, lowering left leg to platform, knee flexed, foot lifted 3 inches above platform. 3.75 Lifts right arm 3 inches, extending it forward toward lure; lowers left forearm to platform.
- C** 4.25 Lowers extended right arm to platform; strains toward lure, drawing left forearm closer to chest; rocks forward on chest, lowering head, chin 3 inches above platform, and elevating hips; right leg adducted and semi-extended on platform; left leg flexed, foot lifted 5 inches above platform. 4.75 Lowers head, chin 1 inch above platform; flexes right knee, lifting foot 2 inches; semi-extends left leg on platform. 5.25 Flexes right arm, drawing it back, hand directed forward on platform; lifts head, chin 3 inches above platform, and lowers hips; flexes right leg in abduction and outward rotation, foot 2 inches above platform; flexes left leg, lifting foot 4 inches. 5.5 Moves left forearm, directing it forward. 6.5 Lowers right foot to platform, leg flexed.
- D** 6.75 Extends arms, hands fixed on platform, and pushes with abducted right knee, lifting trunk free from platform; head lifted 8 inches above platform. (Approximates creeping position.)



PRONE

14.5 seconds

8 phases

Seconds



- E 8.5 Lowers left hand to platform, arm semi-extended forward and laterally; lifts head slightly, chin 3 inches above platform; extends left leg 1 inch above platform. 9.0 Draws back left arm in flexion, hand directed forward on platform. 9.5 Draws back right arm in flexion, hand directed medially on platform.



- F 9.75 Extends right arm laterally toward lure, hand on platform; rocks forward, lowering head slightly, chin 1 inch above platform, and elevating hips, left leg lifted 5 inches above platform. 10.0 Closes right hand. (Lure is moved to right knee zone.) Rocks backward, lifting head slightly, chin 2 inches above platform, and lowering hips, left leg on platform. 10.5 Opens right hand. 11.0 Lifts flexed left arm 1 inch, bringing it forward, and swings shoulders and chest to the right (forebody pivots slightly clockwise). 11.25 Places left hand on platform 3 inches lateral to chest, arm flexed, forearm directed forward.



- G 11.5 Draws back right arm in flexion, forearm directed medially on platform; semi-extends right leg on platform; swings extended left leg to the left, rocking to left thigh (hindbody pivots slightly clockwise). 12.0 Lifts right arm 3 inches above platform and extends it laterally. 12.5 (Lure is moved to right foot zone.) Lifts head slightly, chin 3 inches above platform; lowers right hand to platform, arm extended laterally; semi-extends left elbow, hand fixed on platform, pushing shoulder and chest to the right (forebody pivots slightly clockwise and thus right arm is now directed forward).



- H 14.25 Extends right arm laterally toward lure, hand on platform; rocks forward, lowering head slightly, chin 1 inch above platform; shifts semi-extended left arm laterally; draws up right leg in flexion, abduction and outward rotation on platform, and swings hips to the left (hindbody pivots slightly clockwise). (Infant has pivoted 45 degrees clockwise.) (14.5 sec.)

PRONE

14.5 seconds


8 phases

Normative Series

Age: 36 weeks (32)*

Child: B34

Seconds

- 
- A 0.25 ¶ Lies prone, head turned half left and held fully erect; right arm extended, left arm flexed, forearms directed forward on platform before chest, hands open; legs extended on platform; hips low. Regards lure as Examiner dangles it before him. (Legs are adducted without rotation, unless otherwise stated.) 0.5 Draws back right arm in flexion, forearm directed forward on platform; flexes legs, lifting feet 3 inches. 0.75 Extends right leg on platform. 1.0 Flexes right leg, lifting foot 3 inches.
- B 1.25 (Lure is lifted above level of infant's head.) Turns head to midposition and tilts it backward beyond vertical plane; with hands fixed on platform, extends arms, lifting chest and pushing trunk backward 2 inches; extends legs on platform. 3.0 Flexes legs, lifting right foot 1 inch, left foot 3 inches. 3.25 Slides right hand forward and flexes left arm, forearm directed forward on platform, lowering chest; turns head to right, bringing it forward to fully erect position; extends legs on platform. Regards surroundings. 4.0 (Lure is lowered to head zone.) Regards lure, turning head to midposition, and lowering it slightly, chin 3 inches above platform; flexes right leg in abduction and outward rotation on platform; rocks forward, elevating hips; extended left leg lifted 3 inches; flexes right arm, forearm directed forward on platform.
- C 4.5 (Lure is placed in right shoulder zone.) Regards lure, turning head half right and lifting it slightly; rocks backward, lowering hips; extends legs in adduction, right leg lifted 1 inch, left leg on platform. 4.75 Semi-extends right arm laterally, hand on platform; rocks forward, lowering head slightly and elevating hips, extended left leg lifted 3 inches; flexes right leg, lifting foot 3 inches above platform. 5.5 (Lure is moved to right chest zone.) Turns head fully right, lifting it slightly; rocks backward, lowering hips; flexes right leg in abduction and outward rotation on platform; extends left leg on platform; flexes right arm, directing forearm forward on platform, hand closed. 6.25 Lowers head slightly.
- D 7.5 Extends right arm laterally toward lure, open hand on platform; rocks forward, lowering head, chin 1 inch above platform, and elevating hips, extended left leg lifted 5 inches. 8.0 (Lure is moved to right abdominal zone.) Regards lure, lifting head, chin 2 inches above platform; rocks backward, lowering hips; flexes left leg, foot 2 inches above platform. 8.25 Lifts flexed left arm 1 inch, bringing it forward, and swings shoulders and chest slightly to the right (forebody pivots slightly clockwise).

*NOTE. The figures in parentheses indicate the chronological age of this child, whose prone behavior from 32 through 56 weeks is normatively illustrative of an advanced age level.

Seconds



- E 5.5 Slides extended right arm slightly forward, hand on platform; extends left arm, hand fixed on platform; flexes legs, lifting feet 4 inches above platform, weight returning to both thighs. 6.0 Pushes against platform with extended left arm, moving shoulders slightly to the right; extends legs on platform. Regards lure. 6.5 Flexes legs, lifting feet 4 inches.



- F 6.75 Lifts left arm 5 inches in flexion and rocks to the left, shoulders returning to median position; right leg lifted 4 inches in adduction and extension, weight on left thigh. 7.0 Lowers left arm in extension, hand directed forward on platform; flexes legs, right leg adducted, feet 2 inches above platform, weight returning to both thighs. 7.5 Extends legs on platform, right leg adducted; moves shoulders slightly to the right. 7.75 Closes left hand on blotter edge; straightens shoulders.



- G 8.25 Turns head to midposition, lowering it slightly, chin 4 inches above platform; regards left hand holding blotter edge; flexes both legs in abduction and outward rotation, right foot lifted 3 inches, left foot lifted 2 inches, feet in contact. 8.75 Draws back extended left arm very slightly, hand directed forward on platform.



- H 9.0 Turns head fully right, lifting it fully erect, and regards lure; extends right leg in adduction, foot 1 inch above platform. 9.25 Opens left hand; flexes legs, lifting right foot 3 inches above platform, left foot 4 inches above platform. 9.75 Regards mother at right. Slides left arm forward slightly in extension, forearm on platform; extends right leg in adduction, foot 1 inch above platform; lowers left foot to a position 2 inches above platform; leg flexed. 10.0 Closes left hand; extends legs on platform in abduction; rocks to left thigh. 10.25 Regards lure. (Infant has pivoted clockwise an almost imperceptible amount by rocking from one thigh to the other.) (10.5 sec.)

PRONE

10.5 seconds

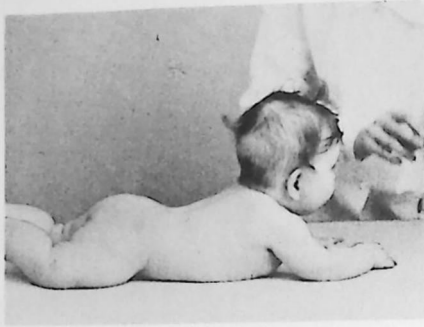
8 phases

*Normative Series**Age: 32 weeks**Child: B36**Seconds*

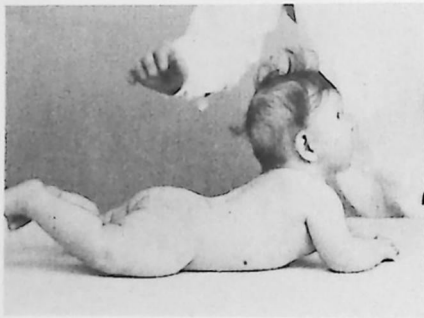
- A** 0.25 ¶ Lies prone, head turned right and held fully erect; right arm extended, left arm flexed, forearms directed medially before chest, open hands in contact on platform; right leg extended in abduction on platform; left leg flexed in abduction and outward rotation, foot lifted 2 inches above platform; hips low. (Lure is placed on platform beside infant's right hand.) Regards mother's hand approaching lure. (Legs are in abduction and outward rotation, unless otherwise stated.) 1.0 Lowers left foot to platform, leg flexed. 1.25 Lifts left foot 4 inches.
- B** 1.5 (Mother shakes lure.) Regards surroundings. Slides right arm somewhat laterally; lifts left arm 3 inches in flexion; rocks slightly forward and to the left, lowering head turned half right, chin 3 inches above platform, and elevating hips; flexed right leg lifted 5 inches above platform; feet in contact; weight on right hand, chest, abdomen, and left thigh. 1.75 Flexes arms, directing forearms forward on platform; extends right leg on platform, returning weight to both thighs. 2.0 Flexes right knee, lifting foot 2 inches; lowers left foot to a position 2 inches above platform; feet in contact.
- C** 2.25 Extends both arms, hands fixed on platform, and lifts chest, rearing head to the fully erect position; turns head fully right; extends right leg on platform. Regards lure. 2.75 Flexes right leg acutely, foot lifted 1 inch, heel against buttock. 3.5 Tilts head backward beyond vertical plane and regards mother at right; lifts right foot 2 inches above platform; feet in contact. 4.5 Extends right leg on platform; lowers left foot to a position 1 inch above platform.
- D** 4.75 Lifts left arm 3 inches in flexion and rocks slightly forward and to the left, bringing head forward to the fully erect position; flexes legs, right foot lifted 4 inches above platform, left foot 2 inches above platform; weight on left thigh. 5.0 Lowers left forearm to platform, arm flexed, forearm directed forward; extends legs on platform.



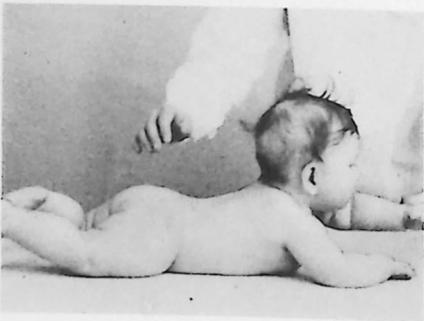
Seconds



- A 0.25 ¶ Lies prone, head turned half left and held fully erect; right arm semi-extended, left arm flexed, forearm directed medially on platform before chest, hands open; legs extended on platform; hips low. (Legs are in adduction without rotation, unless otherwise stated.) Regards lure directed before him by Examiner. 0.75 Turns head to midposition; closes right hand; flexes left leg in abduction and outward rotation, lifting foot 2 inches; rocks to right thigh. 1.0 (Lure is lifted.) Lifts left arm 4 inches in flexion; rocks to left thigh, right leg lifted 3 inches. 1.25 Tilts head backward beyond vertical plane; lowers left arm in extension, forearm directed forward on platform; flexes right arm, forearm directed medially on platform; adducts flexed left leg, lifting foot 3 inches above platform. 1.75 Opens right hand.



- B 2.0 Flexes left arm, forearm directed medially on platform, hands engaging; rocks to right thigh, right leg flexed, foot lifted 2 inches above platform. 2.5 Weight returns to both thighs. Closes right hand. 3.0 Extends right leg on platform; abducts flexed left leg in outward rotation, foot lifted 3 inches above platform; rocks to right thigh. 3.25 Lowers left foot to a position 1 inch above platform, leg flexed and abducted. 3.5 Opens right hand; flexes right leg, lifting foot 3 inches; weight returns to both thighs. 3.75 Flexes abducted left leg, foot lifted 3 inches above platform. 4.0 Semi-extends right arm, forearm directed forward on platform; extends left leg in adduction on platform. 4.25 Lifts flexed left arm 2 inches. 4.5 Lowers left arm, forearm directed forward on platform. (Lure is lowered.) Brings head to erect vertical position.



- C 5.0 Closes right hand; lifts left arm 2 inches, extending it forward toward lure; extends right leg on platform; flexes left leg, lifting foot 2 inches. 5.5 Moves right forearm medially on platform, arm semi-extended; flexes legs, lifting feet 4 inches above platform. 6.5 Closes left fingers on lure. (Examiner releases lure.) 7.0 Flexes left arm, elbow on platform, and lifts lure to mouth. 7.25 Regards surroundings. 7.5 Flexes right arm, elbow on platform, and lifts forearm 2 inches; opens right hand.



- D 8.5 Lifts right hand and closes hand on lure at mouth; lowers right foot to a position 3 inches above platform, lowers left foot to a position 2 inches above platform, legs flexed. 8.75 Turns head half left. Regards Examiner's hand. 9.5 Extends legs on platform. (9.75 sec.)

Seconds



- E ..16.25 (Examiner replaces infant in prone position, then places lure within easy reach on platform.) ..16.25 Holds head in midposition, chin 3 inches above platform; arms extended forward, right arm directed somewhat laterally, open hands on platform; legs flexed, feet lifted 4 inches above platform; hips low. Regards lure.



- F 17.75 Draws back left arm, flexing elbow, forearm directed medially on platform; moves right arm, directing it forward toward lure; rocks slightly to the left, tilting head toward left shoulder; right leg 2 inches in semi-extension above platform; weight on left thigh. 18.75 Closes right hand. Regards surrounding. 19.5 Opens right hand; lowers extended right leg to a position 1 inch above platform. Regards lure. 20.0 Closes right hand (scratching). 20.25 Flexes lifted right leg, lifting foot 4 inches above platform. 20.5 Opens right hand.



- G 21.75 Lowers head slightly, chin 2 inches above platform, left hand resting on left forearm; draws back right arm, flexing elbow; forearm directed forward on platform. 22.75 Moves left hand arm medially.



- H 23.25 Moves right forearm medially, clasping lure with both hands; turns head to midposition and lowers it, chin 1 inch above platform; mouths lure. Lowers right thigh to platform, leg flexed; foot lifted 4 inches above platform. Regards surrounding. 23.75 Closes right hand (scratching). (24.5 sec.)

PRONE

24.5 seconds

8 phases

Normative Series

Age: 24 weeks

Child: G48

Seconds

- Behavior*
- A** 0.25 ¶ Lies prone, head in midposition, chin 5 inches above platform; right arm semi-extended, hand directed medially on platform before chest; left arm flexed, forearm directed medially on platform before chest; hands closed; legs flexed in adduction, right foot lifted 3 inches, left foot lifted 4 inches above platform; hips low. (Legs are in adduction without rotation, unless otherwise stated.) Regards surroundings.
- B** 1.0 Flexes right arm, directing forearm medially on platform; opens right hand; lowers head, chin 4 inches above platform. 1.5 Lowers left foot to a position 3 inches above platform, leg flexed. 2.75 Abducts flexed right leg in outward rotation, foot 2 inches above platform.
- C** 3.25 Rolls half way to right side; head lowered and turned half right, chin 2 inches above platform; right arm extended medially across platform; left arm hidden from view; right leg semi-extended, foot 1 inch above platform; left leg flexed in adduction, foot lifted 4 inches above platform. 3.75 Abducts flexed left leg, foot 3 inches above platform. 4.75 Rolls hips fully right; extends left hip, leg adducted, knee flexed, foot projecting backward and lifted 4 inches. 5.25 Extends right leg on platform; turns hips to half right position; flexes left hip, flexed knee projecting forward, foot lifted 4 inches. 5.75 Closes right hand; rolls hips fully right; extends left hip, knee flexed, foot projecting backward and lifted 4 inches.
- D** 6.25 (Examiner places lure on platform just beyond infant's head.) Rolls shoulder and head fully right, right ear and cheek on platform; arms hidden from view; turns hips to half right position, left hip flexed, flexed knee projecting forward, foot on platform. 9.0 Extends left arm headward, open hand on platform. 9.5 Withdraws left arm (hidden from view). 10.25 Extends head and regards lure; extends left arm headward toward lure, closed hand on platform; lifts left foot 2 inches above platform, leg flexed at hip and knee, knee projecting forward.



PRONE

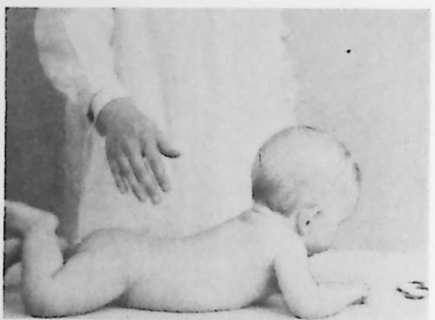
11.5 seconds

8 phases

Seconds



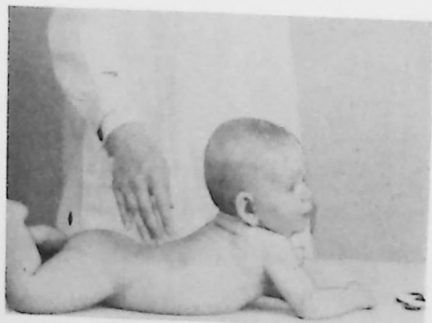
- E 5.75 (Examiner moves lure slightly.) Turns head half left. Regards Examiner's hand. Opens right hand; extends right leg on platform. 6.25 Closes right hand (scratching); flexes right leg, lifting foot 3 inches. 6.5 Lowers head, chin 3 inches above platform. Regards lure. 7.0 Opens right hand; extends right leg on platform; lifts left foot to a position 2 inches above platform.



- F 7.75 Flexes right arm, directing forearm somewhat medially on platform; closes right hand (scratching); flexes right leg, lifting foot 3 inches. 8.25 Opens right hand. 8.75 Closes right hand (scratching); lifts right foot to a position 5 inches above platform. lifts left foot to a position 3 inches above platform.



- G 9.5 Opens right hand; extends right leg on platform. 10.0 Closes right hand (scratching); flexes right leg, lifting foot 3 inches; extends left leg on platform. 10.5 Flexes left leg, lifting foot 1 inch



- H 11.0 Arches back; lifts head fully erect and tilts it toward right shoulder. Regards surroundings. (11.5 sec.)

BEHAVIOR SITUATION

PRONE

11.5 seconds

8 phases

Normative Series

Age: 20 weeks

Child: B36

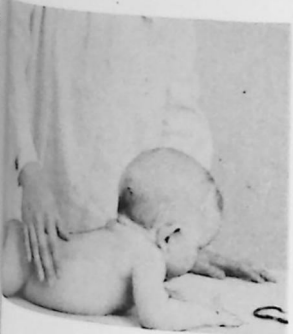
Seconds

- A 0.25 ¶ Lies prone, head in midposition and fully erect; right arm semi-extended, left arm flexed, forearms directed forward on platform before chest, hands closed; legs flexed, abducted and outwardly rotated, right foot lifted 4 inches, left foot lifted 2 inches above platform; hips low. (Legs when flexed are in abduction and outward rotation, and when extended are in adduction without rotation, unless otherwise stated.) Infant regards Examiner's hand as lure is placed on platform before him. 0.5 Extends right leg on platform.

- B 1.0 Turns head half left and regards Examiner's withdrawing hand; flexes right leg, foot lifted 2 inches; lifts left foot 3 inches above platform. 1.5 Regards lure. 2.0 Lowers head, chin 3 inches above platform. 2.25 Lowers right foot to a position 1 inch above platform, left foot to a position 2 inches above platform, legs flexed.

- C 3.25 Draws back right arm in flexion, forearm directed forward on platform, hand open; rocks forward slightly, lowering head, chin 2 inches above platform. 3.75 Turns head to midposition, lifting it slightly, chin 3 inches above platform; closes right hand (scratching); adducts legs in flexion, lifting feet 4 inches above platform. 4.0 Lifts feet 5 inches above platform, legs flexed, abducted and outwardly rotated.

- D 4.25 Semi-extends right arm, sliding forearm slightly forward on platform, hand open; rocks backward, lifting head fully erect; lowers feet, right foot to a position 2 inches above platform, left foot to a position 1 inch above platform, legs flexed. 4.75 Extends right leg on platform. 5.0 Closes right hand (scratching); lifts left foot to a position 4 inches above platform. 5.25 Flexes right leg, lifting foot 3 inches. 5.5 Lowers left foot to a position 1 inch above platform.



PRONE

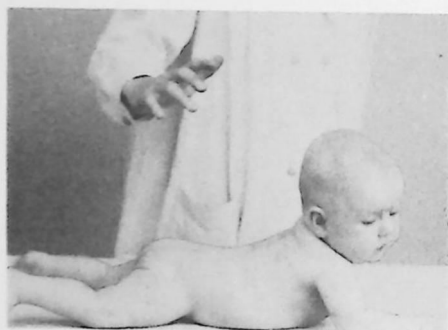
10.75 seconds

4 phases

Seconds



- A 0.25 ¶ Lies prone, head turned half right and held fully erect; arms flexed, forearms on platform before chest, right forearm directed forward, left forearm directed medially, hands closed; legs flexed in slight abduction and outward rotation, feet lifted 2 inches; hips low. (Legs are in slight abduction and outward rotation, unless otherwise stated.) Regards surroundings. 1.0 Turns head to midposition; extends legs on platform.



- B 2.25 Turns head half right and tilts it toward right shoulder; slides right forearm slightly forward on platform, arm in semi-extension. 3.5 Lowers head and turns it half left, chin 3 inches above platform.



- C 4.25 Lowers head and turns it to midposition, chin 2 inches above platform; moves left forearm, directing it forward on platform, hand open; flexes right leg, lifting foot 1 inch above platform. 4.75 Regards right hand. Closes left hand. 5.5 Extends right leg on platform.



- D 6.25 Lowers head, chin 1 inch above platform; rocks forward slightly, flexes right elbow, forearm fixed on platform. Regards surroundings. 6.75 Regards right hand. Flexes right leg, lifting foot 3 inches; draws up left leg in flexion, abduction and marked outward rotation, knee and foot on platform. 7.0 Extends right leg on platform. 7.5 Turns head half left and regards surroundings; extends left leg on platform. 9.5 Lifts head and turns it half right, chin 2 inches above platform; flexes left leg, lifting foot 2 inches. 9.75 Rocks backward, semi-extending right elbow, forearm fixed on platform; extends left leg on platform. Regards right hand. 10.0 Flexes left leg, lifting foot 2 inches. (10.75 sec.)

PRONE

27.25 seconds

8 phases

Seconds



E 13.25 Lowers head, chin 1 inch above platform; extends right leg on platform. 14.0 (Examiner lowers lure.) 14.25 Regards lure. Slides right forearm slightly forward on platform, hand open. 14.75 (Examiner lifts lure.) Regards surroundings. 15.5 Lifts head, chin 2 inches above platform; closes right hand.



F 16.25 Lifts head, chin 3 inches above platform, and regards lure; moves right forearm, directing it forward on platform. 18.0 Flexes legs, lifting feet 1 inch. 18.75 Extends left leg on platform. 19.25 Lowers head, chin 2 inches above platform.



G 20.0 Lowers head, chin 1 inch above platform; regards surroundings, extends right leg on platform. 20.75 (Examiner lowers lure.) Lifts head, chin 2 inches above platform. 21.25 Regards lure. 21.5 (Examiner lifts lure.) 22.25 Moves left forearm, directing it medially on platform; lifts right leg 1 inch in extension, abducting it slightly. 23.0 Lowers right leg to platform in extension and adduction.



H 23.75 Moves right forearm forward and slightly toward midline on platform. 25.25 Lifts head, chin 3 inches above platform. (27.25 sec.)

PRONE

27.25 seconds

8 phases

*Normative Series**Age: 12 weeks**Child: G57**Seconds*

- A 0.25 ¶ Infant is held in ventral suspension, Examiner's hands supporting thorax; head in midposition and held in line with trunk; arms flexed, upper arms close to sides, forearms hanging toward platform, right hand open, left hand closed; legs flexed in adduction at hips and knees, toes touching platform; back straight. Regards surroundings. (Examiner lowers infant and places him in prone position on platform.)

- B 5.25 Lies prone, head in midposition, chin 3 inches above platform; arms flexed, forearms on platform in shoulder zone, right forearm directed forward and somewhat laterally, left forearm directed forward and slightly toward midline, hands closed; legs extended in adduction on platform; hips low. (Legs are in adduction without rotation, unless otherwise stated.)

- C 6.0 Lowers head to platform and rocks forward slightly, elevating hips; flexes right leg in slight abduction and outward rotation, lifting foot 2 inches. 6.75 (Examiner dangles lure before infant.) Opens right hand; flexes right knee acutely, lifting foot 5 inches above platform, heel against buttock, leg in slight abduction and outward rotation.

- D 8.0 Lifts head, chin 2 inches above platform, and rocks backward, lowering hips; extends right leg on platform. Regards lure. 8.75 (Examiner lifts lure slightly.) 11.0 Closes right hand. 12.75 Lifts head, chin 4 inches above platform; flexes left leg in slight abduction and outward rotation, lifting foot 1 inch. Regards surroundings.



Seconds



E 12.25 Draws up right leg into kneeling position. 13.0 Lowers chin to a position just above platform. 14.5 Lifts right foot 1 inch, leg in kneeling position. 16.5 Lowers head to platform; abducts legs in flexion and slight outward rotation, right foot 1 inch above platform, left foot on platform. 17.5 Lifts head, chin 1 inch above platform; lowers hips slightly.



F 18.5 Regards lure. 18.75 Lifts left foot 1 inch, leg flexed. 19.5 Lifts right foot 3 inches above platform, leg flexed, feet in contact. moves left forearm slightly toward midline on platform.



G 21.5 Lifts head, chin 2 inches above platform. 23.0 Moves right forearm, directing it medially on platform behind left forearm. 28.25 Lowers head, chin 1 inch above platform. 29.0 Lowers left foot to platform, leg flexed. 29.75 Lifts head, chin 2 inches above platform. 31.0 Lifts left foot 1 inch.



H 31.5 Lifts head, tilting it toward left shoulder, chin 3 inches above platform. 32.5 moves medially directed left forearm slightly forward on platform. 33.0 Flexes right leg acutely, foot lifted 5 inches above platform, heel against buttock; elevates hips. 33.25 Lowers head, chin 2 inches above platform. 33.5 Draws medially directed left forearm closer to chest; lowers right foot to a position 3 inches above platform, leg flexed. 34.0 Lowers left foot to platform, leg flexed. 34.75 Lowers hips slightly. 35.25 Lifts left foot 1 inch. 37.5 Lowers head and turns it half right, still tilted toward left shoulder, chin 1 inch above platform. 38.25 Lowers right foot to a position 1 inch above platform, left foot to platform, legs flexed. (38.5 seconds)

BEHAVIOR SITUATION

PRONE

38.5 seconds

8 phases

Normative Series

Age: 8 weeks

Child: B47

Seconds

- A 0.25 ¶ Infant is held in ventral suspension, Examiner's hands supporting thorax; head turned half left and held in line with trunk; arms flexed, upper arms close to sides, forearms hanging toward platform, right hand open, left hand closed; legs flexed in abduction and outward rotation and held in line with trunk; feet in contact; back straight. Regards surroundings. (Examiner lowers infant and places him in prone position on platform.)

- B 3.25 Lies prone, head turned left on platform; right arm flexed close to head, forearm directed forward and slightly toward midline on platform, hand closed; left arm hidden from view; legs flexed in abduction and outward rotation, right foot lifted 1 inch, left foot on platform; hips elevated. (Legs when flexed are in abduction and outward rotation, and when extended are in adduction without rotation, unless otherwise stated.) 4.0 Turns head to midposition. 4.25 Extends legs and pushes against platform with feet, moving trunk very slightly headward; draws back right arm close to shoulder, directing forearm forward and medially on platform.

- C 5.0 Lifts chin just above platform; flexes right leg, lifting foot 1 inch; flexes left leg in adduction, foot on platform; lowers hips slightly. 5.75 Extends right leg on platform; feet apart. 6.5 Lifts head and turns it half left, chin 1 inch above platform; flexed left arm visible close to shoulder, forearm directed forward and medially on platform, hand closed.

- D 8.75 Lowers head to platform in midposition; extends legs on platform; lowers hips slightly. 9.25 Lifts chin just above platform; flexes right leg in adduction, lifting foot 1 inch. 10.25 Lifts head, chin 1 inch above platform. 11.0 (Examiner dangles lure before infant.) 11.75 Draws up left leg into kneeling position (leg flexed in adduction, upper leg perpendicular to platform, knee and lower leg on platform), and elevates hips.



PRONE

23.0 seconds

8 phases

Seconds



E ..18.25 (Examiner gently lifts and turns infant's head to midposition, then dangles lure before him.) ..18.25 Holds head turned half right, chin lifted 1 inch above platform; right arm flexed close to head, left arm flexed close to shoulder, both forearms directed forward on platform, hands closed; right leg drawn up in acute flexion, slight abduction and outward rotation on platform, heel under buttock; left leg extended on platform; hips elevated.



F 19.25 Turns head to midposition; extends right leg in adduction on platform. 20.25 Lifts head, chin 2 inches above platform; regards lure; flexes right leg, lifting foot 1 inch.



G 20.5 Draws up right leg in acute flexion, slight abduction and outward rotation on platform, heel under buttock. 21.5 Flexes left leg, lifting foot 2 inches.



H 21.75 Turns head fully right and lowers it to platform; extends right leg in adduction on platform; lowers left foot to a position 1 inch above platform, leg flexed. Regards surroundings. 22.75 Lifts chin just above platform. (23.0 sec.)

BEHAVIOR SITUATION

PRONE

23.0 seconds

8 phases

Normative Series

Age: 6 weeks

Child: G61

Seconds

A 0.25 ¶ Infant is held in ventral suspension, Examiner's hands supporting thorax; head turned half right in line with trunk; arms extended and hanging toward platform, hands closed; legs semi-extended in adduction and hanging toward platform; back rounded. Regards surroundings. (Examiner lowers infant and places him in prone position on platform.) 6.25 Lies prone, head turned half right, chin lifted just above platform; right arm flexed on platform, forearm directed forward close to head, hand closed; left arm hidden from view; legs semi-extended in adduction on platform; hips slightly elevated. (Legs are adducted, unless otherwise stated.)

B 7.5 Lowers head to platform; flexes legs, lifting feet 1 inch. 8.0 Lifts right foot 3 inches above platform, leg flexed.

C 8.25 Lifts chin just above platform; lifts left foot 3 inches above platform, leg flexed. 8.75 Lifts right knee just above platform, elevating hips.

D 9.25 Turns head fully right and lowers it to platform; lowers right knee to platform, foot 3 inches above platform; extends left leg on platform; lowers hips slightly. 10.0 Flexes left leg, lifting foot 3 inches. 11.25 Extends left leg on platform. 11.75 Extends right leg on platform.



PRONE

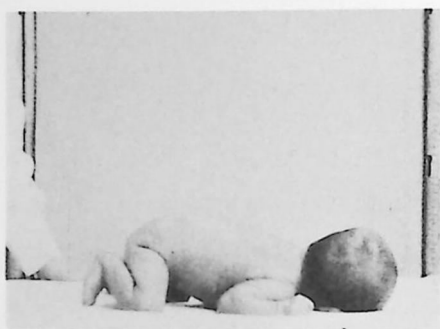
21.5 seconds

8 phases

Seconds



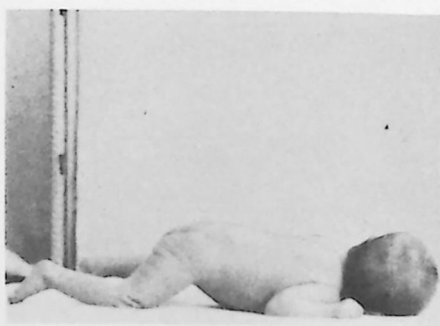
E 12.0 Turns head to half left extended position; semi-extends right hip and flexes knee, lifting foot 3 inches above platform, leg in adduction; draws up left leg, flexing it acutely in very slight abduction and outward rotation on platform, knee under abdomen. 12.25 Turns head fully left; abducts right leg and flexes knee, lowering foot to platform; lowers hips slightly. 13.25 Lifts right foot 2 inches, leg flexed. 13.75 Lifts left leg 1 inch in acute flexion, abduction and outward rotation. 14.0 Lowers left leg in acute flexion, very slight abduction and outward rotation to platform, knee under abdomen. 14.25 Lowers right foot to platform, leg flexed. 15.0 Lifts right foot 2 inches.



F 17.0 Lies prone, head turned left on platform; right arm flexed close to chest, forearm just lateral to shoulder and directed headward on platform, hand closed; left arm hidden from view; both legs drawn up in acute flexion, very slight abduction and outward rotation on platform, right knee under pelvis, left knee under abdomen; hips elevated. 17.25 Adducts both legs, shifting them to kneeling position. 18.0 Draws up both legs in acute flexion, very slight abduction and outward rotation on platform, right knee under pelvis, left knee under abdomen. 18.75 Adducts both legs, shifting them to kneeling position.



G 19.5 Lifts right foot 2 inches, leg in kneeling position; pushes against platform with left foot, lifting left knee 1 inch above platform and elevating hips. 20.5 Draws up both legs in acute flexion, abduction and outward rotation, right leg on platform, knee under pelvis, left knee 1 inch above platform; lowers hips slightly. 21.0 Adducts right leg, shifting it to kneeling position; elevates hips.



H 21.25 Semi-extends both legs in slight abduction on platform, lowers hips slightly. (21.5 sec.)

PRONE

21.5 seconds

8 phases

*Normative Series**Age: 4 weeks**Child: G60**Seconds*

A 0.25 ¶ Infant is held in ventral suspension, Examiner's hands supporting thorax; head in midposition; arms extended, hands closed; legs extended in adduction, toes touching platform; back rounded; head, arms, and legs hanging toward platform. (Infant is slowly lowered to platform.) 1.0 Makes small lateral head movements. 2.5 Semi-flexes right arm, directing forearm medially. 3.0 Weight of descending trunk causes passive flexion of adducted legs to a right angle at hips and knees. 3.5 Left hand touches platform and arm flexes passively. 4.5 Forehead touches platform and neck extends passively, face resting on platform.

B 4.75 Flexes right arm close to side of chest, forearm directed headward, hand on upper chest. 6.5 Lies prone, head in midposition on platform; right arm acutely flexed, forearm medial to shoulder and directed headward on platform, hand closed; left arm hidden from view; draws up right leg in acute flexion, very slight abduction and outward rotation on platform, knee under abdomen, heel under buttock; left leg remains flexed in adduction, upper leg perpendicular to platform, knee and lower leg on platform (kneels); hips elevated. (Legs are in abduction and outward rotation, unless otherwise stated.)

C 7.25 Turns head half left; draws up left leg, flexing it acutely in very slight abduction and outward rotation on platform, knee under abdomen, heel under buttock.

D 11.75 Turns head fully left; adducts legs, shifting them to kneeling position, right foot lifted 1 inch; elevates hips slightly.



Seconds



- E 1.75 Extends left arm, hand fixed on platform, pushing head and shoulders slightly toward midline; lifts extended left leg in adduction 2 inches above platform. Regards surroundings. 2.0 Continues to push head and shoulders medially, head now 8 inches above platform. 2.5 Continues to push head and shoulders medially, head now 10 inches above platform; turns head and shoulders to mid-position; moves extended right arm somewhat laterally, arm lifted 4 inches above platform. Regards feet. Faces directly forward, still leaning slightly backward and toward left.



- F 2.75 Shifts left hand 2 inches medially, arm extended laterally to platform, hand open; moves head and trunk medially and forward; extends left leg in abduction on platform. Sits almost erect, leaning back very slightly, head tilted forward.



- G 3.0 Lifting arms laterally in extension, right arm 4 inches, left arm 2 inches above platform, brings trunk forward and sits erect with head tilted forward. 3.25 Lifts arms laterally to shoulder level.



- H 3.5 Leaning forward, grasps feet with hands; flexes legs on platform (4.0 sec.)

Seconds

A 0.25 ¶ In an effort to go from supine to sitting, infant lifts head and shoulders 6 inches above platform and leans toward left, resting on left elbow; left arm flexed, forearm directed laterally on platform; right arm flexed at chest level, forearm directed forward; hands open; legs extended and widely abducted on platform; pelvis deviated to the right. (Legs when flexed are in abduction and outward rotation, and when extended are in adduction without rotation, unless otherwise stated.) Regards surroundings.

B 0.5 Straining to sit, semi-extends left arm, pushing head and shoulders somewhat medially; flexes hips, lifting right leg 2 inches in extension and abduction, left leg 5 inches in extension and adduction. . . 0.75 Resumes supine position; head in midposition on platform; arms extended laterally; legs flexed, feet on platform; trunk straight. Regards Examiner.

C . . 1.0 Rolls toward left, turning head and lifting it 2 inches above platform, extending right arm across chest toward left, rolling right leg inward, and lifting left leg 1 inch in flexion and outward rotation. Left arm remains extended laterally on platform. Regards left hand.

D 1.25 Closes left hand on blotter edge; flexes left arm, lifting head and shoulders 4 inches above platform; extends left leg in abduction on platform. 1.5 Pushing upward and medially with left arm, lifts head and shoulders 6 inches above platform and turns toward midline (to half left position); extends right arm forward, arm lifted 4 inches above platform; swings pelvis toward right; abducts and extends right leg on platform. Infant is now half sitting, leaning to the left and backward. (To assume erect sitting position, infant must move trunk medially as well as forward.)

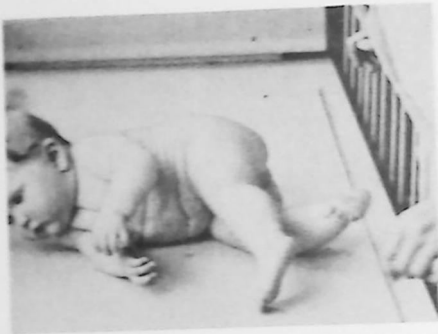


Seconds



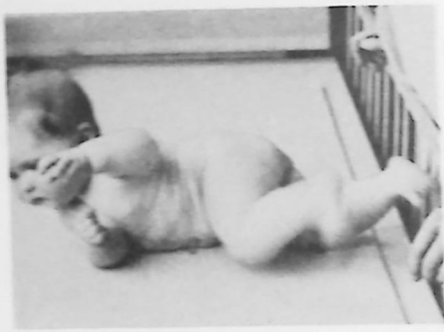
A 0.25

¶ A lure is placed beyond reach at infant's right to induce activity. Infant has rolled from supine position to right side (half way to prone). 0.25 Lies with head and trunk turned to the right; right arm extended laterally on platform; left arm extended across chest toward lure at right and lifted 3 inches above platform; hands open; right leg flexed and inwardly rotated, foot lifted 3 inches; left leg extended, foot on platform at right.



B 0.75

Lifts head 1 inch; flexes left arm 3 inches above platform, drawing arm toward medial chest zone; rolls shoulders farther to the right. Weight now rests squarely on right side, right shoulder and upper arm. 1.0 Lifts right forearm 2 inches in medial chest zone.



C 1.25

Lifts head 4 inches above platform, rolling head and trunk farther to the right (three quarters of distance to prone); lifts flexed left arm 5 inches above platform in right lateral shoulder-head zone; flexes left leg in outward rotation, lifting foot 5 inches. Swings lifted right forearm in headward direction.



D 1.75

Extends left arm on platform toward lure, rolling trunk to prone position, head lifted 4 inches in midposition, both legs in flexion and outward rotation, feet lifted 3 inches above platform. Shifts flexed right arm laterally. (2.25 sec.)

Seconds



E 7.25 Lifts head 2 inches above platform; closes right hand; lifts and flexes left arm, drawing hand back to medial chest zone; lifts extended legs to platform. 7.75 Opens right hand.



F 8.75 Lowers head to a position 1 inch above platform; extends left arm to platform toward lure; lifts extended legs 3 inches.



G 10.25 Lifts head 3 inches above platform; lowers flexed right forearm to platform in lateral chest zone; draws back left arm and extends it at left side of trunk. 11.0 Lowers extended legs to platform. 12.25 Lifts right forearm in lateral chest zone; lifts left arm in flexion in medial chest zone; lifts extended left leg 3 inches. Regards surroundings. 12.75 Lifts extended right leg 2 inches; flexes left leg obtusely, lifting foot 5 inches from platform; begins to return to supine position.



H 13.25 Returns trunk to supine position, lowering head in extended position to platform; lowers legs in flexion to platform; extends right hand; shoulders remain turned slightly to the right; legs straight. Regards lure at right. (13.75 sec.)

SUPINE

13.75 seconds

8 phases

Normative Series

Age: 32 weeks

Child: G31

Seconds

- A 0.25 ¶ A lure is placed beyond reach at infant's right to induce activity. 0.25 Lies supine, head turned to the right; right arm flexed, forearm lifted slightly in lateral chest zone, hand open; left arm semi-extended and lifted in medial chest zone, hand closed; legs flexed and outwardly rotated, feet on platform; shoulders turned slightly to the right; pelvis straight.

- B 2.0 Extends neck, head rotated to the right; extends left arm across chest to lure at right, arm lifted 1 inch from platform; opens hand; rolls trunk to the right, rolling flexed left leg inward; lies on right side. 3.0 Lowers left hand to platform at right; lifts right leg 3 inches in flexion. 3.75 Brings head from extended position in line with trunk.

- C 4.25 Rotates head to the right, almost to midposition, face down; lifts right leg in obtuse flexion 5 inches above platform; lifts left hand 1 inch above platform at right.

- D 5.5 Lifts head 1 inch; lowers left hand to platform at right; lifts legs in extension 3 inches above platform, legs crossed, right heel resting on left ankle; rolls shoulders farther to the right. Weight now rests squarely on right side, right shoulder, and upper arm.



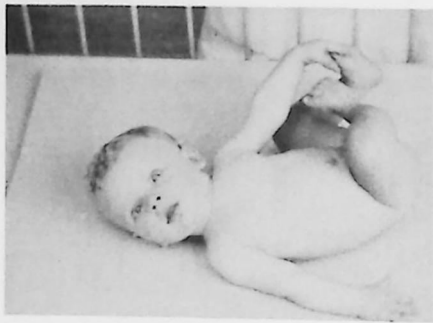
Seconds



- E 7.75 Flexes right leg acutely, lowering foot to a position 4 inches above platform; lowers flexed left leg to platform.



- F 8.25 Extends right knee, hip acutely flexed, lifting foot 8 inches above platform. 10.75 Flexes left leg acutely, lifting foot 5 inches. 11.5 Flexes right leg acutely, lowering foot to a position 4 inches above platform; opens left hand. 12.75 Releases right foot; moves left hand to left foot.



- G 13.25 Grasps and holds left foot with left hand.



- H 14.25 Releases left foot, lifting extended left arm in lateral shoulder-chest zone; hand open. 14.75 Extends left arm footward and medially; grasps right foot with left hand. (15.0 sec.)

SUPINE

15.0 seconds

8 phases

Normative Series

Age: 28 weeks

Child: B36

Seconds

- A* 0.25 ¶ Lies supine, head in midposition; right leg acutely flexed and outwardly rotated, knee over abdomen, foot lifted 4 inches; left leg obtusely flexed and outwardly rotated, knee over abdomen, foot lifted 7 inches; right arm extended on platform at side of trunk, hand open; left arm extended footward and medially, open hand resting on right foot; pelvis rolled to the left. (Legs when flexed are in abduction and outward rotation, and when extended are in adduction without rotation, unless otherwise stated.) Regards Examiner.
- B* 1.0 Turns head fully right; lifts right forearm in lateral abdominal zone; grasps and holds right foot in left hand; lifts flexed right leg to a position 5 inches above platform; extends left knee, hip acutely flexed, foot on platform in left lateral shoulder-chest zone. Regards surroundings.
- C* 2.75 Extends neck, head rotated to the right; extends right arm on platform at side of trunk; flexes right leg acutely, foot 4 inches above platform; lifts extended left leg 3 inches in left lateral shoulder-chest zone. 4.0 Flexes left leg acutely, lifting foot 4 inches above platform.
- D* 7.0 Extends right knee, hip acutely flexed, lifting foot 8 inches above platform.



Seconds



- E 9.0 Turns head to half right position; brings right hand to mouth; lowers semi-extended left arm to abdomen, scratching with left hand; flexes legs on platform, right leg rolled inward; swings pelvis to the left. 9.75 Extends head in half right position; closes right hand at mouth.



- F 10.25 Rolls to right side, legs flexed in outward rotation on platform. 13.75 Rolls left leg inward. 14.5 Turns head to extended right position; lifts flexed right leg 2 inches. 15.0 Extends right leg 2 inches above platform. 16.0 Opens right hand at mouth.



- G 18.0 Rolls to supine position, turning head to half left position; lifts forearms vertically, moving them in lateral shoulder-chest zone; flexes right leg, lowering foot to left ankle; rolls pelvis to the right. Regards Examiner. 20.25 Closes right hand.



- H 21.25 Lifts flexed left arm, moving it medially over chest; rolls pelvis to the left, rolling flexed right leg inward, flexed left leg outward; feet on platform. (22.75 sec.)

Seconds

- A* 0.25 ¶ Infant has rolled from supine position halfway to left side. 0.25 Lies with head and trunk turned half left; right arm extended footward, hand scratching right thigh; left arm flexed, forearm lifted vertically in lateral chest zone, hand closed; right leg acutely flexed and inwardly rotated, foot lifted 4 inches; left leg obtusely flexed and outwardly rotated, foot lifted 6 inches. (Legs when flexed are in abduction and outward rotation, and when extended are in adduction without rotation, unless otherwise stated.) Regards surroundings. 1.5 Turns head to midposition; opens left hand.
- B* 2.5 Rolls shoulders to midposition; lowers flexed legs to a position 3 inches above platform, right leg rolled inward, foot on left ankle. 3.25 Extends and lifts left arm in lateral chest zone.
- C* 4.25 Turns shoulders slightly left; extends left arm footward and medially, bringing left hand to right knee. 5.5 Rolls shoulders to midposition. 6.0 Turns head to half left position; lowers left hand to abdomen, arm semi-extended. 6.5 Turns head to midposition; lowers flexed legs to platform, right leg rolled inward, foot on left ankle.
- D* 7.25 Flexes both arms, lifting forearms vertically in lateral chest zone; straightens trunk, extending left leg 2 inches above platform. 8.0 Extends right leg 2 inches above platform.

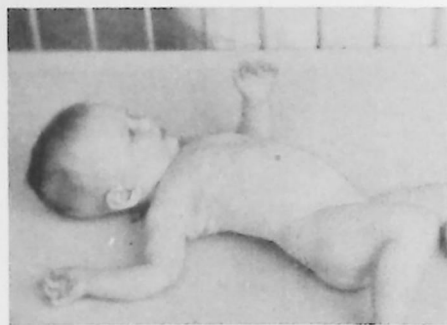
Seconds



- E 12.0 Rolls to supine position, flexing arms on platform, hand beside head; lies with head in midrotation, head and shoulders deviated to the left; pelvis deviated to the right (pivots clockwise through a small arc). 12.25 Rolls flexed right leg inward, foot on platform; lowers flexed left leg to platform; rolls pelvis to the left. 13.0 Flexes both legs acutely, lifting feet 3 inches. Regards Examiner.



- F 13.5 Turns head to half left position; lifts left forearm vertically in lateral shoulder-head zone; rolls pelvis to the right, lowering flexed right leg to platform.



- G 13.75 Rolls flexed right leg inward, foot on platform; lowers flexed left leg to platform; rolls pelvis to the left. 14.25 Rests left hand on abdomen, arm flexed; flexes legs acutely in outward rotation, lifting feet 3 inches; rolls pelvis to the right. 14.75 Fingers abdomen with left hand. 15.5 Rolls pelvis in line with axis of trunk. 16.0 Closes right hand.



- H 17.5 Turns head to midposition; lowers flexed legs to platform. 17.75 Flexes left leg acutely, lifting foot 3 inches. 18.0 Lowers flexed left leg to platform. (18.5 sec.)

SUPINE

18.5 seconds

8 phases

Normative Series

Age: 20 weeks

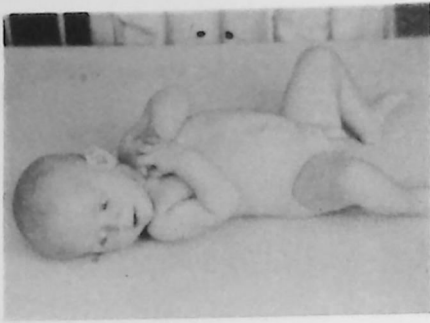
Child: G47

Seconds

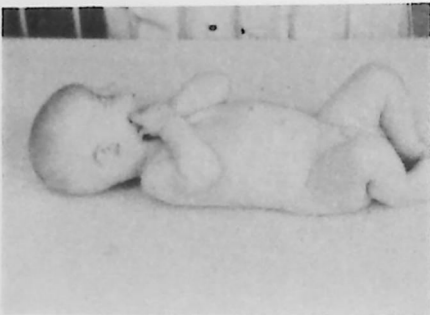
- A** 0.25 ¶ Lies supine in symmetric attitude; head in midposition; arms flexed, forearms lifted vertically in lateral chest zone, hands open; legs flexed, right leg rolled inward, foot lifted 1 inch, left leg rolled outward, foot lifted 3 inches; pelvis deviated to the right. Regards Examiner. (Legs when flexed are in abduction and outward rotation, and when extended are in adduction without rotation, unless otherwise stated.) 0.5 Rolls right leg outward, lifting foot 3 inches above platform. 1.0 Extends both legs on platform. 1.5 Flexes left leg, lifting foot 3 inches. 2.0 Flexes right leg, lifting foot 3 inches. 2.25 Lowers right leg in inward rotation to platform. 3.0 Lowers flexed left leg to platform. 3.25 Flexes legs acutely, lifting feet 3 inches.
- B** 4.0 Lowers flexed right arm to platform, hand beside head; rests left hand on abdomen, arm flexed; lowers flexed right leg in inward rotation to platform. 4.75 Fingers abdomen with left hand. 5.0 Extends left leg on platform. 5.75 Rolls flexed right leg outward. 7.25 Flexes right leg acutely, lifting foot 3 inches. 8.0 Lowers flexed right leg to platform. 9.0 Lifts left forearm vertically in lateral abdominal zone; rolls flexed right leg inward. 9.5 Flexes both legs acutely in outward rotation, lifting feet 4 inches; extends right arm forward, hand touching right knee; rests left hand on abdomen, arm flexed.
- C** 10.25 Turns head to half left position; moves flexed arms medially, bringing hands together over lower chest; rolls pelvis to the right. Regards surroundings.
- D** 11.0 Rolls head and trunk to the right and lies on right side; right arm extended laterally on platform, left arm lifted in extension in lateral shoulder-head zone; right leg flexed on platform, left leg flexed, foot lifted 3 inches above platform.



Seconds



E 15.5 Turns head fully right, turning shoulders to the right and straightening pelvis; lowers flexed right leg to platform, feet widely separated. Regards platform. 17.75 Brings feet together.



F 19.0 Turns head to half left position, straightening trunk; closes right hand on left. Regards Examiner. 19.5 Fingers left hand with right.



G 20.0 Turns head to midposition, swinging pelvis to the right; flexes right leg acutely, lifting foot 4 inches.



H 20.75 Turns head fully right, turning shoulders to the right and straightening pelvis; flexes left leg acutely, lifting foot 4 inches. Regards platform. (22.25 sec.)

SUPINE

22.25 seconds

8 phases

Normative Series

Age: 16 weeks

Child: B38

Seconds

- A** 0.25 ¶ Infant has rolled from supine position half-way to right side. 0.25 Lies in symmetric attitude; head and trunk turned half right; right arm flexed, forearm lifted vertically in lateral shoulder-chest zone, hand open; left arm flexed, closed hand on upper chest; legs acutely flexed and outwardly rotated, right leg lifted 1 inch, left leg 2 inches. (Legs when flexed are in abduction and outward rotation, and when extended are in adduction without rotation, unless otherwise stated.) Regards surroundings.
- B** 1.25 Rolls head and trunk to the right and lies on right side; right leg flexed on platform; left leg extended, foot on platform. Regards platform. 2.75 Brings right hand to mouth. 3.25 Flexes legs acutely, lifting feet 3 inches. 4.0 Rolls trunk to half right position. 4.75 Lowers legs in flexion, right foot on platform, left foot on right ankle. 5.75 Flexes legs acutely, lifting right foot 2 inches, left foot 4 inches. 7.0 Lowers legs to platform, rolling left leg inward. Regards surroundings. 7.25 Lifts right leg 1 inch; lifts left leg 4 inches, rolling leg outward.
- C** 8.0 Turns head to half right extended position; lowers flexed legs to platform; pelvis straight; shoulders turned toward the right. 10.0 Turns head to right extended position. 12.0 Extends right leg in abduction on platform.
- D** 14.0 Turns head to half left position, turning shoulders to the left and swinging pelvis to the right; brings hands together close to chest, clasping left hand with right; lifts left leg 2 inches in flexion. Regards Examiner. 14.5 Flexes right leg, lifting foot 2 inches; extends left leg 1 inch above platform. 14.75 Fingers left hand with right hand. 15.0 Turns head to half right position; straightens shoulders, pelvis remaining deviated to the right; lowers left leg in flexion to platform. Regards surroundings.

Seconds



- E 8.25 Flings both arms outward to lateral shoulder-chest zone, arms extended and lifted; closes hands. 8.75 Flexes right arm, forearm lifted vertically in lateral shoulder-chest zone; lowers flexed left leg to platform in internal rotation, straightening trunk. 9.0 Lifts flexed left leg 2 inches in internal rotation. 10.25 Flexes left arm, forearm lifted vertically in lateral shoulder-chest zone.



- F 10.5 Turns head to midposition, swinging shoulders toward the right and rolling pelvis toward the left; right leg flexed in internal rotation, left leg flexed in external rotation, feet on platform. 11.5 Opens right hand. 11.75 Turns head fully left and straightens trunk, extending both legs on platform. 12.25 Closes right hand.



- G 13.5 Regards left hand held lifted in lateral shoulder-head zone; flexes right arm, bringing hand to shoulder, thus approximating tonic-neck-reflex attitude. 15.25 Regards Examiner.



- H 15.75 Extends left arm headward on platform. (16.5 sec.)

SUPINE

16.5 seconds

8 phases

Normative Series

Age: 12 weeks

Child: G56

Seconds

- A 0.25 ¶ Lies supine, head turned to half left position; arms flexed, forearms lifted vertically and moved about in lateral shoulder-chest zone, hands fisted; legs flexed and outwardly rotated, right foot on platform, left foot lifted 1 inch; trunk straight. (Legs when flexed are in abduction and outward rotation, and when extended are in adduction without rotation, unless otherwise stated.) Regards Examiner. 1.25 Lowers left foot to platform. 2.5 Rolls flexed left leg inward.
- B 3.25 Turns head fully left; extends left arm laterally on platform. 4.5 Flexes right arm, bringing hand to shoulder and assuming tonic-neck-reflex attitude. 4.75 Rolls flexed left leg outward. 6.25 Flexes left arm, lifting forearm vertically in lateral shoulder-chest zone.
- C 6.5 Lifts right arm in semi-extension in lateral shoulder-chest zone; extends legs on platform; rolls trunk (shoulders and pelvis) slightly toward the left. 7.0 Lifts left arm in semi-extension in lateral shoulder-chest zone; opens hands. 7.25 Turns head to midposition, straightening shoulders and swinging pelvis to the right. Regards surroundings.
- D 7.75 Flexes arms, moving them medially, hands contacting very momentarily over chest. Regards Examiner. 8.0 Flexes left leg, lifting foot 1 inch.



SUPINE

20.75 seconds

8 phases

Seconds



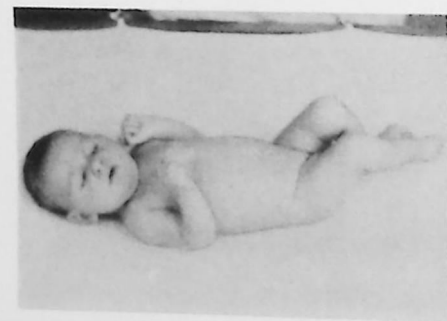
- E 10.75 Turns head to midposition; flexes right leg acutely, foot lifted 2 inches above platform; extends left leg on platform and straightens trunk. 11.5 Extends right leg on platform (kicks). 11.75 Begins to turn head to the right; flexes right arm, bringing hand to shoulder. 12.0 Flexes right leg acutely, lifting foot 2 inches; flexes left leg in internal rotation, lifting foot 4 inches; swings pelvis toward the left.



- F 12.75 Completes rotation of head to the right; extends both legs, right leg 2 inches above platform, left leg on platform (kicks). 14.0 Flexes right leg acutely, foot 2 inches above platform.



- G 15.5 Turns head to midposition; lifts right forearm vertically, moving it in lateral shoulder-chest zone; extends right leg on platform (kicks). 16.5 Flexes right leg acutely, lifting foot 2 inches. 17.0 Extends right leg on platform (kicks). 17.75 Turns head half right; flexes right arm, bringing hand to shoulder. 18.25 Flexes right leg acutely, lifting foot 2 inches; straightens trunk. 18.75 Closes eyes; extends right leg, lifting foot 4 inches above platform (kicks); flexes left leg in internal rotation 4 inches above platform; swings pelvis toward the left. 19.5 Flexes right leg acutely, foot 2 inches above platform; extends left leg on platform (kicks); straightens trunk. 19.75 Lifts both forearms vertically in lateral shoulder-chest zone; extends right leg on platform (kicks), swinging pelvis toward the left.



- H 20.25 Flexes left arm, bringing hand to shoulder; flexes left leg in internal rotation on platform. (20.75 sec.)

SUPINE

20.75 seconds

8 phases

Normative Series

Age: 8 weeks

Child: G56

Seconds

- A* 0.25 ¶ Lies supine in approximate tonic-neck-reflex attitude; head turned right; right arm flexed, forearm lifted vertically and moved about in lateral shoulder-chest zone; left arm flexed, hand at shoulder; both hands fisted; right leg extended 2 inches above platform; left leg flexed and outwardly rotated, heel on platform; pelvis deviated toward the left. (Legs when flexed are in abduction and outward rotation, and when extended are in adduction without rotation, unless otherwise stated.) Regards surroundings at right.
- B* 1.25 Flexes both legs in internal rotation, feet on platform; straightens trunk. 2.0 Rolls flexed right leg outward. 2.25 Lifts and extends right leg 2 inches above platform. 3.0 Extends right leg on platform (kicks); lifts left leg 1 inch in flexion and outward rotation. 4.5 Lowers flexed left leg to platform. 5.25 Flexes right leg acutely, lifting foot 2 inches. 5.75 Extends right leg on platform (kicks).
- C* 6.75 Turns head to half right position; flexes right leg acutely, lifting foot 2 inches. 7.5 Extends right leg 2 inches above platform (kicks); swings pelvis toward the left.
- D* 8.25 Turns head fully right; extends right arm laterally on platform; lifts right leg in flexion and internal rotation 3 inches above platform. 9.25 Rolls right leg outward; lifts flexed left leg 2 inches. 9.5 Flexes right arm, lifting forearm vertically and moving it about in lateral shoulder-chest zone; lowers flexed left leg to platform. 10.25 Extends right leg 3 inches above platform (kicks).



Seconds



- E 9.5 Immediately lowers right arm, extended laterally, to platform; lowers legs to platform, right leg flexed, left leg extended.



- F 11.0 Extends right arm headward on platform. 11.75 Shifts flexed left arm, bringing hand to shoulder; extends left leg on platform.



- G 12.5 Extends right arm laterally on platform. 14.0 Lifts extended right arm 1 inch in lateral shoulder zone. 14.25 Extends right arm headward; shifts flexed left arm, moving hand to occiput; flexes left foot 1 inch; swings pelvis toward the left. 15.0 Lowers left foot on right ankle. 15.5 Lifts extended right arm 1 inch in lateral shoulder zone. 16.25 Lowers right arm, extended laterally, to platform.



- H 18.25 Extends both legs, left foot on platform, right foot on left ankle. Half smiles (facial brightening). (21.0 sec.)

Seconds



E 4.75 Slowly moves extended right arm medially and footward, bringing it down over brow (slow component of windmill movement); extends left leg on platform. 6.25 Flexes left leg, foot on platform.



F 6.75 Lowers left arm, extended laterally, to platform; sweeps right arm over face.



G 7.75 As right arm reaches chest level, lifts extended left arm in lateral shoulder-chest zone; lifts flexed right leg in internal rotation 1 inch; rolls trunk (shoulders and pelvis) slightly to the left. 8.25 Extends legs, lifting right leg 2 inches above platform, left foot on platform; swings pelvis to the right (shoulders remain turned toward the left).



H 8.75 Flexes left arm on platform beside head; opens hand. 9.0 Closes left hand; flexes left leg in internal rotation, foot lifted 1 inch above platform. (9.25 sec.)

SUPINE

9.25 seconds

8 phases

Normative Series

Age: 4 weeks

Child: G60

Seconds

- A 0.25 ¶ Lies supine in tonic-neck-reflex attitude; head turned left; right arm flexed on chest; left arm extended and slightly lifted at side of trunk, hands fisted; legs flexed and outwardly rotated, feet on platform; pelvis deviated to the right. (Legs when flexed are in abduction and outward rotation, and when extended are in adduction without rotation, unless otherwise stated.) Regards surroundings at left. 1.25 Lowers extended left arm to platform in trochanteric position at side of trunk.

- B 1.75 Turns head to half left position; flexes left leg acutely, lifting foot 2 inches. 2.25 Turns head fully left.

- C 3.5 Turns head to half left position; lowers flexed left leg to platform; rolls flexed right leg inward, straightening trunk.

- D 4.0 Lifts and extends right arm headward (quick component of windmill movement); lifts and moves extended left arm in lateral shoulder-chest zone; rolls flexed right leg outward, swinging pelvis to the right. 4.25 Turns head fully left.

DELINEATIONS
OF
BEHAVIOR PATTERNS
AND
PATTERN PHASES

IX

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B. *The Yale Films of Child Development*.

These films will be published in cooperation with Erpi Picture Consultants, Incorporated, of New York. The editorial organization of the films will be spread over a period of years and will follow the course of underlying researches. The films are to be made available in units of varying length and in sequences.

The films are based on the archive records of the Photographic Research Library of the Clinic and fall into four general series or groups.

1. *The Normative Films* depict characteristic behavior of normatively selected infants in 24 different behavior situations. Individual reels provide a compact summary of developmental stages from 4 weeks through 56 weeks. A special series will systematically depict the mental growth of one child from 4 weeks through 4 years of age. These films will have close association with printed publications.

2. *The Naturalistic Films* depict the everyday life of the infant and delineate typical behavior days at varying age levels. The naturalistic records aim to give a more free rendering of the personal and social features of the infant's development. These records were systematically made and are complementary and supplementary to the normative records.

3. *The Pediatric Films* are concerned with the problems of child care and particularly with the nutrition of the infant. The behavior aspects of the infant's feeding will be delineated in technical detail for medical and nursing groups. Clinical studies of special defects, handicaps, and abnormal deviations will be made available to physicians and medical students.

4. *Special Studies and Demonstrations*. These films will illustrate the findings of special experimental and genetic studies. They will also portray the techniques of photographic research in a manner similar to the sound film entitled, *The Study of Infant Behavior*. This sound film, produced in 1930, outlines the investigatory procedures and guidance work of the Yale Clinic of Child Development.

(2) The group of photographs which delineates an entire behavior episode (in the normative series, 4 and 8, in the naturalistic series from 2 to 20 photographs for each episode). (3) The developmental series, which in age sequence depict part or all of the growth cycle for the first year of life.

When the episode delineations are collated on a biographic basis they portray more or less completely the span of development of a single individual. In the normative volume there is a wide range of renderings of Girl N 48, who was normatively so typical that her cinema records were used in a large proportion of the delineations. In the naturalistic volume the delineative material is more evenly distributed biographically among six subjects. Varied collations of this material will emphasize either biogenetic continuities or individual differences in behavior characteristics.

The loose leaf format has been adopted in order to facilitate different kinds of collation suitable to the reader's special interests. The steel spring type of binder makes it conveniently possible to break down the volume and to assemble the individual leaves in any desired sequence. Although no effort will be made to define these varied possibilities, they may be profitably illustrated by one or two examples.

Let us assume that the reader is especially interested in the growth of the patterns of sitting posture. He may extract from the normative volume 22 leaves which delineate such posture from 4 weeks through 56 weeks of age. When these leaves are arranged thatchwise, overlapping like shingles, they may be laid in linear arrangement on a long table or even on the floor. In full array they would extend over about 20 feet. But in such array whether in a single row or in four or five parallel rows on a table, they afford a very effective overview of the total gamut of development.

The stages of progression can be expeditiously inspected by serial comparisons which proceed from one age to the next succeeding age level, with pauses for retrospective examination of the antecedent age levels. By this kind of exploratory inspection the reader secures a panoramic view which he could not obtain even through the cinema. But the cinema renderings of the same data will supplement and vivify what he discovers by analysis of the pattern phase pictures.

It is significant that when such inspection of material is put to test, genetic observations and inferences can be made. When the sitting pictures are seen in intimate sequence such items as head lag, head rotation, posture of arms, participation of the Examiner's hands, extension and flexion of the legs, torsion of the shoulders, etc., take on a new developmental meaning. It becomes evident for example that at the early stages retraction

of the head occurs before rotation of the head; that rotation of the head occurs before rotation of the shoulders; that rotation of the shoulders occurs before rotation of the pelvis; that rotation of the pelvis does not accomplish pivoting until there is a supplementary command of the legs to accomplish shifting of position. Even if some of these behavior items have been recognized at individual ages their true significance is not sensed until they are seen in developmental context and sequence.

These principles which have been illustrated for sitting behavior hold true for almost any situation which might be selected for study. The loose leaf arrangement permits not only special inspection in longitudinal sequence but makes possible a codification of the materials transversely in relation to age level. Materials illustrative of one given age level may be extracted from numerous behavior situations and these delineations may be brought into comparative juxtaposition by thatchwise arrangement of the loose leaves as suggested in the longitudinal seriation.

But should the student be interested in some restricted behavior item like smiling, frowning, or head aversion, he may glean from either of the volumes examples of this particular bit of behavior and bring these examples into comparative juxtaposition for closer study. We have established a standard pagination for the leaves when they lie at rest in the closed volumes, but since the leaves are rearrangeable, it is assumed that they may be manipulated into many different permutations for genetic study. For certain purposes even the naturalistic and normative leaves, though ordinarily independent, may be brought into constructive comparison. The pagination is consecutive for both volumes that the reader can always restore the leaves to their standard seriation.

Finally the Atlas may also be used in a selective manner as a key to the study of the cinema reels when the latter are available. It is not assumed that the Atlas pictures in themselves can create the illusion of motion; but they can sharpen the perception and deepen the comprehension of motion. With the aid of the text and pictures it becomes possible to mentally reconstruct the infant's behavior, before it appears in motion on the screen, or on the projection desk. Maximum results can be secured by conjoint use of the Atlas and the film. It has been repeatedly demonstrated in our experience that no one method supplants another. A study of the stilled pattern phases will improve observation of the fluent motion and the interpretation of the stilled phases will in turn be reinforced by observing the behavior in full flow. For purposes of teaching and of individual study we therefore recommend such combinations in method of approach as being the most ideal.

sufficiently concrete and sufficiently graduated to be applied as standards of reference.

In the field of clinical neurology the delineative norms can be put to considerable use. When brought into analytic comparison with defective and disordered behavior patterns the norms will serve to define the amount and the character of the deviation from the normal. Such definition is especially important in the period of infancy when so many of the clinical neuro-motor expressions of disease and of injury lie so completely outside the pale of classic syndromes. Moreover, it is desirable that these expressions should be construed not only in terms of neurological function but also in terms of behavior growth, or of developmental maturity.

Perhaps we may hope that the Atlas will occasionally be put to uses for which it was not planned. The infants have been depicted in the nude and therefore give at least incidental token of interesting anthropometric characteristics. Both in the normative and naturalistic situations the infants have been given freedom to display a vast array of postural attitudes. Some of these attitudes must have import if not charm from the standpoint of sculpture and of the graphic arts. The art student who limits his observation to adult anatomy and adult kinesiology will miss distinctive aesthetic problems and opportunities which are peculiar to the first year of human life.

The Atlas is offered as a *systematic collection of specimens of infant behavior patterns*. In format, arrangements, and mechanical make-up both volumes are designed to make this collection useful for conducting both analytic and comparative studies. Interpretive comment is withheld and the course of the behavior alone is described.

In the normative volume the printed text is kept on a level of pure description without any effort at emphasis or inflection. The standard arrangement for the normative page is four pictures in vertical alignment with text in close juxtaposition at the right. This page arrangement was decided after careful preliminary experimentation to be the most convenient and efficacious. In the great majority of instances eight pictures, or two pages, are used to delineate a single episode. These pages are booked so that they lie opposite to each other when the volume is open, thus furnishing one panoramic view of the entire sequence of behavior in the given situation. In this arrangement the mechanism of behavior is treated in detail and the reader may feel confident that the total flow of behavior has been covered by the text without editorial suppression or deletions. In these renderings it has been our purpose to exhibit the specimens of behavior in their full integrity beginning with a zero point when the stimulus object is presented and ending at a moment which marks

conveniently the conclusion of a given behavior sequence.*

In some of the normative behavior situations eight, or exceptionally twelve, pictures are assembled on a single page. In these instances the letter text is less complete for the mechanical details of behavior. The description has been condensed to a minor degree in order to furnish a more succinct and fluent narration of the total flow of behavior. In these instances the original stenographic account as well as the cinema film itself has been reviewed in drawing up the description.

In the naturalistic volume the textual treatment has been of similar character but more brief and informal. Time values for the individual chrono-photographs have however been supplied wherever they have pertinence for the envisagement of the behavior episode. In both volumes interpretive language has been kept to a minimum because it has been our consistent aim to depict the behavior specimens in full objectivity, leaving the task of interpretation with its variable hazards to the reader himself.

From the standpoint of time or duration the action photographs of the Atlas subdivide into three ascending classifications: (1) The individual photograph which pictures the behavior pattern phase of a single moment.

** Typographic Conventions used in the Atlas*

In affixing time values to the individual photographs the following conventions were adopted:

The zero point (0.0) was placed as marking the beginning of the presentation. The end of the presentation of the material was always reckoned as a lapse of 2 seconds, at the moment when the Examiner's hand released the object. When the presentation itself is not shown the beginning of the depicted situation is considered as occurring at an interval of 2 seconds.

When there is an insignificant break in the cinema record it is indicated by two punctuation periods, .. When there has been a longer break in the continuity of the material this fact is indicated by three periods, ... Omission of a part of the situation, for example the first two demonstrations in a series of three demonstrations, is also indicated by three periods, ... The demonstration which is pictured is always specified (in italics).

In the postural situations the action of all members of the body is described in a single sentence. Behavior of like members is separated by a comma; behavior of different members by a semicolon. Regard is described separately in connection with head rotation.

In the table-top situations the series of actions by one hand is separated by a semicolon; the activity of each hand is described in separate sentences unless the action is simultaneously by both hands. Regard is described separately or in connection with head rotation.

In the naturalistic volume, times of the day, as well as time values of pattern phases, are given. When a behavior episode is depicted, the immediately antecedent circumstances and behavior are frequently summarized. The beginning of the description of the episode itself is signaled by a paragraph sign (¶).

ceremony slipped the block into the round hole. Again spontaneous behavior in relation to the inserted block was noted. If in his efforts to insert the block the form-board tended to slide out of position, the examiner anchored it with his own hands.

23. *Ball play.* The examiner removed the table top and with playful social approach initiated the game of ball play. The infant was placed with his back against the head end of the crib in sitting position, legs spread somewhat apart. Then with running comment the examiner took position at the foot end of the crib and rolled the ball slowly toward the infant. If the child secured the ball, the examiner encouraged him to return it, stretching out a receiving hand across the end of the crib, beckoning the infant to roll the ball in that direction. If the infant persisted in holding the ball, the examiner gently removed it or caused it to roll out of the infant's hand in a manner suggesting responsive release. The game was then reinstated two or three times.

24. *Mirror.* At the conclusion of the ball play the examiner placed the infant squarely in front of the curtain which concealed the mirror at the end of the crib. While the infant was looking toward the curtain, the examiner raised the curtain with a moderately decisive maneuver, lending support to the child if he tended to lose his sitting balance. In this situation the infant was given full postural freedom and permitted to stand if he desired.

VIII

PLAN AND USES OF THE ATLAS. The Atlas has been organized to give a balanced conspectus of the growth of behavior in the first year of life. It does this by delineating behavior patterns both on a normative and on a naturalistic basis. The normative records were systematized by preserving a high degree of laboratory uniformity and control in the experimental behavior situations. The naturalistic records were systematized by charting the infant's behavior day in terms of his domestic routine and under comparable household conditions. All phases of the infant's activity were reported, including posture, locomotion and prehension, and adaptive and social behavior.

The behavior records have been codified in terms of the basic behavior situations rather than in terms of functional categories. This seems to us the soundest method, scientifically, for organizing the complex data. To have classified the data into functional categories like curiosity, eagerness, insight, sociability, memory, constructiveness, perseverance, distractibility, etc., would have opened too many hazards of interpretation. Moreover it is desirable to depict the child in his totality and

to view the behavior in its full context and not in the light of some abstract and perhaps untenable category. Social behavior, for example, may be sought in numerous situations, such as the postural and bath situations, which have no intentional or ostensible social content. Contrariwise, interesting postural adjustments may be sought and found in highly personal situations such as social play or spoon feeding. If one were to study postural mechanisms and abilities, a wide range of Atlas pictures could be used for the purpose, not only those which deal normatively with posture and locomotion but numerous situations depicted in the naturalistic volume. In its plan of organization the Atlas places a premium upon such utilization of the materials.

The minuteness with which the contents may be studied varies within wide limits. Since one purpose of the Atlas is to vivify genetic perspective, the material has been arranged to facilitate a longitudinal examination of the patterns both in age sequences and in biographic sequences. Even when such longitudinal examination is made somewhat hastily and superficially, certain outstanding trends of development assert themselves. Indeed a rapid, serial inspection is to be encouraged when it discloses trends which would be missed by a laboring preoccupation with details. Here as elsewhere forest, trees, and even twigs and underbrush compete for recognition, and one must school himself to reconnoiter in a roving manner as well as to plod point by point. The student who is seriously concerned with some special problem can, of course, use both methods of approach to advantage. Passively viewed the pictures will not instruct. The student must bring active analysis to bear upon them.

The Atlas in its present form is designed to be self-contained; but it may also be used in association with monographs and other publications which discuss the fields of developmental study in greater fullness. No effort will here be made to detail these possibilities which will naturally vary with the special interests of student and investigator. Moreover it is hoped that the Atlas will suggest new fields for genetic study as well as define data already published.

Although our guiding concern has been the elucidation of genetic problems the Atlas in its present form should prove serviceable in the practical fields of developmental and of neurological diagnosis. The behavior patterns as depicted represent a normative population, and may be used within judicious limits as criteria for the appraisal and the description of behavior patterns observed both in normal and abnormal children. Like all diagnostic indices the behavior norms can be safely used only when supplemented with clinical experience and interpretive caution; but they are

13. *Cup and spoon.* Holding the upturned cup in his left hand and the spoon in his right hand, the examiner simultaneously advanced both in parallel lanes and placed them on the transverse standard line. After appropriate observation, cup and spoon were removed from the infant's grasp and the examiner then placed the cup in the far median position, thrust the spoon perpendicularly into the cup, bringing it against the sides with a to-and-fro motion producing a well defined rattling sound. The examiner then re-presented both objects in the standard manner and observed the responsive behavior. Similarly a second demonstration and a third demonstration of the spoon rattle followed.

14. *Cup and cubes.* In the standard manner the examiner simultaneously presented the cup and the ten cubes used in the massed cube situation. These cubes were placed in an irregular cluster at the infant's right near the near median position.

15. *Pellet.* Grasping the pellet between the index finger and the thumb and holding the convexity down, the examiner advanced the pellet in the horizontal plane and placed it in the standard median position. If after 10 seconds the infant had not seized the pellet, the examiner advanced it to the near median position. If necessary the presentation was repeated.

16. *Pellet and bottle.* With the bottle in the left hand and pellet in the right, the examiner brought both objects into the infant's plane of vision above the transverse standard line. The examiner dropped the pellet into the bottle while the infant was looking and then proffered the bottle to the infant or placed it in the near median position. After appropriate observation, the examiner placed the bottle to the left of the standard median position and the pellet beside it at the right.

17. *Bell.* The examiner presented the bell in the standard manner, placing it in the standard median position and when necessary in the near median position. After appropriate observation the examiner demonstrated bell ringing. He seized the bell with overhead grasp, waved it up and down three or four times and then placed it in the near median position. After an appropriate interval of observation, he repeated the demonstration a second and a third time.

18. *Ring and string.* Seizing the ring between index finger and thumb of the left hand at a point opposite the string attachment, and plucking the distal end of the string with the right, the examiner held both tautly in the horizontal plane and advanced them to the standard position on the table top. He laid the ring just beyond the standard median position, and the string in oblique alignment just within scope of the infant's right reach. Two or three presentations were made in this manner to elicit characteristic behavior. If after the third

presentation the string was not secured, it was re-presented and laid in vertical alignment along the median line with the end slightly in advance of the standard median position.

19. *Ring, string, and bell.* This time holding the ring between medius and index finger of the left hand and holding the bell between index finger and thumb of the same hand, the examiner presented with one maneuver the ring, string and bell. He then rang the bell briefly and replaced it within the ring.

20. *Paper and crayon.* Holding the farthest edge of a sheet of paper $8\frac{1}{2} \times 11$ inches, in the left hand, and holding the crayon in the right hand, the examiner placed both objects simultaneously on the table top in parallel alignment with the median line. The near edge of the paper was placed at and along the near edge of the table top. The point of the crayon was directed away from the infant. After observation of the infant's spontaneous behavior, the examiner initiated a demonstration of scribbling. The sheet of paper was placed with its farther margin at and parallel to the farther margin of the table top. The examiner took the crayon in the right hand and applied it obliquely to the paper, making back and forth strokes near its farther margin. He then immediately re-presented this sheet of paper and the crayon to the infant as before. This scribble demonstration was repeated a second and a third time.

21. *Performance box.* Holding the performance box by the handle, the examiner placed the box with its lower edge parallel to the transverse standard line. After appropriate observation of the reactions to the box, the examiner took the rod in the left hand and proffered it in oblique alignment to the infant. Spontaneous behavior with the rod was then observed. While the infant was holding the rod the examiner pointed with the right index finger to the center hole of the performance box, saying, "Put it in there." The examiner made a tapping gesture toward the hole. If the infant retained the rod without inserting it, the examiner removed the rod and himself inserted it deliberately into the round hole of the performance box. The rod fell with audible report within the box. The examiner removed the rod and proffered it to the infant as before. Three consecutive demonstrations were made in this manner.

22. *Formboard.* Holding the board in the horizontal plane with the circular opening to the infant's right, the examiner placed the board on the table top in the near median zone. After appropriate observation of the reactions to the board, the examiner presented the round block in the standard manner, advancing it edgewise toward the infant. Spontaneous behavior with the board and block was observed. The examiner then removed the block from the infant's grasp and without delay or

The same lure was used to determine the infant's capacity to lower himself from the standing to the sitting position. In the sitting position the examiner attempted to induce independent assumption of the erect posture. If the child stood effectively with support the examiner assisted him to release hold of the side rails, confronting him at the distant end of the crib and eliciting stepping or walking movements, lending support as far as necessary.

B. SUPINE SITUATIONS. 6. *Dangling Ring*. The infant lay in the supine position. The examiner with circuitous approach brought the dangling ring above the infant's lower chest. If no positive response occurred, the examiner moved the ring into a line of vision, right or left depending upon head position. The ring was then bobbed gently in the visual fixation field. When the infant fixated, the examiner moved the ring slowly through an arc of 180°. In a similar manner starting at the infant's eye level, the examiner advanced the ring in the median plane beyond the infant's head and then in the opposite direction toward the infant's toes to elicit visual pursuit. At the 12 weeks age level the ring was held above the sternum for a long period to elicit incipient or delayed response. If the infant did not contact the ring, it was moved toward his left hand to facilitate grasp. If grasp did not occur the examiner inserted the ring into the infant's palm.

7. *Rattle*. In a similar way the rattle was first presented in the median plane and brought to rest above the lower chest. If the infant fixated on the rattle it was held there for 5 additional seconds. If not, the examiner gently activated the rattle (by twirling the handle between index finger and thumb). If the infant did not then regard the rattle it was brought into the visual field, right or left, depending on head position. When visual regard was secured the examiner immobilized the rattle and held it so for 5 seconds. The examiner then moved the rattle toward the extended hand, touching the digits. He inserted the rattle handle into this hand if open or he pried the fingers back to effect insertion. Having observed the infant's responses after grasping, the examiner took the rattle again and moved it slowly toward the occiput hand (repeating the procedure just described). These particular maneuvers were limited to infants who were in the tonic-neck-reflex postural attitude with "face hand" in extension.

At 12 weeks and at subsequent age levels, the examiner held the rattle above the sternum, for some time if necessary, to elicit delayed spontaneous grasp. If grasp did not ensue he moved the rattle within a few inches of the left hand to evoke grasp. If grasp did not occur he inserted the rattle into the hand to observe the subsequent manipulation for approximately 3 minutes.

C. SITTING OR TABLE-TOP SITUATIONS. 8. *Consecutive Cubes*. Stationed at the left rear corner of the crib, the examiner took the cubes from the container bag and transferred them to his smock pocket. Then he took a single cube and brought it circuitously below the farther margin of the table-top. Holding it in the horizontal plane just above the table level, he slowly advanced the cube toward the infant. At the earlier age levels it was sometimes necessary to tap the cube against the table edge to elicit the infant's visual fixation. Using approximately 2 seconds to advance the cube from the far edge of the table-top, the examiner placed the cube in the standard median position. He left the cube in this position for 9 seconds if the child did not contact it and then on the 10th second advanced the cube to the near median position, leaving it there for 10 seconds if the child did not contact it. At the conclusion of the observation of the reactions to the first cube, the examiner placed the cube in the infant's left hand unless the infant had already spontaneously grasped the cube with the left hand. The examiner then presented the second cube in the manner already described. After appropriate observation a cube was placed in either hand of the infant and the examiner presented a third cube.

9. *Massed cubes*. Using a cardboard screen to conceal the maneuver, the examiner assembled nine cubes into a solid square and placed the tenth on the middle cube. With moderate dispatch the examiner advanced both the screen and the cubes toward the infant, and withdrew the screen when the massed cubes were in the standard median position. If the infant did not contact the cubes after a period of 10 seconds, the examiner advanced them to the near median position.

10. *Tower building*. At the conclusion of the massed cube situation, the examiner removed all but four cubes. With moderately rapid maneuver he built a demonstration tower of two blocks near the farther margin of the table, securing the infant's visual attention to the demonstration. The examiner then placed the third cube in the near median position and proffered the fourth cube to the infant. The examiner attempted to secure responsive behavior by gesture, comment, and repeated building of the demonstration tower either in the far median position or in the standard median position.

11. *Cup*. The examiner presented the inverted cup with the handle pointing toward the child, placing the cup in the standard median position and if necessary in the near median position, in accordance with general procedure.

12. *Spoon*. Holding the handle horizontally directed toward the infant, the examiner presented the spoon and placed it in the standard position, after the manner of presentation described for the first cube.

patterns. Other objects were presented consecutively or in combination to introduce spatial relationships and topographical problems, eliciting combining and other responses. The relationship of container and contained is represented by the cup and cubes, pellet and bottle, formboard and block, performance box and rod. The clapper and bell elicited in numerous ways the adaptive and exploitive capacities of the infant.

These comments are merely suggestive and indicate only partially all the stimulus factors in the various behavior situations. It is clear, however, that from the standpoint of geometry and physics the test materials were sufficiently diversified to release a wide range of potentialities in the child's discriminative and adaptive behavior. These potentialities are visibly expressed in patterns of behavior recorded by the camera. At each age level and for each behavior situation we have chosen from the basic cinema films those records which appear to us illustrative and typical from the standpoint of systematic delineation.

VII

THE NORMATIVE BEHAVIOR SITUATIONS (Depicted in Volume I). The following outline is a summary of the procedures used in the normative examination of infants. For a more complete and technical account of the procedures used the reader must consult the printed volumes which report the normative investigation *in extenso*. The behavior situations are informally described in the past tense but with sufficient detail to orient the reader. The behavior situations are treated in the order in which they appear in the Atlas. At the younger age levels this was also the order of the examination. Subsequent to 16 weeks the postural and locomotor situations were ordinarily concentrated at the conclusion of the developmental examination.

A. POSTURE AND LOCOMOTION. 1. *Supine*. The mother or examiner placed the infant on his back parallel to the platform of the examining crib. In accordance with the procedure which was uniform for most of the situations, the examiner took a place inconspicuously at the rear left corner of the crib, and observed the course of the infant's spontaneous behavior for a period of from two to three minutes. No further stimulus was supplied except a toy lure to induce postural reorientation.

2. *Prone*. The examiner held the infant in ventral suspension and then slowly lowered him to the prone position, adjusting the infant's arms and head in the process. The examiner then dangled small cat bells in front of the infant to secure visual fixation and to induce head lifting. The same bells were then moved on the platform as a lure to elicit reaching and pivoting in clockwise and counter-clockwise directions.

At the older age levels the infants were given an opportunity to reveal postural reorientation from prone to sitting position and from sitting to prone position. The lure was again used to elicit crawling or creeping behavior and induce rolling from supine to prone position.

3. *Stair climbing*. With the movable staircase in position the examiner lifted the infant and placed his feet in front of the first tread. The child was permitted to bend forward to rest his hands on the second tread. Lending support when necessary, the examiner placed a lure of bells, rattle, or ring on the second or the third tread to induce climbing.

4. *Sitting*. The younger infants were placed athwart the crib in the supine position. The examiner confronted the child and after establishing rapport took hold of the infant's hands and arms (as described in detail elsewhere) and, exerting cautious, gradual traction, pulled the child slowly to the sitting position. This maneuver was modified in accordance with the age and the motor capacities of the infant. When the infant was in the sitting position the examiner, using left hand to support and right hand against the thorax to steady the infant, observed his sitting balance. The examiner next rotated the position of the infant so that the infant's feet confronted the foot of the crib. The examiner then partially or completely withdrew his supporting hands to determine the possibility of momentary passive sitting. Older infants who showed adequate independent sitting control were permitted to sit on the platform of the crib during the course of table-top situations later described. All infants without adequate or complete independent sitting control were placed in the examining chair for all or part of the examination. This examination chair carried a broad canvas belt which was secured across the infant's chest and abdomen. Very young infants were for brief periods kept in the examining chair with the support of a special bandage which encircled the trunk. When the infant was sitting independently, the examiner retreated partially out of view and placed the lure on the left or right to induce clockwise or counter-clockwise pivoting.

5. *Standing and walking*. Placing a hand on either side of the thorax the examiner lifted the infant to a standing position and supported him with hands under the axillae. The infant confronted the examiner. The examiner then gradually released this support, allowing the soles of the infant's feet to contact and then to press the platform. If the infant supported his full weight, the examiner cautiously withdrew support to determine control of balance. For further determinations, the infant was permitted to seize the side rail with one hand. If the postural control was adequate, the child was permitted to grasp the rail with two hands. The examiner used a lure to elicit cruising either to the right or left.

VI

A NORMATIVE INVESTIGATION OF INFANT BEHAVIOR GROWTH. This Atlas is based upon a normative investigation of the growth of infant behavior patterns. For the details of this investigation the reader must be referred to associated volumes listed in the bibliography. The general concepts underlying the program of investigation have already been outlined. The procedures were similar to those employed in a preliminary survey of behavior development made in 1919, and reported in a volume on *The Mental Growth of the Preschool Child*. In 1927 a coordinated program of normative research was projected in order to refine and elaborate these norms of preschool development. This program concentrated on the first year of life. In order to strengthen the normative values of the data a homogeneous group of infants was carefully selected for the investigation. All told, 107 children were included in the survey. From 26 to 48 children were developmentally examined at each of 15 age levels, with a total of 524 examinations. To strengthen the homogeneity of the group only infants were included whose parents were of middle socio-economic status with respect to occupation, schooling, avocational interests, and home equipment. The fathers' occupations fell within the 4.98 and 11.74 range of values listed on the Barr scale of occupational intelligence. These parents were born in the United States and their grandparents were of northern European extraction. All of the infants were well at the time of the examination and were born after a full term gestation. Scrupulous regard was paid to the age factor, and with only very rare exceptions each child was examined within two days of the exact age by the lunar month calendar.

Some cinema record was made of 77 per cent of all the children examined and one-third of the total array of examinations were supported by full cinema records. These records were made in the photographic observation dome pictured and described elsewhere in more detail. The developmental examinations of children 4 and 6 weeks of age were made at home. All other infants were observed in the photographic dome or in examination rooms equipped with one-way-vision screen which reduced environmental distractions to a minimum.

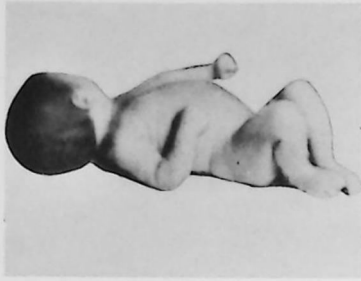
The clinical crib which was used for photographic records at all ages is pictured in accompanying illustrations. The platform of the crib, raised 30 inches from the floor level, was used for the observation of postural behavior. This platform was covered with a blotter or sanitary pad. The panels of the crib supported a "table-top" which was used for all the sedentary examination situations. When the infant required support in the sitting position at 12 weeks and at later age levels he was

placed in a small chair of morris type, secured by a supportive band. The sitting infant confronted the table-top on which test materials were presented in accordance with carefully defined procedures. For the details of these procedures the reader must again be referred to the printed volumes.

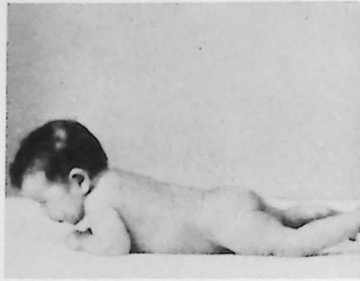
Twenty-four different behavior situations were included in the normative survey. All of these are pictured in the normative volume of the Atlas in the following order:

- A. *Posture and Locomotion*
(Normative Crib Situations)
 1. Supine behavior (4 weeks—40 weeks)
 2. Prone behavior (4 weeks—56 weeks)
 3. Stair climbing (40 weeks—56 weeks)
 4. Sitting (4 weeks—52 weeks)
 5. Standing and walking (4 weeks—60 weeks)
- B. *Early Perception and Prehension*
(Supine Situations)
 6. Dangling ring (4 weeks—28 weeks)
 7. Rattle (4 weeks—28 weeks)
- C. *Perceptual, Prehensory, and Adaptive Behavior*
(Sitting Situations)
 8. Consecutive Cubes (12 weeks—56 weeks)
 9. Massed Cubes (16 weeks—60 weeks)
 10. Tower Building (44 weeks—60 weeks)
 11. Cup (12 weeks—36 weeks)
 12. Spoon (16 weeks—36 weeks)
 13. Cup and Spoon (32 weeks—56 weeks)
 14. Cup and Cubes (32 weeks—56 weeks)
 15. Pellet (12 weeks—56 weeks)
 16. Pellet and Bottle (32 weeks—56 weeks)
 17. Bell (16 weeks—56 weeks)
 18. Ring and String (28 weeks—56 weeks)
 19. Ring, String, and Bell (32 weeks—56 weeks)
 20. Paper and Crayon (36 weeks—56 weeks)
 21. Performance Box (40 weeks—56 weeks)
 22. Form Board (20 weeks—56 weeks)
 23. Ball Play (40 weeks—56 weeks)
 24. Mirror (40 weeks—56 weeks)

It will be noted from this schedule that the stimulus objects have a simple, homely aspect rather than a technical one. Our early experience with these simple materials had convinced us that they had advantages which materials of a more artificial character might not possess. These materials have proved congenial to the infant's interests. They represent a wide diversity and range of stimulus values. They are of many sizes, ranging from the tiny 7 mm. pellet to the massive performance box approximately $40 \times 20 \times 20$ cm. The consistencies of the materials range from the hard unyielding surface of the table-top to the pliancy of the string and paper. Some objects were presented singly to define more restrictively the configuration of characteristic behavior



4 weeks



6 weeks



8 weeks



12 weeks



12 weeks



16 weeks



20 weeks



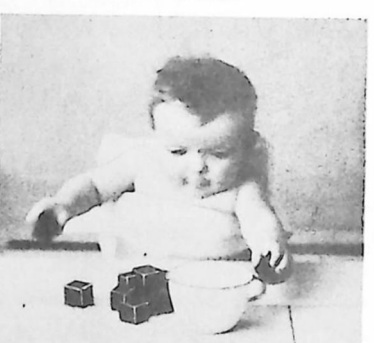
24 weeks



28 weeks



32 weeks



36 weeks



40 weeks



44 weeks



48 weeks



52 weeks



56 weeks



60 weeks



80 weeks



2 years



3 years

NAME Robinson, Evelyn ^{Boy} _{Girl} SITUATION 2^d cube AGE 24 Wks
 Last First
 FILM NO. 381 FILE NO. X117 SERIES Normative C DATE 8/24/ BY GH

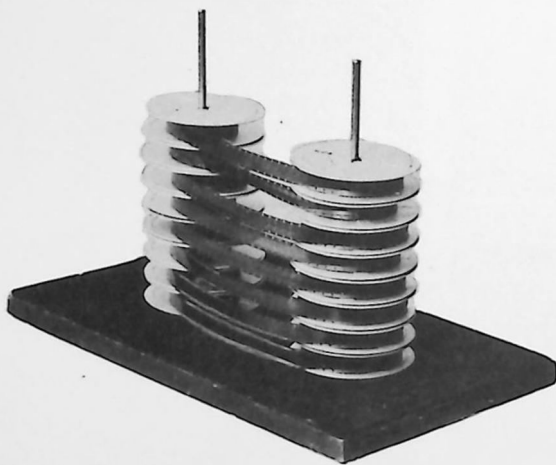
NOTATION	BEHAVIOR SEQUENCE	FEATURES	REQD	SECONDS
SMP	Holds 1st cu in BH, regards	Leans forward.		
Phase 1	2nd cu, releases R grasp on 1st cu, approaches RH to 2nd cu, brings 1st cu on TT with LH	lowers head, RVC loop 1.5" contact- R index vs cu 2"	2nd cu	0-2
Phase 2	Approaches LH, drops cu from LH, conals 2nd cu with BH	LVC loop, leans R	" "	2-2.5
	Withdraws LH, grasps R	*1st grasp RH 3.5" ulnar	1st cu	2.5-3
	Drags 2nd cu back and to R with RH, releases from grasp 7" R, LH on TT M,	Rotates 20° R, turns head 40° R	2nd cu	3.5-5
Phase 3	fs. partially flexed			
Phase 4	Strikes cu L with RH	RVC sl., LVC loop	" "	5.5-8



Cinema strip showing individual frames.



Film tray for assembling individual reels.



Double spindle rack for give-and-take reels.

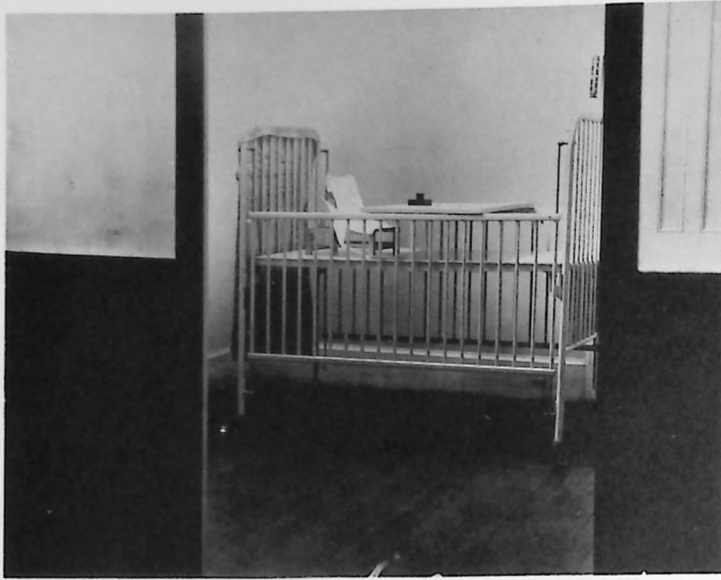
Partial record of a behavior pattern analysis.



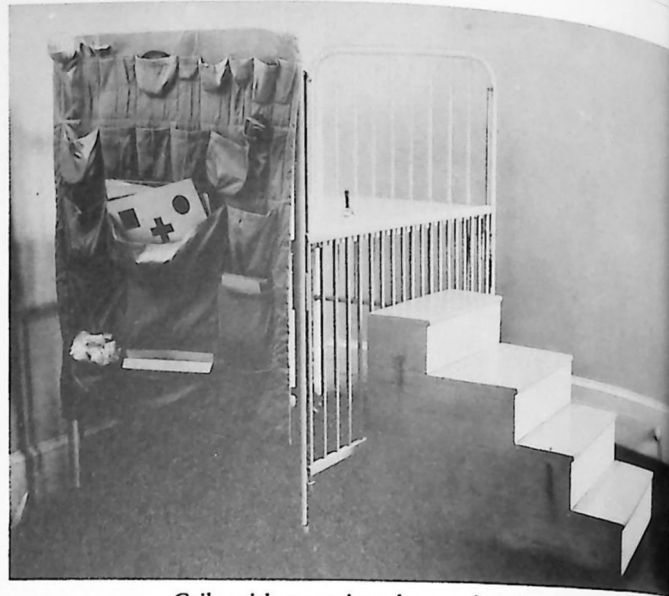
A reel partially unwound for insertion in the analytic projection desk.



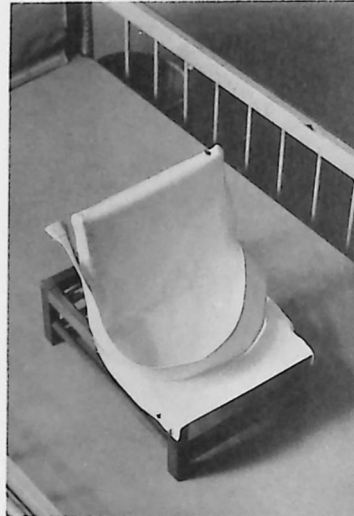
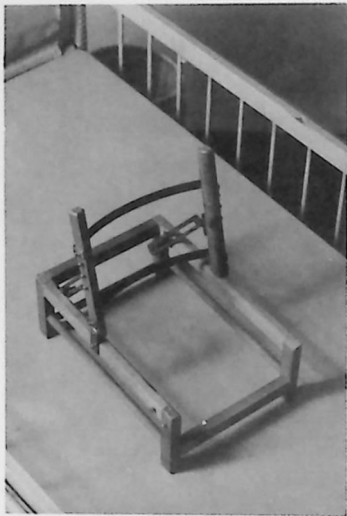
Analytic desk showing projector and working image.



Crib as seen through one-way-vision panels.



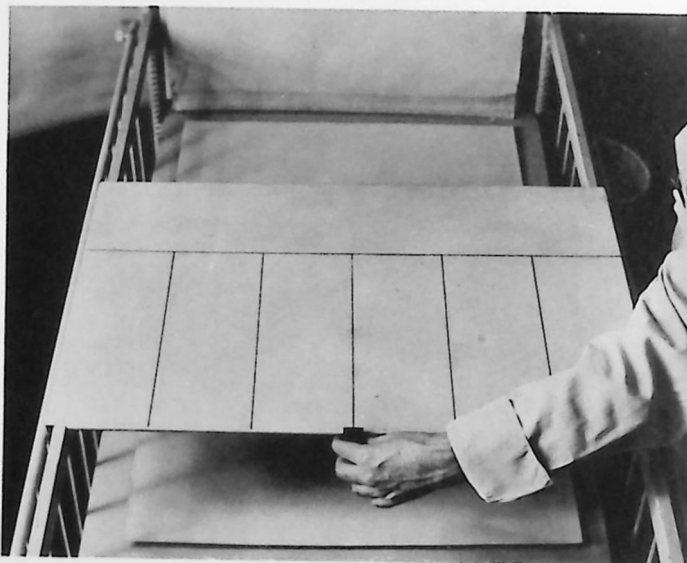
Crib with container bag and staircase.



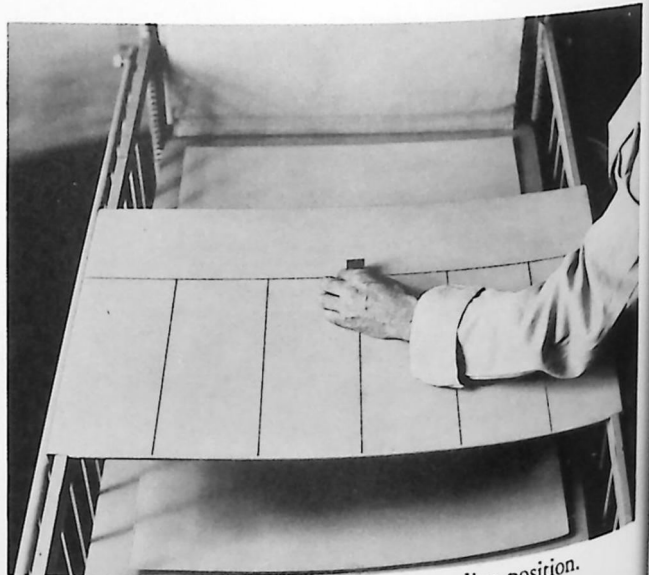
Examination chair with removable canvas seat and belt.



Examination materials and accessories.



Initial phase of cube presentation on table top.



Placement of cube in standard median position.



In this observatory the normative cinema records were made. From these records the delineative photographs of the Normative Series of this Atlas were selected. The interior of the dome is illuminated with diffused, soft light from Cooper-Hewitt combined with Mazda lamps. The surrounding laboratory is

darkened. Two silenced cameras ride on the quadrants of the dome. The infant is examined in the crib located in the universal focal area. The dome is encased in a one-way-vision screen. Observers and operators stationed outside can readily look into the dome, but they themselves are entirely unseen by the infant.

V. ILLUSTRATIONS OF
OBSERVATION ARRANGEMENTS
AND PROCEDURES

1. THE OBSERVATION AND PHOTOGRAPHIC RECORDING DOME
2. EXAMINATION CRIB AND EXAMINATION MATERIALS
3. CINEMA ANALYSIS PROCEDURES
4. THE CYCLE OF EARLY MENTAL GROWTH

arrangement is like opening the leaves of a book for it locates the portion of the record which will be placed in the desk for analysis presently. When inserted in the desk the student usually inspects the reel in full fluent forward motion, arresting and repeating the motion when necessary. If the film is analyzed in some detail the analysis may be entered on a special record form where the behavior sequence features and time values are noted. Selected frames may also be identified in the margin, the location of the frame being read from a numerical counter which is attached to the projector and works synchronously with it.

The selection of the delineation photographs for the normative volume of the Atlas was based on statistical data from investigations* which will be described presently. Numerous extended cinema records of the infants were available at the 4, 6, 8, 12, and 16 weeks age levels. For 7 of these children comprehensive normative records were also made at succeeding age levels. These seven cases were most fully used for the delineation of behavior patterns for the age levels from 20

through 56 weeks. Similarly in the naturalistic volume of the Atlas, photographs were drawn from the comprehensive records of 6 children. This restriction of the number of cases delineated has provided a biographic as well as normative rendering of the cinematic data.

Cinema analysis, therefore, is an objective method of behavior research which was made possible only by the invention of the flexible film and other modern photographic techniques. Cinema analysis is a form of biopsy which requires no removal of body tissue from the living subject. Yet it is truly a study of the structuralization of the child's living behavior. It permits us to bring this behavior without any deterioration into the laboratory for searching dissection. This dissection is equivalent to a microscopic examination of the histology and the function of an organ *in vitro*. It is our belief that anyone clinically or scientifically interested in the genetic problems of infancy must be prepared to study records of behavior pattern with the same minute interest in structured form which the disciplines of embryology and anatomy demand.

* For published reports of these investigations, see Selected Bibliographies, on page 45. The volume entitled *Infant Behavior: Its Genesis and Growth* (by Arnold Gesell in collaboration with Helen Thompson) is an extended exposition of the procedures and findings of the normative research. This volume may be used as a detailed handbook for the broader and fuller interpretation of the pictorial data of the *Atlas of Infant Behavior*.

behavior, including both induced and autonomous learning.

The naturalistic survey, represented by Volume Two of the Atlas, addressed itself to a charting of similar, normal infants under conditions of domestic life with special emphasis on social behavior. The survey embraced feeding, bath, toilet, play activities, sleep, parent-child relationships and social situations involving siblings and other children and adults. The naturalistic cinema records were also concerned with posture, locomotion, prehension, and adaptive behavior, but more incidentally in relation to the situations of everyday life. Both the naturalistic and the normative surveys deal with normal infants of comparable social and racial selection, and it is believed that the two volumes of the Atlas will supplement each other and will, together, furnish a balanced conspectus of behavior characteristics in the first year of human life.

The concept of behavior pattern is protean but for our purposes it has a definite meaning. We use the term pattern in a morphographic sense to emphasize the configured nature of behavior growth. Like the body, behavior takes on changing configuration with age. Behavior is subject to laws of developmental morphology.

IV

CINEMATOGRAPHY AND THE ANALYSIS OF BEHAVIOR PATTERNS. The wealth and complexity of infant behavior are beyond human description. But this behavior by reason of its very manifoldness calls for systematic charting. With the powerful aid of cinematography such charting comes within the range of possibility. The cinema is almost adequate to the challenge. The cinema records completely and impartially; it sees everything with instantaneous vision, and remembers infallibly. It preserves in correlated combination the movements of members and of the whole. It registers in their simultaneous totality the attitudes of head, trunk, arms, legs, eyes, fingers, and face. It crystallizes any given moment of behavior in its full synthesis and permits us to study this moment as a frozen section of behavior pattern. By multiplying the moments, the cinema reconstitutes the entire reaction event and permits us to study a whole episode of behavior manifestations.

But in the service of genetic research the cinema can do still more. It can make records of succeeding days, months or years and bring them into seriation. Thus the cinema makes available for study (a) the behavior moment, (b) the behavior episode, and (c) the developmental epoch. When the cinema data are subjected to minute analysis they open deep vistas in the detailed mechanics of behavior. When the cinema records are

viewed in broader perspective, they reveal configured trends and sequences in the ontogenetic cycle. Growth thus becomes a complicated form of motion which may be studied in terms of time and space.

An analytic interest in the study of motion is not peculiar to recent science. The artist has always had a keen perceptiveness for significant phases of motion in bodily action and posturing. Painter and sculptor try to catch the most salient attitude. The engineer or scientist may be interested in the entire sequence of attitudes. Gilbreth invented the magster as a device for picturing the dynamic elements at the basis of various forms of skill.*

A chrono-photograph may be defined as a record of a moving object taken for the purpose of exhibiting successive phases of motion. In the modern cinema seriated chrono-photographs are represented by the individual photographic frames of the flexible film. In the 16 mm. cinema these frames number 40 per foot, durationally equal to 2.5 seconds; in the 35 mm. film these individual frames number 16 per foot and are durationally equal to 1 second. Counting all the individual frames of our cinema records of infant behavior would make a total of several million of chrono-photographs. Our problem has been to select from these primary records some 3,000 photographs which will most instructively portray the original behavior and delineate its pattern phases. The normative volume of the Atlas is based entirely on 16 mm. records; the naturalistic volume, on 35 mm. records.

The selection of the Atlas photographs was a long process of sifting, accomplished by means of movieolas and other projection devices operated by motor and by hand. The projection desk chiefly used in the analysis of the 16 mm. films throws a succession of small images on a viewing glass. By turning a crank the images may be viewed in full or slowed motion, forward or reverse. By arresting the crank any frame may be studied as a stilled pattern phase and the whole record may be subjected to frame by frame dissection.

The accompanying illustrations indicate how such cinema analysis is made in actual laboratory practice. The 16 mm. films are stored in 100 foot reels duly labeled and classified. A single reel or group of related reels is taken from the vault in a film tray. When several related films are being analyzed they may be placed on a double spindle rack on give and take reels. This ar-

* Over fifty years ago Leland Stanford enlisted the aid of Eadweard Muybridge to secure instantaneous photographic records of the stride of galloping horses. As a breeder Stanford was trying to perfect race horses. His zealous interest in the attitude of the galloping horse led to an important undertaking in systematic photography. In 1878 Muybridge placed a battery of cameras, 24 in number, one foot apart, parallel to the training track to secure adequate records of animal locomotion. This was before the day of the dry plate and the continuous celluloid film.

especially to record recognition of the services of Mrs. Arnold Gesell, who although she had no official connection with the naturalistic project, freely contributed advice and active assistance.

It would be difficult to make a complete list of specific acknowledgments, covering a period of seven years which entailed so much cooperative effort. The normative survey, followed later by the naturalistic survey, the various associated experimental studies, and the organization of the photographic library of the clinic,—all made heavy demands upon coordinated endeavor. The demands were well and generously met. The infants, parents, and relatives who became part of the project are too numerous for individual mention. We feel genuine gratitude for their cooperation which was rendered without recompense, as a contribution to a scientific undertaking. Although the infants may not have been conscious of serving a scientific objective, they expressed and exerted themselves without stint. Cumulatively they created a profound impression of the irrepressibility of life and growth. The Atlas, we hope, will communicate some of this impression to our readers.

III

UNDERLYING CONCEPTS. Before describing the investigations which supplied the data for the Atlas we may summarize the broader concepts which directed these investigations. These concepts concern the morphogenetic aspects of behavior transformation.

All creatures grow; assuredly the human infant grows. He grows not only in a physical sense but in a psychological one. His mental growth manifests itself in visible forms of behavior.

Growth is a process of progressive differentiation and systematization which organizes the individual throughout the course of the life cycle. Thus stated the concept of growth applies equally to mental and to physical phenomena. Both phenomena are expressions or end products of a morphogenetic process. Mental growth like physical growth results in patterning. The psychological individual like the physical individual is patterned. He is the sum and combination of all his behavior forms. His psychological make-up is a consistent organic structure constituted of action patterns.

The ontogenetic patterning of human behavior begins long before birth. Indeed it begins near the time of conception. During the embryonic period, 3 weeks after conception, the heart beats. At the beginning of the foetal period, at 7 weeks, trunk, arms and legs are capable of movement. The total reaction system steadily expands and differentiates. Diagonal trot reflexes and thoracic movements respiratory in character have been observed as early as the 5th month. By the 6th month

the neuromuscular equipment is so far advanced that an infant prematurely born in this month has at least a slender chance of survival. This fact alone certifies to the extensive behavior growth which takes place in the prenatal period. Postnatal patterns of behavior must be envisaged as organic continuations and further differentiations of foetal growth.

The early ontogenetic life cycle is divisible into the following periods which merge into each other by imperceptible gradations: the germinal period from conception to the first week; the embryological period from 1 to 7 weeks; the foetal period from 7 to 40 weeks; the neonatal period from birth to 4 weeks. The present Atlas concerns itself mainly with the age ranges from 4 weeks through 56 weeks. Though the ontogenetic zero of behavior development may well be made to coincide with conception, we follow convention in reckoning chronological age from birth, having taken due precautions to include in our investigations only those infants who have presumably undergone a full term of gestation.

Age is a moment in the life cycle. A cycle is a continuum of ages. Strictly speaking, age is purely a chronological concept and age can be measured only in terms of durational units. But age also denotes a relative position in the life cycle, and this positional value may be expressed in biological terms. A biological age is virtually a biological stage, for a stage is a degree of progression in a developmental cycle. The Atlas delineates degrees of progression which are manifested in patterns of behavior.

Scientifically, the relationships between duration and maturity are so important that careful regard must be paid to factors pertaining to chronological age. Accordingly full term infants alone were included in our studies. Since mental growth is rapid these infants were examined at 15 age intervals from 4 to 56 weeks. The solar months of the Gregorian calendar vary considerably. Therefore all observations were scheduled on the basis of uniform lunar months.

Developmental psychology is concerned with the process and the products of mental growth. The most tangible and accessible products of such growth are the visible patterns of behavior. A pattern of behavior is a configured response characteristically associated with a given stimulus situation and a given condition of the organism. Both in the normative investigation and in the naturalistic survey of infant behavior, the external situations were controlled and repeated from age to age in order to exhibit more clearly the developmental progressions in behavior patterning.

The normative survey, represented by Volume One of this Atlas, addressed itself mainly to a charting of postural development, locomotion, perceptual behavior, prehension, and various forms of adaptive and exploitive

II

ACKNOWLEDGMENTS. This Atlas has grown naturally out of research interests which now extend over a period of years. In connection with a psychological survey of the preschool period of childhood, in 1919, the writer used a graflex camera to photograph infants in characteristic behavior situations. The pictures were taken opportunistically under the usual limitations of amateur photography; but they served to open our eyes to the significance of the camera in the study of behavior patterns. In time we were using the collection of photographs as suggestive aids in developmental diagnosis. Did a certain normal or retarded infant measure up to the behavior standards of nine months maturity? Photographs illustrating behavior characteristic of this age were consulted and they proved even in their crude form to have a normative usefulness, because such selected photographs delineate behavior values and become an objective frame of reference for the interpretation of any comparable behavior. In 1925 in the publication of our investigations we included some 200 action photographs "as the first leaves of a clinical album which may be used for normative reference and comparative purposes."* The album has expanded into the present Atlas.

In 1924, with the cooperation of the Pathé Company, a cinema record was made, outlining "The Mental Growth of the Preschool Child." This venture confirmed our faith in the scientific potentialities of cinematography. Two years later, through the generosity of The Laura Spelman Rockefeller Memorial, a grant was made available for photographic research. This led to the installation of a photographic laboratory in the clinical quarters at 52 Hillhouse Avenue. Members of the staff of the clinic cooperated in planning details of equipment and of a program of normative investigation. These details will be elaborated in later pages and are described at length in several publications listed in the present volume. Professor H. M. Halverson, Research Associate in Experimental Psychology, has been closely identified with the photographic and experimental aspects of the normative research, including the designing of a projection desk for the analysis of cinema records. Sixteen millimeter records of infant behavior were extensively made at lunar month intervals and these extensive records constitute the basis of the first or normative volume of the Atlas.

In 1930 through a special grant from The Rockefeller Foundation, supplemented by a further grant from The General Education Board, it became possible to expand

* Gesell, Arnold: *The Mental Growth of the Preschool Child*. A psychological outline of normal development from birth to the sixth year including a system of developmental diagnosis. New York: Macmillan. 1925. Pp. 447.

the photographic research to include the naturalistic aspects of the infant's behavior development. In this year the clinic was removed to the Yale School of Medicine (14 Davenport Avenue) and its old quarters were converted into a residential unit for a systematic cinema survey of the domestic life and social behavior of the infant. This survey was made by 35 mm. cameras and became the basis for the second, or naturalistic, volume of the Atlas. Especially adapted photographic techniques were developed by Miss Alice V. Keliher and by Mr. Jules V.D. Bucher. As will be detailed later, the naturalistic records were not only made but were also processed under the auspices of the clinic. Mr. Bucher's expert knowledge in the technical fields proved of great value for the enterprise.

Both sets of records, the 16 mm. and the 35 mm., aggregating scores of thousands of film footage, have been assembled, classified, and indexed by library methods. Many of the records have been booked into edited reels. The present Atlas is in a sense a codification of selected materials from the Photographic Library of The Clinic of Child Development. These source materials can be seen in their full fluency only on the screen; but it is the purpose of the Atlas to elucidate and to dissect the original fluency for analytic study. To accomplish this the more solid medium of the printed page is necessary. And I wish to express particularly our debt to the painstaking cooperation of the Meriden Gravure Company. If the infants are successfully perpetuated in this pictorial Atlas, it is due to the illustrations made by a gelatine process which preserves the vigor and detail of the action photographs. Each photograph was enlarged from an individual frame of a cinema film.

The writer has had much assistance in the preliminary selection of these individual frames for reproduction in the Atlas. He wishes especially to acknowledge the help of Miss Esther Upjohn in the sifting of the extensive normative records with which she became intimately acquainted in the capacity of research assistant. Miss Esther T. Radachy rendered exacting service in supplying textual analytic descriptions for the normative volume of the Atlas.

Miss Alice V. Keliher, Ph.D., who had immediate supervision of the naturalistic survey, also made a general analytic inventory of the cinema records of this survey. This inventory became the basis for the selection of the pictorial contents of the second volume of the Atlas. Others who were associated with the naturalistic photographic survey included Miss Virginia Kirk, R.N., B.N.; Mrs. Frances Marshall, Ph.D.; Miss Marie B. Thiele, B.A.; Miss Marcella Fay, B.A., R.N., pediatric nurse; Mr. Wilfred S. Ray, Ph.D., technical research assistant; and Mrs. Dorothy Postle Marquis, Ph.D., National Research Council Fellow in the Biological Sciences. I wish

AN ATLAS OF INFANT BEHAVIOR

I

THIS Atlas delineates the early growth of human behavior. The word *atlas* is used advisedly for we have attempted to chart in a systematic manner the major areas of the infant's behavior world. In these two volumes, embracing over three thousand photographs, will be found visible manifestations of his maturing patterns of action and reaction: his bodily postures,—supine, prone and ultimately upright; his space defying projections of posture,—rolling, pivoting, squatting, crawling, creeping, cruising, climbing, walking; his sensori-motor incorporation of the physical environment through eyes, hands and mouth, staring, scanning, approaching, contacting, grasping, manipulating; his adaptive appropriation of this environment through self initiated and induced exploitations; his cumulative assimilation of the social forces which pervade this selfsame environment, his awareness of persons, his smiling, laughing, crying; his responsiveness to gesture, to speech, and to unremitting domestic ministrations; his compliances, resistances, and participations in feeding, bathing, toilet, dressing, undressing, cleansing, and physical transportations; his own spontaneous explorations and protean play activities; and finally his sleep,—a paradoxical form of behavior which immobilizes him and yet propels him to a higher maturity level of performance on the morrow. Thus through the continuing strange eventfulness of a cycle of days the infant pursues a cycle of mental growth.

The world of his behavior is prodigiously complex, but it is not formless nor beyond the scope of systematic photography. In a biological sense the growth of the infant's mind or psyche is as formed and orderly as the growth of his body. Mental growth is manifested in progressive differentiations of patterns of behavior. Through systematic, pictorial charting, we trust that this Atlas will reveal the patterned organization of the moments and of the developmental sequences of infant behavior. The cinematic camera is an all-seeing recorder. It has caught not only the species characteristics of early human behavior but it has registered those distinctive and durable features of behavior pattern which demonstrate the existence of individuality even in infancy.

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BY

ARNOLD GESELL

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BEHAVIOR SITUATION
RING AND STRING

47.25 seconds
8 phases

Normative Series
Age: 32 weeks
Child: G44

Seconds



E 22.13 Examiner presents ring in far median position, string median. Regards ring. Pronates left hand on string. Regards string. Slides left hand, brushing string 5 inches to the left; lifts hand and pronates on string; closes on string without secural; lifts hand and again pronates on string; closes hand on string; slides hand off string toward table edge; slaps hand on string; grasps string with thumb and index finger. 27.75 Regards ring. Pulls string to the right and releases; closes hand on string and pulls to the left; slides fingers off string almost to table edge. 30.25 Regards table top at right. . . . 30.75 Regards string. Lifts left hand to shoulder level and slaps on table top; slides hand to string. 32.0 Regards ring, then surroundings at right. . . . 34.0 Closes on ring at midline with both hands and carries to mouth.



F 36.75 Mouths ring; removes from mouth. Regards ring. . . . 38.25 Releases left hand; re-grasps ring.



G 39.5 Transfers ring to left hand; turns ring over and carries to right hand; transfers to right hand. Rests ulnar surface of left hand on table top. Regards string on left thumb and index finger. Lifts and withdraws left hand, pulling string taut; grasps string with thumb and index finger.



H 46.0 Carries string to mouth with left hand. Drops ring from right hand. (47.25 sec.)

Seconds



- A 2.75 ¶ Regards ring. Holds right hand at table edge, left hand at shoulder level. 2.0 Examiner presents ring in far median position, string right oblique. 2.75 Approaches ring with left hand, pronating hand on table top. Lifts right hand. Regards string. Approaches string with right hand, pronating outspread hand on string. Regards ring. Closes right fingers on string without secural; retracts hand slightly and replaces on string. Regards string. 4.5 Flexes right fingers, grasping string with thumb and index finger.



- B 5.5 Pulls in ring, lifting right hand to shoulder. Regards ring.



- C 6.75 Approaches ring with left hand; grasps and lifts ring. Releases string from right hand; grasps ring and lowers horizontally to table top with both hands; rotates ring to vertical position; withdraws left hand. 10.25 Carries ring to mouth with right hand. Grasps ring with left hand. Regards table top. Removes ring from mouth. Regards ring. 12.0 Withdraws right hand. Rotates ring downward with left hand. Regards string.



- D 13.5 Contacts string with right index finger. Regards string. Lifts ring with left hand and rotates upward. Grasps ring with right hand. (15.5 sec.)

BEHAVIOR SITUATION
RING AND STRING

28.0 seconds

4 phases

Normative Series

Age: 40 weeks

Child: G44

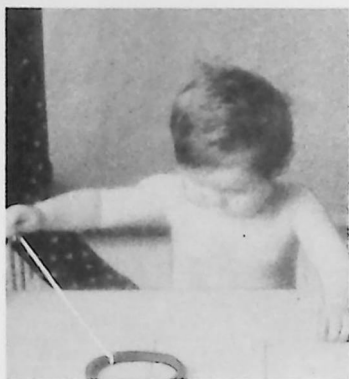
Seconds



- A 4.75 ¶ Regards Examiner's hand, then ring. Rests forearms on table top, hands contacting at midline. 1.0 Regards string. 2.0 Examiner presents ring in far median position, string right oblique. Regards ring. Slides right hand laterally. 3.5 Regards string. Places right hand near string; pivots hand on thumb and places fingers over string; 4.75 closes fingers on string; opens hand and plucks at string; 7.25 grasps string with thumb and index finger; pulls in ring a short distance. Regards ring. Releases string from right hand.



- B 9.25 Approaches ring with right hand; lifts hand and stretches arm toward ring without contact; 10.75 retracts hand almost to table edge. 11.25 Regards string. Pronates right hand on string; grasps with thumb and index finger.



- C 13.0 Pulls ring to table edge with right hand. Regards ring. Releases string from right hand; grasps ring.



- D 15.0 Turns ring to vertical position with right hand; lifts and carries to midline. Grasps ring with left hand; withdraws ring from right hand. Regards string tied around ring. 18.25 Fingers knot with right hand; releases hand. Turns ring forward and back to vertical position, holding bottom of ring with left hand; carries ring to mouth; 22.0 removes from mouth; lowers hand to table top and holds ring vertically. Fingers knot with right hand prolongedly. 25.5 Turns ring from side to side; withdraws left hand. Grasps ring with right hand. Regards surroundings at right. Slides ring to table edge at right; holds ring poised momentarily above platform; drops to platform. (28.0 sec.)

BEHAVIOR SITUATION
RING AND STRING

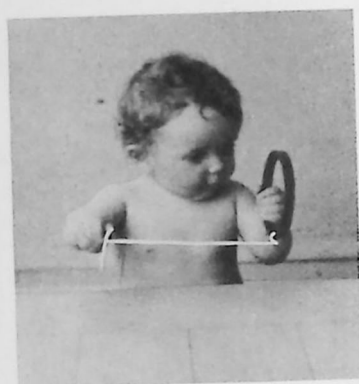
31.75 seconds
4 phases

Normative Series
Age: 44 weeks
Child: G48

Seconds



- A 7.0 ¶ Regards ring. Holds hands at table edge. 2.0 Examiner presents ring in far median position, string right oblique. 2.25 Regards string. Lifts right hand and places near string; flexes fingers; slides hand over string. 4.0 Lifts left hand. Closes right hand on string; simultaneously pronates left hand at midline. Regards string. Opens right hand; grasps string; pulls in ring. Regards ring. 7.0 Approaches ring with left hand; grasps ring; rotates to vertical position. Pulls string with right hand; releases. Rotates ring to horizontal position with left hand. Grasps ring with right hand. Withdraws left hand; places hand through ring; withdraws hand. Turns ring horizontally with right hand. 17.0 Grasps ring with left hand. Withdraws right hand. Regards string on table top. Lifts and abducts ring. Grasps string with right hand.



- B 20.0 Pulls string taut with right hand. Regards ring. Releases string from right hand; grasps ring. Releases ring from left hand; grasps string.



- C 23.75 Waves ring and string vertically, banging ring against table top. Releases string from right hand; grasps ring. Releases right hand; rests forearm on table top, hand semi-flexed.



- D 26.0 Carries ring to side rail with left hand; lowers to platform; extends to rail; lifts and bangs against platform four times. 28.25 Waves ring and right hand synchronously, hitting right hand against table top; pronates right hand on table top. Places ring on table top. (31.75 sec.)

BEHAVIOR SITUATION
RING AND STRING27.25 seconds
4 phasesNormative Series
Age: 48 weeks
Child: G44

Seconds



- A 4.75 ¶ Regards Examiner's hand adjusting string. Holds both hands below table top. 2.0 Examiner presents ring in far median position, string right oblique. Regards string, then ring. 3.75 Places right forearm and hand on table top. Regards string. Leans on right arm. Places left forearm and hand on table top; slides hand slightly to the right; simultaneously flexes right knee. 4.75 Completes postural orientation. 5.75 Places right hand on string; closes on string without secural; grasps string and pulls in ring with one tug.



- B 9.75 Dangles ring above table top with right hand, occasionally contacting table top with ring.



- C 11.0 Pivots to the right and carries ring to platform with right hand. 13.75 Grasps ring with left hand; lifts ring. Regards string. 14.25 Fingers string with right hand; releases string. Regards ring.



- D 18.25 Examines ring, lifting and turning with left hand. 20.25 Grasps ring with right hand. Turns head forward and regards surroundings ahead. Grasps string with left hand. 24.0 Transfers ring to left hand and bangs on table top; releases ring momentarily; re-grasps and lifts. (27.25 sec.)

BEHAVIOR SITUATION
RING AND STRING

25.75 seconds

4 phases

Normative Series

Age: 52 weeks

Child: G48

Seconds



- A 4.75 ¶ Regards ring. Pronates both hands at table edge. Regards Examiner's right hand. Draws right hand to trunk. 2.0 Examiner presents ring in far median position, string right oblique. Lifts right hand and places over string. Regards ring. Closes right fingers on string without secural; 4.75 opens hand. Regards string. Grasps string with right thumb and index finger; pulls in ring 5 inches. Regards ring. Lowers string to table top and releases. 7.0 Leans forward and approaches ring.



- B 7.75 Grasps ring with right hand and slides hand 3 inches backward; 9.0 releases ring. Regards string. Places right hand on string and pushes string toward table edge; adjusts fingers and grasps end of string. Regards ring. 12.75 Lifts right hand and dangles ring above table top.



- C 13.75 Dangles ring above platform; lowers ring and right hand to platform; lifts string to crown level. 16.5 Grasps string with left hand and pulls ring to table top. Releases string from right hand. Lifts ring with left hand. 17.75 Grasps ring with right hand; waves vertically at right; waves left hand synchronously. Grasps ring with left hand; carries to mouth with both hands. ... 21.75 Regards string. Holds ring at shoulder level with left hand. Grasps string with right hand; pulls string taut; turns trunk toward right.



- D 23.75 Lowers string below table top with right hand. Lowers ring to table top with left hand. Regards string. 24.5 Releases ring from left hand. Regards ring. Withdraws left hand. Lifts string with right hand and pulls ring to platform. (25.75 sec.)

BEHAVIOR SITUATION
RING AND STRING

20.0 seconds

4 phases

Normative Series

Age: 56 weeks

Child: G48

Seconds



- A 5.75 ¶ Regards ring. Holds left hand on trunk, right hand on table edge at midline. 1.5 Regards string. 2.0 Examiner presents ring in far median position, string right oblique. Lifts right hand and approaches string; closes fingers on end of string. Regards ring. Withdraws right hand without securing string. Regards string. 3.75 Replaces right hand on string; grasps string with thumb and index finger. Regards ring. 5.75 Pulls ring to table edge at right; releases string; grasps and lifts ring. 8.5 Grasps ring with left hand.



- B 9.0 Looks through ring while turning it with both hands; withdraws right hand and places on table edge. Regards string below table top. Grasps string with right hand. Regards ring. Rotates ring 180 degrees right with left hand and places ring on table top; slides ring forward.



- C 14.0 Places ring on table top with left hand; retracts hand. Pulls ring to platform with one tug of string by right hand.



- D 16.75 Swings ring at right and bangs vigorously against platform; swings ring across table top to the left. Contacts end of string with left hand. Whirls ring beyond rail and above platform at right. (20.0 sec.)

BEHAVIOR SITUATION
RING, STRING, AND BELL

I. 10.0 seconds; 4 phases
 II. 32.0 seconds; 4 phases
 III. 20.75 seconds; 4 phases

Normative Series
 I. Age: 32 weeks Child: G 48
 II. Age: 40 weeks Child: G 48
 III. Age: 44 weeks Child: G 48



a 2.0 seconds



b 6.0



c 6.75



d 8.5

32 weeks. Regards Examiner's hand ringing bell and placing it in ring, briefly follows withdrawing hand, then regards bell (a). Pats table top with left hand; extends arm and hand toward bell; closes hand and drops it to table top. Scratches table top with left hand; pronates left hand while reaching for bell with right

arm and hand in full extension (b). Lowering right hand to table top, withdraws it to table edge as she regards string (c). Lifts both hands; places left hand on table top and approaches string with right hand (d); slides hand medially. (10.0 sec.)



a 9.5



b 13.75



c 16.5



d 21.25

40 weeks. Regards bell. Slaps table top with both hands; regards string; slides right hand to string; closes fingers on string but without secural. Again slides right hand to string; pulls string until ring is within reach (a). Releases string from right hand and grasps ring with left hand; draws ring and bell to table edge. Lifts ring with left hand and approaches with right hand

(b); holds with both hands momentarily, then releases ring from left hand and grasps handle of bell (c). Hits bell against table top, moving ring synchronously; lifts bell to chest level and bangs ring against bell; lowers ring and bell to table top, then vigorously rings bell and waves ring (d); again brings ring and bell into combination at chest level. (32.0 sec.)



a 6.75



b 8.75



c 11.5



d 16.25

44 weeks. Regards bell. Reaches for it with right hand; slaps table top; approaches string but without regard. Slaps table top with both hands. Slides pronated right hand over string; regards string; closes fingers on string without secural while shifting regard to bell; regards string and again closes fingers on

string (a); draws ring within reach, regarding bell; grasps ring with left hand (b); draws it to table edge. Releases string from right hand and approaches bell (c); rings bell; pauses and listens, regarding ring; repeats bell ringing and listening but regards bell (d); smiles broadly. (20.75 sec.)

BEHAVIOR SITUATION
RING, STRING, AND BELL

I. 35.75 seconds; 4 phases
II. 28.5 seconds; 4 phases
III. 23.0 seconds; 4 phases

Normative Series
I. Age: 48 weeks Child: G 48
II. Age: 52 weeks Child: G 48
III. Age: 56 weeks Child: G 48



→→→ a 15.25 seconds



b 21.25



c 22.75



d 27.0

48 weeks. Regards bell. Reaches for string with left hand but without secural. Approaches bilaterally; pronates left hand; grasps string with right hand and pulls ring within reach; strains toward bell, touching handle with right index finger; grasps ring, shifting regard to left, then to ring. Lifts ring with right hand and bell with left (a); inspects clapper. Hits bowl against ring;

inserts bell through ring, drawing ring over left arm (b); places bell upright; then horizontally on table. Releases ring from right hand and grasps bowl (c). Withdraws left arm from ring and transfers bell to left hand; places bell in center of ring on table (d); rings bell; listens; transfers bell to right hand and repeats ringing and listening. (35.75 sec.)



a 8.5



b 13.75



c 26.5



d 28.25

52 weeks. Regards bell. Closes right fingers on string; adjusts grasp and pulls ring obliquely within reach; grasps ring and draws it nearer; approaches bell but grasps ring and draws it slightly nearer (a); places palm on tip of handle but again grasps ring. ...Transfers ring to left hand; lifts ring; rings bell;

combines ring and bell (b). Turns toward left and lowers ring and bell to platform; leans forward toward rail; lifts bell to table edge with right hand; pivots to left; drops bell; regains bell with right hand and rings it (c); pivots farther counter-clockwise and regards surroundings at right (d). (28.5 sec.)



a 10.5



b 11.5



c 17.25



d 19.75

56 weeks. During presentation regards string and approaches it with right hand, then shifts regard to bell. Grasps string with right hand and pulls ring a short distance; draws hand off string; resecurcs string and quickly pulls ring to table edge. Lifts right hand; approaches bell; withdraws hand; grasps tip of bell (a); turns bell 90 degrees left and regards clapper (b);

places bell on ring, then in center of ring; moves bell within ring; releases bell; grasps string (c); pulls ring and bell to platform; dangles ring at right, regarding bell on platform (d); carries ring to table top. Grasps string with left hand. Regards Examiner at left. Transfers string to left hand and dangles ring. (23.0 sec.)

BEHAVIOR SITUATION
PAPER AND CRAYON

I. 30.0 seconds; 4 phases
II. 29.5 seconds; 4 phases

III. 33.0 seconds; 4 phases
IV. 51.5 seconds; 4 phases

Normative Series
I. Age: 36 weeks Child: G 44
II. Age: 44 weeks Child: G 31
III. Age: 52 weeks Child: G 31
IV. Age: 56 weeks Child: G 47



36 weeks a 5.25 seconds



b 8.5



c 10.0



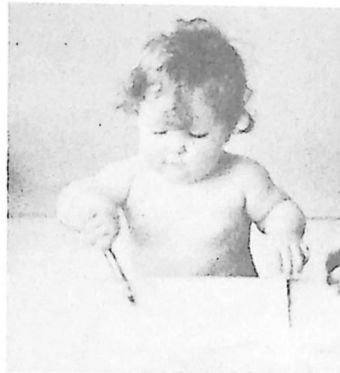
d 16.25



44 weeks a 2.0



b 7.75



c 18.5



d 28.25



52 weeks a 2.75



b 7.75



c 25.75



d 26.0



56 weeks a 7.0



b 7.75



c 22.25



d 32.75

At 36 weeks infant repeatedly carries the crayon to the mouth. Gives attention to the demonstration, but does not apply the crayon to the paper. At 44 weeks taps crayon lightly on the paper and also hits crayon vigorously against the paper, producing staccato marks. At 52 weeks repeatedly makes linear marks

on the paper with the crayon. Shifts regard from the marks to the Examiner. At 56 weeks makes marks over the Examiner's demonstrational marks with the crayon held in either hand. Refers to the Examiner during this activity.

BEHAVIOR SITUATION
PERFORMANCE BOX

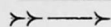
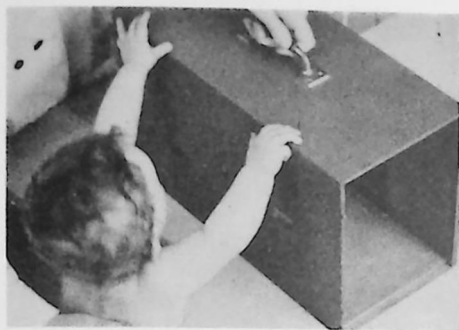
I. 73.0 seconds; 6 phases

II. 75.25 seconds; 6 phases

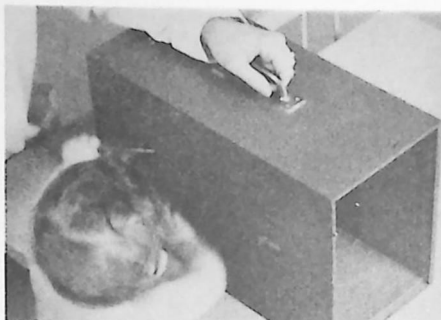
Normative Series

I. Age: 40 weeks Child: G 48

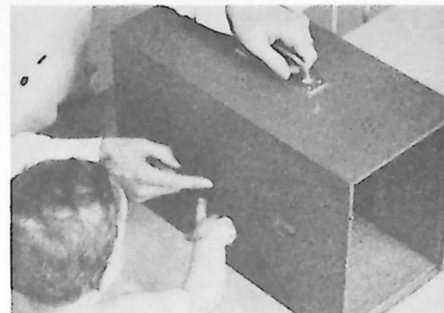
II. Age: 44 weeks Child: G 48



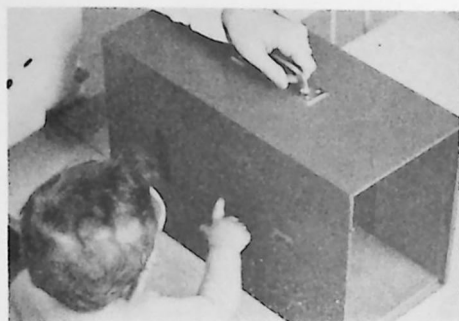
a 1.0 second



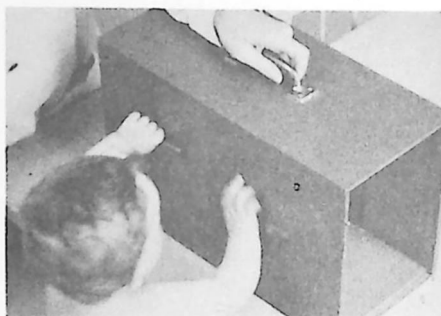
b 34.0



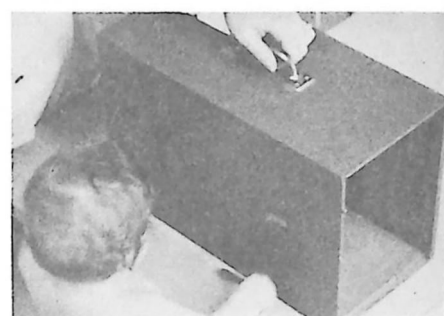
c 36.5



d 38.5



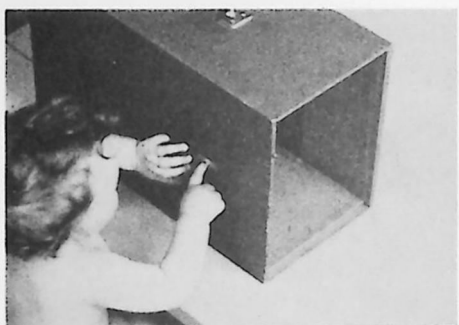
e 60.0



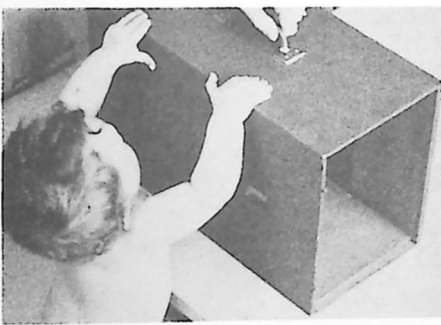
f 71.75

40 weeks. Regards performance box. Reaches top of box with both hands (a). . . (Examiner presents rod.) Hits side of box with rod in right hand; transfers rod to left hand; bangs rod on table top; inserts rod into left hole (b). Inserts left fingers into right hole. . . Points to center hole with right index finger during demonstration (c); inserts finger through center hole

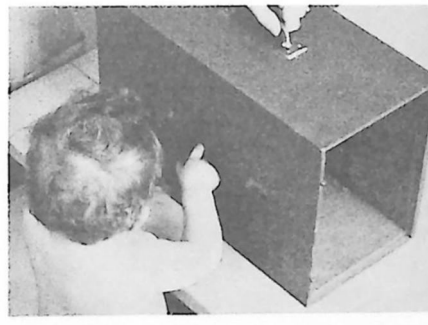
(d). Pokes rod and right index finger at center hole. . . Places right hand on side of box and applies rod near left hole (e). (Examiner demonstrates rod insertion.) Pokes at center hole with right index finger. Bangs rod against side of box with left hand; transfers rod to right hand and hits rod on table top, waving right hand simultaneously (f). (73.0 sec.)



a 3.5



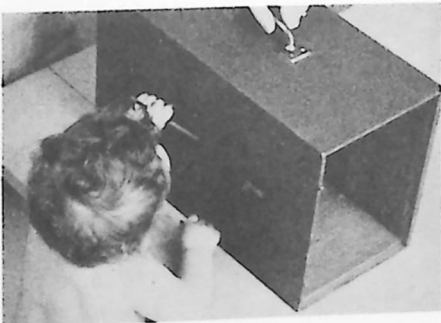
b 9.25



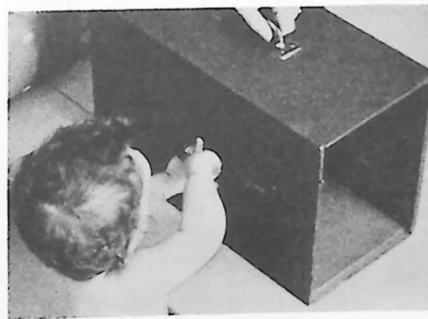
c 11.75



d 23.25



e 52.5



f 72.75

44 weeks. Regards right hole. Fingers right hole with right index finger (a); lowers hand to table top; again fingers right hole. Reaches top of box with left hand, then with right hand (b); withdraws hand. Inserts right index finger through center hole (c). Reaches top of box with both hands. . . (Examiner presents rod.) Pokes center hole with rod in right hand; trans-

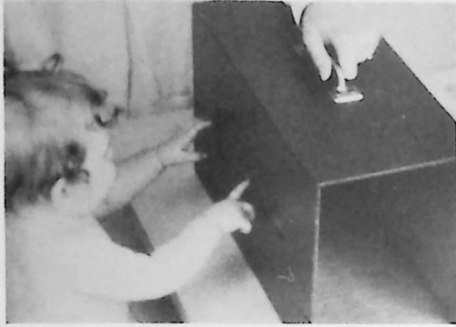
fers rod and rubs it on side of box (d); lowers it to table top. . . Pokes rod during Examiner's demonstration of insertion through center hole. Fingers center hole with right index finger. Applies rod near center hole with left hand (e). . . Mouths rod. Inserts left fingers through center hole and places rod across back of left hand (f); withdraws rod. (75.25 sec.)

BEHAVIOR SITUATION
PERFORMANCE BOX

I. 45.5 seconds; 3 phases
II. 76.75 seconds; 6 phases

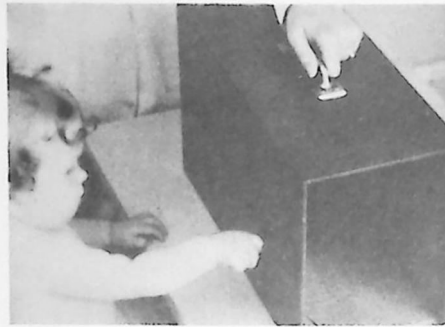
Normative Series

I. Age: 48 weeks Child: G 31
II. Age: 52 weeks Child: G 31

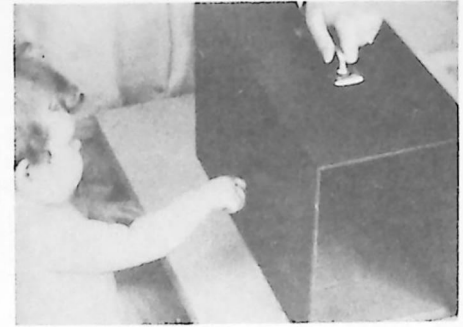


→→→

a 7.5 seconds



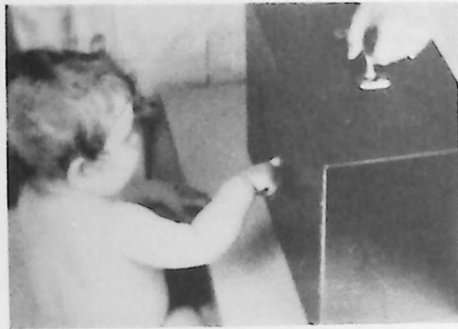
b 15.75



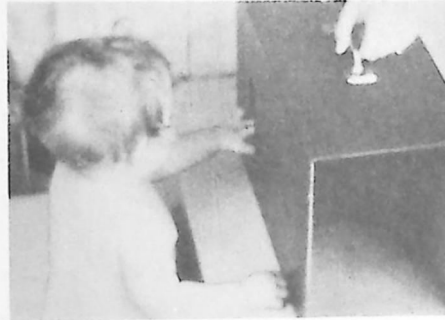
c 26.0

48 weeks. Regards performance box. Inserts right index finger through right hole; points right index finger at center hole and waves left hand, contacting side of box (a). Waves both hands synchronously. Inserts right index and middle fingers through right hole. (Examiner presents rod.) Grasps rod with right hand and inserts it into right hole (b); withdraws rod and rubs

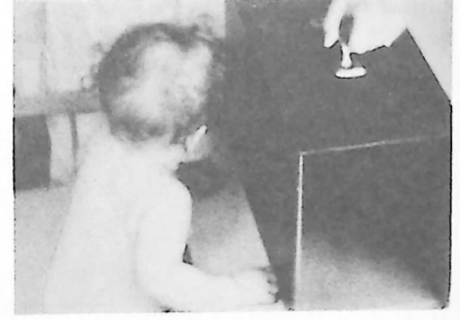
it against side of box. (Examiner points to center hole.) Pokes rod at center hole prolongedly (c). Pronates left hand over left hole. (Examiner demonstrates rod insertion.) Inserts rod through right hole. (Examiner points to center hole.) Inserts rod through center hole but without release. Extends rod to Examiner. (45.5 sec.)



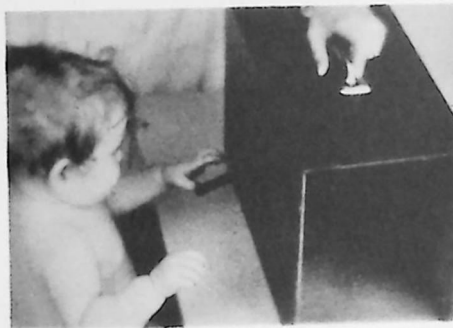
a 4.75



b 9.5



c 11.0



d 42.75



e 62.75



f 69.0

52 weeks. Regards performance box. Inserts right index finger through center hole (a); withdraws hand. Contacts box near left hole with left hand; inserts index and middle fingers through left hole (b). Leans forward and peers through left hole (c). Inserts right index finger through center hole, then through right hole. (Examiner presents rod.) Places rod partly in center hole; releases rod; re-grasps rod; pulls it out partially and again pushes it into hole; releases rod, dropping it on table top.

...Grasps rod with left hand; partially inserts rod into center hole and releases it (d). ...Inserts right index finger through right hole; withdraws hand. Reaches top of box with both hands and strains upward, pulling box toward self (e). Lowers hands and pushes box forward slightly. Grasps rod with left hand and places it in right hole; releases rod, dropping it to table top (f). ...Inserts rod through right hole with right hand; releases rod; pushes it through hole. (76.75 sec.)

BEHAVIOR SITUATION
FORMBOARD

- I. 32.0 seconds; 4 phases
- II. 42.75 seconds; 4 phases
- III. 59.0 seconds; 4 phases

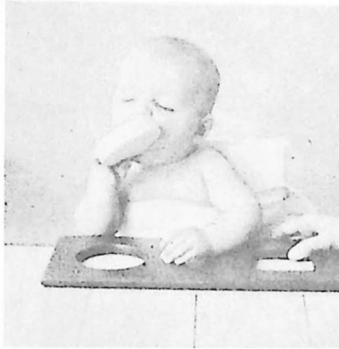
- Normative Series*
- I. Age: 20 weeks Child: B 34
 - II. Age: 24 weeks Child: B 34
 - III. Age: 28 weeks Child: B 34



→→→ a 6.75 seconds b 25.5

20 weeks. Regards formboard and yawns. Lowers right hand, then left hand to formboard. Regards surroundings, then left hand. Places right hand in triangular hole (a); extends fingers and withdraws hand. Regards triangular hole. Moves right hand about on formboard. .. (Examiner presents round block.) Regards block. (Examiner inserts block into infant's right hand

c 27.25 d 30.25
and assists in holding block.) Pushes block on edge to square hole. (Examiner removes block from hole and withdraws hand.) Drops block on side (b); pulls it on formboard and pushes it slightly to the left (c); pushes block partly off formboard; pulls it on formboard; again pushes it forward and releases it (d); withdraws hand. (32.0 sec.)



a 3.0 b 11.0

24 weeks. Regards formboard. Approaches formboard bilaterally during presentation; places left fingers in triangular hole; manipulates round hole with right fingers (a); scratches edge of formboard with right fingers. Manipulates triangular hole with left fingers (b). Regards left hand. Manipulates formboard with both hands but without grasping it. (Examiner presents round block.) Regards block momentarily, then formboard. Continues to finger triangular and round holes. Regards block.

c 33.75 d 35.25
Contacts block with left hand; pronates hand on formboard. Grasps block with right hand, then with left hand. (Examiner releases block.) Lowers block to formboard; withdraws left hand. Lifts block to mouth (c). .. (Block is placed in round hole.) Regards block. Scratches at block with right fingers without removal (d). Repeatedly extends and flexes left fingers. (42.75 sec.)



a 6.75 b 25.75

28 weeks. Regards formboard. Grasps formboard with right hand during presentation. Hits formboard prolongedly with left hand, right hand, left hand (a), then both hands. Regards surroundings. Pushes formboard to the left. Regards formboard. Pulls formboard to the right and releases it beyond reach. .. (Examiner presents round block.) Regards block. Grasps it bilaterally; drops it on formboard; grasps block bilaterally and carries it to mouth (b). Releases block from right

c 38.0 d 49.25
hand. Drops block from left hand; pushes block about on formboard. (Block is placed in round hole.) Contacts block with both hands but without removal (c). Hits formboard with left hand. (Examiner presents block.) Grasps block bilaterally; releases it from right hand. Turns block from side to side with left hand. (Block is replaced in round hole.) Scratches at block with right hand; lifts it momentarily (d). Turns block with left fingers; withdraws hand. (59.0 sec.)

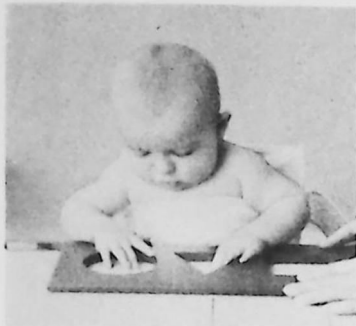
An Atlas of Infant Behavior

BEHAVIOR SITUATION
FORMBOARD

- I. 44.25 seconds; 4 phases
- II. 49.5 seconds; 4 phases
- III. 57.75 seconds; 4 phases

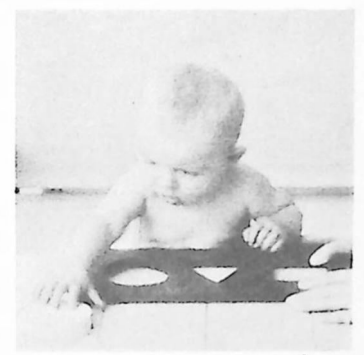
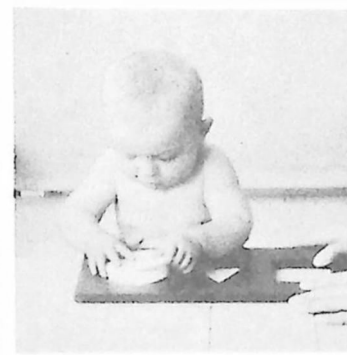
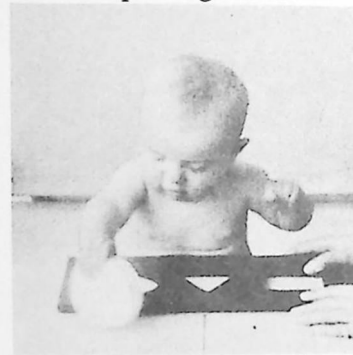
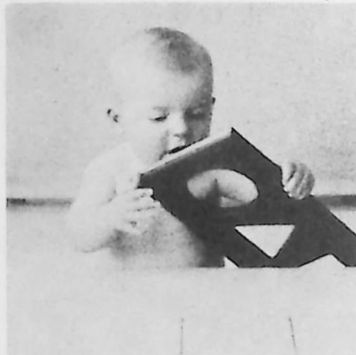
Normative Series

- I. Age: 32 weeks Child: B 34
- II. Age: 36 weeks Child: B 34
- III. Age: 40 weeks Child: B 34



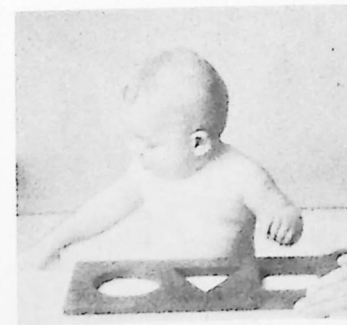
a 4.25 seconds *b 13.75*
32 weeks. Regards formboard. Grasps formboard with both hands and draws it to table edge. Fingers round hole with right hand, triangular hole with left hand (a). Pushes formboard to left with right hand; bangs formboard against table top while sliding it to right; pulls formboard to platform (b). .. (Examiner presents round block.) Regards block. Grasps it with both hands; transfers block to right hand and turns it from side to side (c); holds block at right while manipulating round hole

c 21.5 *d 23.0*
with left hand (d); transfers block; holds it with both hands. Begins to fuss. Releases block from right hand and manipulates round hole. (Block is placed in round hole.) Pulls block from hole and drops it on table top. (Block is replaced in round hole.) Turns block with left hand. Slaps block with right hand; lifts block and turns it over; transfers it to left hand. (44.25 sec.)



a 7.0 *b 23.75*
36 weeks. Regards formboard. Lifts formboard with left hand and contacts edge with right hand (a). Releases formboard momentarily. Grasps far corner with both hands. Regards Examiner. .. (Examiner replaces formboard on table top and presents round block.) Grasps block with left hand; transfers block to right hand and carries it to mouth. Bangs block on table top three times (b); carries it to mouth; grasps it with left hand. .. (Block is placed in round hole.) Removes block with right

c 41.0 *d 43.5*
hand; drops it on table top. Grasps block with right hand and resumes banging. (Block is replaced in round hole.) Pulls at block with right hand. Turns block around with left hand. Replaces right hand on block and lifts it slightly with left hand (c); withdraws left hand. Pulls block out with right thumb; places hand on block (d) and slides it to the right; carries block to mouth; grasps block with right hand also. (49.5 sec.)



a 11.0 *b 23.5*
40 weeks. Regards formboard. Pulls it off table top with right hand. Grasps it with left hand momentarily. Holds corner of formboard with right hand and turns formboard upright; slides formboard to the right and drops it; lifts it with right hand and grasps it with left hand (a); drops formboard partly off table top; lifts it with right hand; hits it against rail. .. (Examiner presents round block.) Grasps block bilaterally and mouths it; hits block against formboard with right hand (b). Grasps block

c 32.75 *d 51.25*
with left hand and carries it to mouth; drops it. Grasps block with right hand and bangs it on platform (c), then on formboard; releases block on edge in round hole and pushes it into position; pulls block from hole; slides it to platform. (Block is placed in round hole.) Pulls block to vertical position with right hand (d), and pushes it on side; lifts block to mouth and grasps it with left hand. (57.75 sec.)

BEHAVIOR SITUATION
FORMBOARD

I. 47.5 seconds; 4 phases
II. 57.0 seconds; 8 phases

Normative Series
I. Age: 44 weeks Child: B 38
II. Age: 48 weeks Child: B 38



→→→ a 8.0 seconds



b 34.25



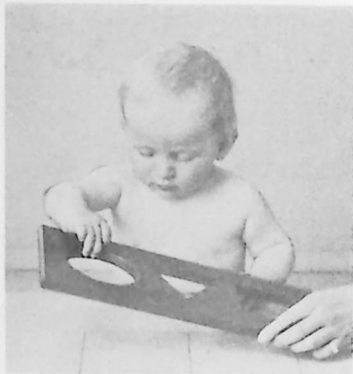
c 41.5



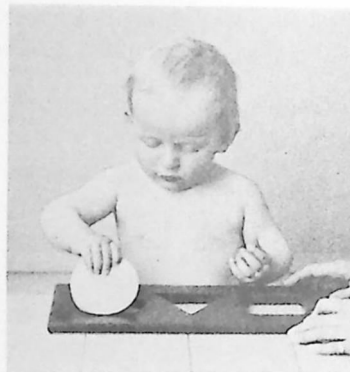
d 44.5

44 weeks. Regards formboard. Contacts formboard with right hand; withdraws hand. Grasps formboard with both hands and lifts it to upright position (a). Releases formboard from right hand and slides it to the left; releases formboard on table top. Regards surroundings at left. .. (Examiner presents round block.) Grasps block with left hand; transfers it to right hand;

re-transfers it to left hand and bangs it on table top, waving right hand synchronously. .. (Block is placed in round hole.) Turns block around with right hand (b). Manipulates and removes block with both hands (c). Bangs block in round hole with right hand (d); releases block. (47.5 sec.)



a 3.25



b 20.0



c 21.25



d 22.25



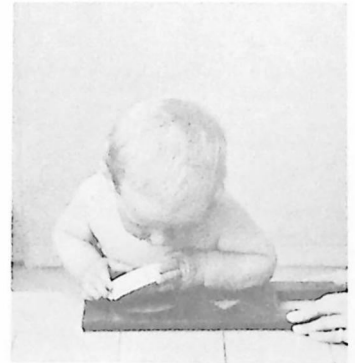
e 30.75



f 34.75



g 50.5



h 53.25

48 weeks. Regards formboard. Grasps formboard with right hand and lifts it (a); bangs it on table top and releases it. Grasps formboard with right hand; lifts it on end and slides it to the right; releases formboard on table top. Regards Examiner. .. (Examiner presents round block.) Grasps block with right hand; slides block on formboard; transfers block to left hand and holds it lifted. Manipulates round hole with right fingers. Transfers block to right hand; hits block in round hole (b), in triangular hole (c), and in square hole (d). Bangs block vigorously against formboard and drops it on table top. .. (Block is placed in round hole.) Slaps block with right hand; turns block around (e). Pulls block with both hands; withdraws left hand. Partly removes block with both hands (f); relaxes grasp and

drops block into hole; withdraws left hand. Scratches at block with right fingers. Turns block around with left hand; pulls at block with both hands; withdraws left hand. Removes block with right hand. .. (Block is replaced in round hole.) Places hands on either side of block; lifts block and releases it into hole. Replaces hands on block and pulls at it; withdraws hands. Removes block with right hand. (Block is replaced in round hole.) Again replaces hands on either side of block and scratches at it (g); withdraws left hand. Presses against block with right hand, then with left hand. Leans forward while removing block with both hands (h); lifts block to chest; hits it in round hole; throws it on table top. (57.0 sec.)

BEHAVIOR SITUATION
FORMBOARD

I. 33.75 seconds; 4 phases
II. 34.75 seconds; 8 phases

Normative Series
I. Age: 52 weeks Child: B 38
II. Age: 56 weeks Child: B 38



→→→ a 2.0 seconds



b 18.75



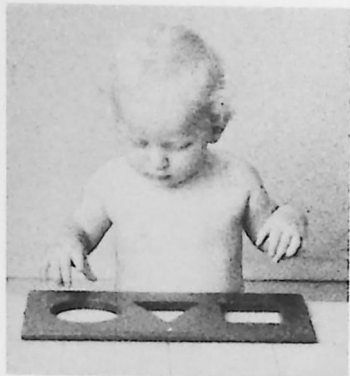
c 26.25



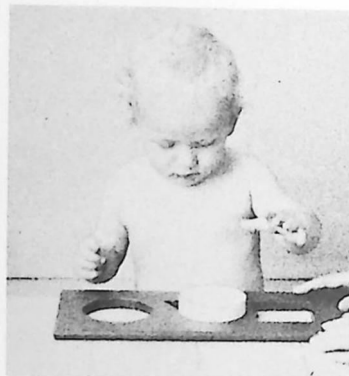
d 29.5

52 weeks. Regards formboard. Places right index finger and thumb into round hole (a). Grasps formboard with both hands; turns it upright. Releases formboard from right hand. Carries it to left above platform; lowers to upright position on table top and grasps with right hand. Regards Examiner. Releases formboard; re-grasps with both hands and turns it over; withdraws hands. (Examiner presents round block.) Grasps block with right hand; transfers to left hand and places over triangular hole;

releases block (b); withdraws hands. .. (Block is placed in round hole.) Grasps block with right hand, then with left hand; removes block with both hands (c). Lifts block and turns it from side to side; withdraws left hand. Releases block partly in round hole with right hand (d). Turns block around with left hand. Removes block with right hand and throws it on platform. (33.75 sec.)



a 2.25



b 13.5



c 16.75



d 19.5



e 20.25



f 21.5



g 22.25



h 29.75

56 weeks. Regards triangular hole (a). Grasps formboard with both hands and lifts it to upright position; lowers it to table top and releases. .. (Examiner presents round block.) Regards block. Grasps block with left hand and releases it above triangular hole (b). Pushes block forward with both hands. Grasps block with left hand and hits it against formboard; extends fingers and rolls block back and forth (c); pushes block to

side (d); slides block off formboard (e); re-grasps block and places it upright in round hole (f); releases it (g). (Block falls on side.) Grasps block bilaterally; releases it from right hand. Extends block to Examiner. (Block is placed in round hole.) Removes block with both hands; releases block (h), dropping it partly in round hole; pushes block off formboard. Extends block to Examiner with left hand. (34.75 sec.)

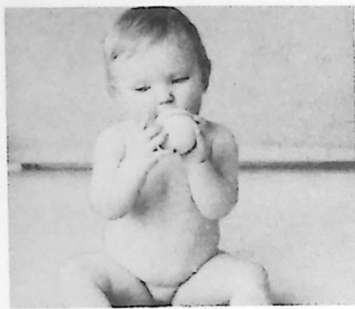
BEHAVIOR SITUATION
BALL PLAYI. 58.0 seconds; 4 phases
II. 18.75 seconds; 4 phasesIII. 31.0 seconds; 4 phases
IV. 26.75 seconds; 4 phases

Normative Series

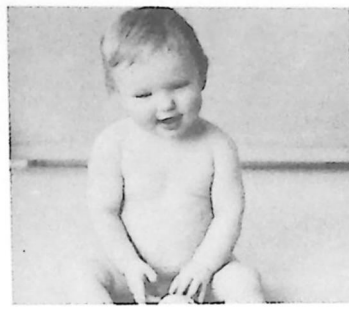
I. Age: 40 weeks Child: G 47
II. Age: 44 weeks Child: B 34
III. Age: 48 weeks Child: G 47
IV. Age: 56 weeks Child: G 47

40 weeks

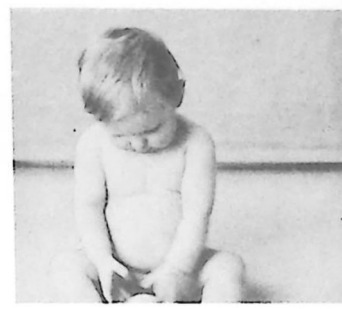
a 9.25 seconds



b 39.75



c 45.25

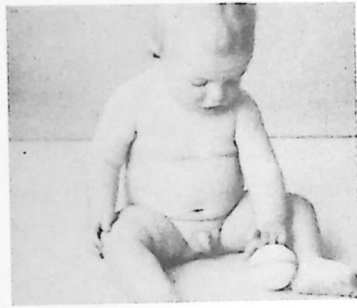


d 54.0



44 weeks

a 2.5



b 10.75



c 11.75



d 17.25



48 weeks

a 12.25



b 20.5



c 26.5



d 29.0



56 weeks

a 9.0



b 19.5



c 22.5



d 25.75

At 40 weeks infant holds ball lifted and carries it to mouth; pushes ball about on platform between legs and fortuitously releases it. At 44 weeks pushes ball with right hand, then with left hand. Rolls ball over left ankle with right hand. Grasps ball in right hand and releases it; pronates hand on platform in readiness to hit ball. Follows ball with visual regard as it rolls away. At 48 weeks extends ball to Examiner with left hand;

drops ball and watches it roll away. Releases ball after extending it to Examiner; also releases ball on platform between legs. At 56 weeks extends ball with right hand to Examiner. Throws ball, waving both hands as ball bounces. Grasps rail with right hand, assuming creeping position, and throws ball from left hand.

BEHAVIOR SITUATION
MIRRORI. 25.25 seconds; 4 phases
II. 47.0 seconds; 4 phases
III. 35.25 seconds; 4 phasesNormative Series
I. Age: 40 weeks Child: B 36
II. Age: 44 weeks Child: B 36
III. Age: 48 weeks Child: B 36

→→→

a 5.0 seconds



b 9.25



c 19.5



d 24.75

40 weeks. Regards curtain. Reaches for curtain with left hand; lowers hand. Regards own image, Examiner's image (a), then own image. Supinates right hand and regards it. Shifts regard to image of right hand (b), own image, Examiner's image. (Examiner places infant nearer to mirror.) Waves left hand.

Regards image of feet, then side of mirror. Fingers edge of mirror with right hand. Reaches toward own image with left hand (c); resumes waving of left hand. (Examiner places ball at left of infant.) Smiles at own image (d). (25.25 sec.)



a 6.0



b 10.0



c 10.5



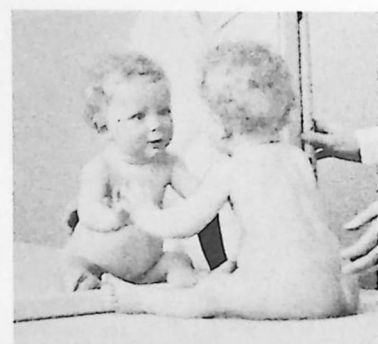
d 34.0

44 weeks. Regards curtain as it is being raised. Holds both arms semi-flexed. Regards own image, Examiner's image, then own image. Contacts mirror twice with right hand (a); grasps edge of mirror. Regards surroundings at left in mirror, then own image. Smiles at own image and holds left hand against mirror (b). Regards image of left hand (c). Extends left hand and continues to finger mirror. Regards surroundings in

mirror, then own image. Pats mirror with both hands; withdraws hands to trunk. Extends right hand to mirror. Places left hand on left leg, then on platform. Waves both hands. Laughs at own image (d). Holds hands on abdomen. Extends left hand to mirror and regards hand. Resumes waving of hands with occasional contacting of mirror. (47.0 sec.)



a 7.25



b 11.25



c 18.5



d 30.25

48 weeks. Regards own image, then Examiner's image. Extends right hand to mirror. Regards image of right hand (a). Pats mirror with right hand. Regards own image. Waves right hand. Regards Examiner's image. Leans forward and extends both hands to mirror. Regards own image (b). Withdraws hands. Extends left hand to mirror; waves hand. Regards image of right hand. Holds left hand against mirror (c); with-

draws hand to trunk. (Examiner places ball at left of infant.) Regards image of ball, Examiner's image, then own image. Leans forward and extends both hands to mirror; waves hands. Lowers left hand to platform. Begins to fuss. Lifts hands and places them on mirror (d). Regards own image, then Examiner's image. Pats mirror with left hand; slides hand down mirror; again lifts hands and places them on mirror. (35.25 sec.)

BEHAVIOR SITUATION
MIRROR

I. 46.25 seconds; 8 phases
II. 38.0 seconds; 4 phases

Normative Series
I. Age: 52 weeks Child: B 36
II. Age: 56 weeks Child: B 36



a 3.25 seconds



b 7.5



c 9.75



d 15.75



e 26.5



f 28.25



g 40.0



h 43.75

52 weeks. Regards own image. Waves hands (a). Regards Examiner's image. Extends right hand to mirror and regards image of hand (b); waves hand. Leans forward; extends both hands to mirror (c); withdraws hands and sits erect. Regards Examiner (d), Examiner's image, then own image. Leans forward, pronating hands on platform. (Examiner places ball at left of infant.) Waves right hand, hitting mirror occasionally. Leans to the left, pronating hands on platform. Leans forward;

places both hands on mirror and contacts mirror with mouth (e); slaps mirror simultaneously with both hands four times (f). Regards Examiner's image, then own image. Lowers hands to platform, leaning far forward; sits erect. Regards images of hands engaged before him. Turns to the left and places hands on platform; protrudes tongue at own image (g); leans far forward. Partially erects trunk and re-contacts mirror with mouth (h); again leans forward.



a 2.0



b 14.0



c 31.5



d 36.25

56 weeks. Regards own image. Leans forward and places both hands on mirror (a); waves hands simultaneously; slaps mirror with both hands. (Examiner places ball at left of infant.) Leans forward. Lifts right hand and places it on mirror; assumes kneeling posture and places left hand on mirror (b). Fingers mirror with right hand; sits on platform. Places right

hand on mirror; leans forward. Moves to and from mirror; contacts mirror with mouth (c); withdraws. Regards Examiner's image, then own image. Re-contacts mirror with mouth; withdraws. Protrudes tongue. Rises to the kneeling position; waves hands (d); places hands on mirror. (38.0 sec.)

BEHAVIOR SITUATION
RING AND STRING

47.25 seconds
8 phases

Normative Series
Age: 32 weeks
Child: G44

Seconds

- A 2.75 ¶ Regards Examiner's right hand adjusting string. Holds left index finger in mouth. Rests right hand on table top. 2.0 Examiner presents ring in far median position, string right oblique. 2.75 Regards ring.



- B 3.0 Shifts regard to string. Lowers left hand to table top. Simultaneously abducts and lifts right hand; approaches string.



- C 3.75 Rakes string with right fingers. Lifts both hands to shoulder level and slaps table top. Scratches table top with right fingers; slides hand to table edge; lifts to shoulder level; slaps table top. 4.75 Regards ring. Extends both arms laterally to table edge; lifts hands. Regards string. 6.5 Places right hand on string. Leans on right forearm. 7.5 Reaches for string with left hand, pronating hand 5 inches right of midline. 8.5 Regards ring. Slides left hand 12 inches to the left; lifts hand. 9.75 Lifts right hand to shoulder level; lowers near string. Regards string. Again lifts right hand; lowers; scratches at string. 11.25 Pronates left hand on table top. Opens and closes right fingers; grasps string with thumb and index finger. 12.5 Regards ring. 13.25 Extends left arm laterally; semi-supinates hand.



- D 14.25 Holds string with right thumb and index finger. Regards string. Lifts left hand slightly and approaches string. Drops string from right hand. Places left hand over string without secular. Closes on string with right hand. Rakes at string with left hand. 16.25 Regards ring. Extends left arm and holds laterally at shoulder level. ... 17.75 Regards string. Closes on string with left hand. Regards ring. Drags string 5 inches left of midline with left hand; releases, lifting hand to shoulder level. Regards string. Lowers left hand to midline and brushes string to the right; lifts and abducts hand, pushing string to the left; pronates hand on table top; loops hand twice at crown level and slaps on table top; lifts hand to crown level. Regards table top.



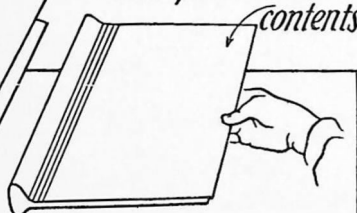
Instructions

PLACE BINDER ON TABLE

with left hand
BEND BACK
front cover



with right hand
REMOVE or REPLACE
inner folder with
contents



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