

TPO 13 – 1 Types of Social Groups 社会群组的类型

Life places us in a complex web of relationships with other people. Our humanness **arises out of** these relationships **in the course of** social interaction. **Moreover**, our humanness must be **sustained** through social interaction-and **fairly constantly** so. When an association continues long enough for two people to become linked together **by a relatively stable set of expectations**, it is called a relationship.

我们和他人一起生活在一个复杂的关系网中。我们的人性就产生于这种社会性的互动关系中，**与此同时**，我们的人性也必须通过经常性的社会互动才能得以**维持**。当两个人在**比较稳定的期望值下**的交流时间足够长并且形成一种联系时，这种联系就可以称为关系。

People are bound within relationships by two types of bonds: expressive ties and instrumental ties. Expressive ties are social links **formed when we emotionally invest ourselves in and commit ourselves to other people**. Through association with people who are meaningful to us, we achieve a sense of security, love, acceptance, companionship, and personal worth. Instrumental ties are social links formed when we cooperate with other people to achieve some goal. **Occasionally**, this may mean **working with instead of against** competitors. **More often**, we simply cooperate with others to reach some end without **endowing** the relationship with any larger significance.

人与人之间的关系可以分为两种：情感纽带和工具纽带。情感纽带是当我们做情感投资并致力于他人的一种社会关系。通过和对对我们来说十分重要的人交流从而得到安全感、爱情、认同、友谊以及个人价值等一系列情感。工具纽带是我们为达到某种目的而与他人进行合作时产生的社会联系方式。**有些时候**，这也许意味着变相与竞争者共事。**更多的时候**我们没有发展出任何更有意义的关系而只是简单的与他人合作达成目的。

Sociologists have built on the distinction between expressive and instrumental ties **to distinguish** between two types of groups: primary and secondary. A primary group involves two or more people who **enjoy a direct, intimate, cohesive relationship with one another**. Expressive ties **predominate** in primary groups; we **view the people as ends in themselves and valuable in their own right**. A secondary group **entails** two or more people who are involved in **an impersonal relationship** and have come together for a specific, practical purpose. Instrumental ties **predominate** in secondary groups; we **perceive people as means to ends rather than as ends in their own right**. Sometimes primary group relationships **evolve out of** secondary group relationships. This happens in many work settings. People on the job often develop close relationships with coworkers **as** they come to share gripes, jokes, gossip, and satisfactions.

社会学家基于情感纽带与工具纽带区别，将社会群体划分成两类：主要群体和次要群体。一个主要群体包含两个以上成员，他们彼此之间的关系是直接的,亲密的,聚合性的。情感纽带在主

批注 | 1: **arises out of**
起于....., 来自于

批注 | 2: **in the course of**
在...过程中; 在...期间

批注 | 3: **fairly**
英 ['feəli] 美 ['ferli]
•adv. 相当地; 公平地; 简直
constantly
英 ['kɒnstəntli] 美 ['kɑ:nstənt
li]
adv. 不断地; 时常地

批注 | 4: **endow**
英 [ɪn'dəʊ] 美 [ɪn'dəʊ]
•vt. 赋予; 捐赠; 天生具有

批注 | 5: **predominate**
英 [prɪ'dɒmɪneɪt] 美 [prɪ'dɑ:
mɪneɪt]
•vt. 支配, 主宰; 在...中占优势
•vi. 占主导(或支配)地位; 占优势

批注 | 6: **entail**
英 [ɪn'teɪl] 美 [ɪn'teɪl]
•vt. 使需要, 必需; 承担; 遗传给; 蕴含
•n. 引起; 需要; 继承

批注 | 7: **impersonal**
•adj. 客观的; 非个人的; 没有人情味的; 非人称的
•n. 非人称动词; 不具人格的事物

批注 | 8: **evolve out of**
从...发展来的

要社群中起主导作用，我们把人们自身看做目标和人们自己权利的价值。次要群体也是由两个以上成员组成，他们因非个人关系聚到一起都是为了一个特定的、实际的目标而努力。工具纽带在次要群体中起了重要的作用。我们**把人自身看做是人目标的途径而不是人们自己权利的目标**。有时主要群体的关系也会在次要群体中演化而来。这种现象在工作环境中时有发生。工作伙伴在共事过程中会彼此分享抱怨、玩笑、八卦以及满足感，由此也会发展出亲近的关系。

A number of conditions enhance the likelihood **that primary groups will arise**. First, group size is important. We find it difficult to get to know people personally when they are **milling about** and dispersed in large groups. In small groups we have a better chance to initiate contact and **establish rapport with** them. Second, face-to-face contact allows us to **size up** others. Seeing and talking with one another in close physical proximity makes possible a **subtle** exchange of ideas and feelings. And third, the **probability that we will develop primary group bonds** increases as we have frequent and continuous contact. **Our ties with people often deepen as we interact with them across time and gradually evolve interlocking habits and interests.**

很多情况也会增加**主要群体出现**的可能性。首先，群体的规模非常重要。我们很难去了解那些散布在大群体中的某个人。而在小群体中我们有更多机会发起联系并与他人建立关系。第二，面对面的交流能让我们更好地**了解**彼此。与他人近距离接触和交谈可以更好地交流情感和思想。第三，频繁持续的交流也能增加我们发展主要群体的可能性。**我们与他人的联系会随着我们与他人的互动时间而加深，并逐渐演化出连锁的习惯和兴趣。**

Primary groups are fundamental to us and to society. First, primary groups are critical to the socialization process. Within them, infants and children are introduced to the ways of their society. Such groups are the **breeding grounds** in which we acquire the norms and values that equip us for social life. Sociologists view primary groups as bridges between individuals and the larger society because they transmit, **mediate**, and interpret a society's cultural patterns and provide **the sense of oneness** so critical for social **solidarity**.

主要群体**是**人与人之间乃至整个社会的**基础**。首先，主要群体在社会化进程中至关重要。在主要群体里，婴儿与孩童可以学习处世方式。这种群体是我们社会生活必备规范和价值的培养地。社会学家将主要群体比作独立个体与整个社会之间的桥梁，因为它能传达，**调解**并解读一个社会的文化模式，提供一种归属感有助于社会团结。

Second, primary groups are fundamental because they provide **the settings in which** we **meet** most of our personal **needs**. Within them, we experience companionship, love, security, and **an overall sense of** well-being. **Not surprisingly**, sociologists find that the **strength** of a group's primary ties has implications for the group's functioning. For example, the stronger the primary group ties of a sports team playing together, the better their record is.

其次，主要群体之所以是基础是因为它能提供满足我们大多数人需求的环境。在主要群体中，我们可以收获友情、爱情、安全感以及所有幸福的情感。社会学家发现一个群体的主要纽带的

批注 [9]: **milling about**

[mɪl ə'baʊt]

•v. (人群) 漫无目标地乱转

批注 [10]: **rapport**

英 [ræ'pɔ:(r)] 美 [ræ'pɔ:r]

•n. 密切关系，交往；和谐一致；亲善，融洽；和睦关系

establish rapport with clients

与客户建立联系

批注 [11]: **size up**

英 美 [saɪz ʌp]

•v. 估计...的大小；符合要求了解、评估

批注 [12]: **subtle**

英 ['sʌtl] 美 ['sʌtl]

•adj. 微妙的；精细的；敏感的；狡猾的；稀薄的

批注 [13]: **the sense of oneness**

归属感，一体性的感觉

批注 [14]: **solidarity**

英 [sɒlɪ'dærəti] 美 [sɑ:lɪ'dærəti]

•n. 团结，团结一致

强弱往往暗示着这个群体的功能，这不足为奇。例如，一个体育团队的主要群体纽带越强，他们就越容易取得好成绩。

Third, primary groups are fundamental because they **serve as** powerful instruments for **social control**. Their members command and **dispense** many of the rewards that are so vital to us and that make our lives seem worthwhile. 【Should the use of rewards fail, members can frequently win by rejecting or threatening to **ostracize** those who **deviate from** the primary group's norms.】 【For instance, some social groups **employ shunning** (a person can remain in the community, but others are forbidden to interact with the person) **as a device** to bring (**individuals**) into line **individuals whose behavior goes beyond that allowed by the particular group.**】 Even more important, primary groups define social reality for us by structuring our experiences. ~~By providing us with definitions of situations, they **elicit from our behavior that conforms to group-devised meanings.**~~ Primary groups, then, serve both as **carriers** of **social norms** and as **enforcers** of **them**.

第三，主要群体之所以是基础还因为他们**充当**了强有力的**社会调控工具**。群体中的成员掌控并分配能够维持我们生存的极其重要的资源。如果奖励方式不当，群体内成员就会通过拒绝或威胁来摒弃那些背离群体规范的人，例如，一些社会群体采取规避措施（人可以留在群体中，但禁止其他成员与其交流），从而将特定群体中逾矩的个体慢慢同化与他人一致。更重要的是，主要群体通过构筑我们的经验来定义社会现实。他们根据我们的行为来定义我们的处境，以遵循群体分配的意义（~~通过给我们提供各种情况的定义，他们从我们的行为中引出符合群体设计的意义~~）。因此，主要群体既是社会规范的**载体**同时也是社会规范的**实施者**。

批注 [15]: dispense

英 [dɪ'spens] 美 [dɪ'spens]

- vt. 分配，分发；免除；执行
- vi. 免除，豁免

批注 [16]: ostracize

英 ['ɒstrəsaɪz] 美 ['ɑ:stɹəsɑɪz]

- vt. 放逐；排斥；按贝壳流放法放逐

批注 [17]: deviate from

英 美 ['di:vieɪt frəm]

- 偏离；脱离

批注 [18]: shunning

英 美 ['ʃʌnɪŋ]

- n. 回避

批注 [19]: elicit

英 [ɪ'lɪsɪt] 美 [ɪ'lɪsɪt]

- vt. 抽出，引出；引起

批注 [20]: devise

英 [dɪ'vaɪz] 美 [dɪ'vaɪz]

- vt. 设计；想出；发明；图谋；遗赠给
- n. 遗赠

TPO 13 – 2 Biological Clocks 生物钟

Survival and successful reproduction usually require the activities of animals to be coordinated with predictable events around them. **Consequently**, the timing and rhythms of biological functions must closely match periodic events like the solar day, the tides, the lunar cycle, and the seasons. The relations between animal activity and these periods, particularly for the daily rhythms, have been **of such interest** and importance that a huge amount of work has been done on them and the special research field of chronobiology has emerged. Normally, the constantly changing levels of an animal's activity—sleeping, feeding, moving, reproducing, metabolizing, and producing enzymes and hormones, for example—are well coordinated with environmental rhythms, but the key **question is whether** the animal's schedule **is** driven by external cues, such as sunrise or sunset, **or is** instead dependent somehow on internal timers that themselves generate the observed biological rhythms. Almost **universally**, biologists accept the idea that all eukaryotes (a category that includes most organisms except bacteria and certain algae) have internal clocks. By **isolating** organisms completely **from** external periodic cues, biologists learned that organisms have internal clocks. For instance, apparently normal daily periods of biological activity were maintained for about a week by the fungus *Neurospora* when it was **intentionally** isolated from all **geophysical timing cues** ~~while orbiting in a space shuttle~~. The **continuation** of biological rhythms in an organism without external cues **attests to its having an internal clock**.

通常动物的繁衍生息需要动物的活动与周围可预测活动同步。**因此**，生物功能的时间与节律也就理所应当必须与昼夜交替、潮涨潮落、月圆月缺和四季更迭这样的周期性事件保持大体一致。动物的活动与这些周期之间的关系，特别是与昼夜交替之间的关系，引起人们浓厚的兴趣，而且因为大量的工作都是在其基础之上完成的而意义重大，从而也延伸出了一个特别的研究领域：生物钟学。通常意义上讲，动物活动的经常性转变——例如，睡觉、喂食、活动、繁殖、新陈代谢以及产生酶和荷尔蒙，都与环境的节律同步。但是关键问题在于，动物的作息时间是否受制于外界环境，比如日出日落，又或者是依赖于他们自身独立的生物节律。生物学家**普遍认为**，所有真核生物（包括除病毒和某些藻类之外的所有生物）都有内部的生物钟。通过将生物与外界的周期性现象完全**隔离**，生物学家们发现生物的确有生物钟。例如，一种叫脉孢菌的细菌在航天飞机中与一切地球**时间线索**隔离的情况下，所有生物日常活动周期可以持续一个礼拜左右。在没有外界信号的时候生物也能延续生物节律，这说明生物是具有生物钟的。

When crayfish are kept continuously in the dark, even for four to five months, their compound eyes continue to adjust on a daily schedule for daytime and nighttime vision. Horseshoe crabs kept in the dark continuously for a year were found to maintain a persistent rhythm of brain activity that similarly adapts their eyes on a daily schedule for bright or for weak light. Like almost **all daily cycles** of animals ~~deprived of environmental cues~~, those measured for the horseshoe crabs in these conditions were not exactly 24 hours. Such a **rhythm** ~~whose period is approximately but not exactly a day~~ is called circadian. For different individual horseshoe

批注 [21]: **intentionally**

英 [ɪn'tenʃənəli] 美 [ɪn'tenʃənəli]

•adv. 故意地，有意地

批注 [22]: **geophysical**

英 [ˌdʒi:əʊ'fɪzɪkəl] 美 [ˌdʒi:əu'fɪzɪkəl]

•adj. 地球物理学的

批注 [23]: **orbit**

英 ['ɔ:brɪt] 美 ['ɔ:rbrɪt]

•n. 轨道；眼眶；势力范围；生活常规

•vi. 盘旋；绕轨道运行

•vt. 绕...轨道而行

批注 [24]: **shuttle**

英 ['ʃʌtl] 美 ['ʃʌtl]

•n. 航天飞机；穿梭；梭子；穿梭班机、公共汽车等

•vt. 使穿梭般来回移动；短程穿梭般运送

•vi. 穿梭往返

批注 [25]: **attest to**

•证明；证实

crabs, the circadian period ranged from 22.2 to 25.5 hours. A particular animal typically maintains its own characteristic cycle duration with great precision for many days. **Indeed**, stability of the biological clock's period is one of its major features, even when the organism's environment **is subjected to considerable changes** in factors, such as temperature, that would be expected to affect biological activity strongly. **Further evidence** ~~for persistent internal rhythms~~ **appears** when the usual external cycles are shifted-**either** experimentally **or** by rapid east-west travel over great distances. **Typically**, the animal's daily internally generated cycle of activity continues without change. **As a result**, its activities are shifted relative to the external cycle of the new environment. **The disorienting effects** of this mismatch between external time cues and internal schedules may persist, like our **jet lag**, for several days or weeks until certain cues such as the daylight/darkness cycle reset the organism's clock to synchronize with the daily rhythm of the new environment.

将小龙虾置于黑暗环境中，即使持续四五个月，它们的复眼也仍然继续按昼夜交替时间来调节视野。人们发现，马蹄蟹可以在黑暗中连续待一年依然能保持连续的大脑周期活动，这与他们的眼睛适应日常交替的强光光与弱光的周期一致。如同大多数失去外界线索的日循环动物一样，马蹄蟹在这种无光的情况下时长也不一定是准确的 24 小时。这种和一天的循环周期很接近但不完全同步的循环叫做生理节奏。不同的马蹄蟹生理节奏也不一样，在 22.2 小时到 25.5 小时之间浮动。有的动物可以将其特有的准确循环时间维持很多天。**的确**，稳定性是生物钟最重要的特性之一，即使生物所处环境的诸多要素发生显著变化，例如温度可能会对生物活性产生很大影响。通常外部循环发生突变以后，生物钟持续性就会出现进一步的证据，如科研或者横跨东西快速的长途旅行。**通常**，动物日常的周期循环活动仍然会继续并不会发生什么改变。**但与此同时**，生物活动又因为新环境的外部循环而产生变化。外界时间信号与内部固有的时间表不同步时出现的**迷乱的症状**，比如飞行时差综合症，我们会因此持续几天**或**数周，直到某些信号改变之后，比如日照和黑暗循环需要重新设定生物钟并同步到新环境的日常节律之。

Animals **need natural periodic signals** like sunrise **to maintain a cycle** whose period is precisely 24 hours. Such an external cue not only coordinates an animal's daily rhythms with particular features of the local solar day but also ~~because it normally does so day after day-~~ seems to keep the internal clock's period close to that of Earth's rotation. **【Yet despite this synchronization of the period of the internal cycle, the animal's timer itself continues to have its own genetically built-in period close to, but different from, 24 hours.】** Without the external cue, **the difference accumulates and so the internally regulated activities of the biological day drift continuously**, like the tides, **in relation to** the solar day. This drift has been studied extensively in many animals and in biological activities ranging from the hatching of fruit fly eggs to wheel running by squirrels. Light **has a predominating influence in** setting the clock. Even a fifteen-minute burst of light in **otherwise** sustained darkness can reset an animal's circadian rhythm. **Normally**, internal rhythms are kept in step by regular environmental cycles. For instance, if a homing pigeon is to navigate with its Sun compass, its clock must be properly set by cues provided by the daylight/darkness cycle.

动物需要日出等自然界的周期信号来保持 24 小时的循环周期。这样的外部信号不仅可以通过

批注 | 26]: **appear**

英 [ə'pɪə(r)] 美 [ə'pɪr]

•vi. 出现；显得；似乎；出庭；登场

批注 | 27]: **typically**

英 ['tɪpɪkli] 美 ['tɪpɪkli]

•adv. 代表性地；作为特色地

批注 | 28]: **jet lag**

英 美 ['dʒet læg]

•时差感，飞行时差反应

批注 | 29]: 句子长的时候，别忘记找主干！主要内容！

批注 | 30]: **in relation to**

英 美 [ɪn rɪ'leɪʃn tu]

•关于；涉及

批注 | 31]: **otherwise**

英 ['ʌðəwaɪz] 美 ['ʌðərwaɪz]

•adv. 否则；另外；在其他方面

•adj. 另外的；其他方面的；**原本，本来**

•conj. 其他；如果不；然后

当地白昼的特性调节动物的日常节律，而且还保证生物钟循环周期接近地球自转周期——因为这些活动日复一日。**但是**尽管与生物钟周期同步，动物的时钟仍然延续着它遗传上区别于外部的循环周期，接近 24 小时但不完全一致。在没有外部信号时，（差异就会累积，生物日内在调节活动就会不断漂移，）不同的收集方式和这种内在的调节机制作用下的生物活动保持着继续，比如潮汐，就与太阳日有关系。这一趋势在许多动物和生物活动中被广泛研究，从孵化的果蝇卵到松鼠的**滚轮跑**都有涉及。光在调节生物钟里占主导位置。甚至在**本来**持续黑暗环境下仅 15 分钟的强光照射也会改变动物的生理节律。**通常来讲**，内部节律会紧随环境循环的步伐。举个例子，如果一个家鸽以太阳作为其导航飞行，那么它的生物钟就必须严格遵守日出日落的循环周期。

真核生物：由真核细胞构成的生物。具有细胞核和其他细胞器。所有的真核生物都是由一个类似于细胞核的细胞（胚、孢子等）发育出来，包括除病毒和原核生物之外的所有生物。

脉孢菌属(*Neurospora*) 因子囊孢子表面有纵形花纹，犹如叶脉而得名，又称链孢霉。

TPO 13 – 3 Methods of **Studying** Infant Perception

研究 婴儿感知能力的方法

In the study of perceptual abilities of infants, a number of techniques are used to determine infants' responses to various stimuli. Because they cannot verbalize or fill out questionnaires, indirect techniques of naturalistic observation are used as the primary means of determining what infants can see, hear, feel, **and so forth**. Each of these methods compares an infant's state **prior to** the introduction of a stimulus with its state during or immediately following the stimulus. The difference between the two measures **provides the researcher with** an indication of the level and duration of the response to the stimulus. For example, if a **uniformly moving** pattern of some **sort** is passed across the visual field of a neonate (newborn), repetitive following movements of the eye occur. The occurrence of these eye movements provides evidence that the moving pattern is perceived at some level by the newborn. **Similarly**, changes in the infant's general level of **motor activity** - turning the head, blinking the eyes, crying, and so forth - have been used by researchers as visual indicators of the infant's perceptual abilities.

在婴儿感知能力的研究中，许多技术被应用于确定婴儿对不同刺激的反应。由于他们（婴儿）无法用言语表达或者填写问卷，所以自然观察的间接技术被应用成主要的方式去确定婴儿的视觉、听觉和感觉，**等等**。每种方法都**是**将刺激引入**前**婴儿的状态和刺激中或刺激之后婴儿产生的反应作对比。两种标准的不同性给研究人员提供了对刺激反应程度和反应持续时间。比如说，如果一个移动物体经过婴儿（新生儿）的视野，他们就会反复转动眼球。这种眼球转动的现象可以说明移动物体在一定程度上引起了新生儿的注意。**同样**，新生儿一般身体活动的改变——比如摇头、眨眼、哭闹或者其他，都可以为研究人员提供婴儿感知能力研究的直观参考。

Such techniques, however, have limitations. **First**, the observation may be unreliable in that two or more observers may not agree that the particular response occurred, or to what degree it occurred. **Second**, responses are difficult to quantify. Often the rapid and diffuse movements of the infant make it difficult to get an accurate record of the number of responses. **The third**, and most **potent**, limitation is that **it is not possible to be certain** that the infant's response was due **to the stimulus presented** or **to a change from no stimulus to a stimulus**. The infant may be responding to aspects of the stimulus different than those identified by the investigator. Therefore, when observational assessment is used as a technique for studying infant perceptual abilities, **care must be taken not to** overgeneralize from the data or to rely on one or two studies as conclusive evidence of a particular perceptual ability of the infant.

然而，这些技术是有局限性的。第一，两个甚至更多的观察者也许不会一致认可特殊反应的发生或者反应的程度，因此这种观察可能并不可靠。第二，反应很难量化，婴儿的很多反应快速且零散，研究人员很难准确记录。第三点也是**最重要**的一点，我们很难确定婴儿的反应是由现存的刺激或者是因为从无刺激到有刺激的变化。可能引起婴儿反应的并非是研究者认为的刺激方面。因此，当观测式评估被用作研究婴儿感知能力的技术时，**必须注意不要**从资料中过度归纳出结论，或（不要）将一个或两个研究作为婴儿一项特殊感知能力的决定性证据。

批注 [32]: prior to
•在.....之前; 居先

批注 [33]: uniformly
英 ['ju:nɪfɔ:mli] 美 ['ju:nɪfɔ:r mli]
•adv. 一致地

批注 [34]: uniformly moving
匀速移动

批注 [35]: motor activity
•肌动活动

motor
英 ['məʊtə(r)] 美 ['moutər]
•n. 发动机, 马达; 汽车
•adj. 汽车的; 机动的
•vi. 乘汽车
•vt. 以汽车载运

批注 [36]: potent
英 ['pəʊntnt] 美 ['poutnt]
•adj. 有效的; 强有力的, 有权势的; 有说服力的

批注 [37]: it is not possible to be certain
不可能**确定** (**肯定**) ...

批注 [38]: take care to...
小心做某事

Observational assessment techniques have become much more sophisticated, **reducing the limitations just presented**. Film analysis of the infant's responses, heart and respiration rate monitors, and nonnutritive sucking devices are used as effective tools in understanding infant perception. Film analysis permits researchers to carefully study the infant's responses over and over and in slow motion. Precise measurements can be made of the length and frequency of the infant's attention between two stimuli. Heart and respiration monitors **provide** the investigator **with** the number of heartbeats or breaths taken when a new stimulus is presented. Numerical increases are used as quantifiable indicators of heightened interest in the new stimulus. Increases in nonnutritive sucking were first used as an assessment measure by researchers in 1969. They **devised** an **apparatus** that connected a baby's **pacifier** to a counting device. As stimuli were presented, changes in the infant's sucking behavior were recorded. Increases in the number of sucks were used as an indicator of the infant's attention to or preference for a given visual display.

观察评估技术变得更加复杂，**上述局限性也在降低**。婴儿反应的影片分析、心脏和呼吸速率监视器以及无营养允吸设备 都是理解婴儿感知能力的非常有效的工具。影片分析允许观察者反复或者慢镜头播放来仔细研究婴儿的反应。通过观察婴儿在两次刺激之间注意力的长度和频率可以完成精准的测定。而心脏和呼吸频率监视器可以让观察者了解新刺激产生时婴儿的心跳次数和呼吸频率。数值增加被当做是新刺激中提升兴趣的可量化指标。1969年，研究者们首次将无营养吮吸设备动作次数的增加作为评估标准。他们设计出了一种连接婴儿无营养允吸设备和计数器的设备。只要出现刺激，这种设备就会记录下婴儿的吮吸习惯。吮吸次数增加就说明某种视觉展示引起了婴儿的注意或者婴儿偏好此种视觉展示。

Two additional techniques of studying infant perception have **come into vogue**. The first is the habituation-dishabituation technique, in which a single stimulus is presented repeatedly to the infant until there is a measurable **decline** (habituation) in whatever attending behavior is being observed. At that point a new stimulus is presented, and any recovery (dishabituation) in responsiveness is recorded. If the infant fails to dishabituate and continues to show habituation with the new stimulus, it is assumed that the baby is unable to perceive the new stimulus as different. The habituation-dishabituation paradigm has been used most extensively with studies of auditory and olfactory perception in infants. The second technique relies on **evoked potentials**, which are electrical brain responses that may be related to a particular stimulus **because of where they originate**. Changes in the electrical pattern of the brain indicate that the stimulus **is getting through** to the infant's central nervous system and eliciting some form of response.

另外两种研究婴儿感知的技术也逐渐开始流行。第一种是习惯与非习惯技术：给婴儿反复展示一种单一的刺激，直到观察到婴儿对这一刺激形成习惯并出现可测量的减弱（习惯性）。接着当出现一种新的刺激时，任何反应的恢复也都会被记录下来（非习惯性）。如果婴儿对新刺激没有不习惯而是继续表现出习惯性，那么我们就可以推测婴儿没有办法识别出新的刺激有什么不同。这种习惯与非习惯的技术在婴儿的听觉与嗅觉感知能力的研究上广泛运用。第二种技术基于**诱发电位**，大脑的弱电反应可能**因其起源**而与特定刺激有关系。脑电图发生变化意味着刺

批注 [39]: 个人翻译：减少这种局限（的技术）性刚刚出现

批注 [40]: **devise**

英 [dɪ'vaɪz] 美 [dɪ'vaɪz]

- vt. 设计；想出；发明；图谋；遗赠给
- n. 遗赠

批注 [41]: **apparatus**

英 [əpə'reɪtəs] 美 [əpə'ræətəs]

- n. 装置，设备；仪器；器官

批注 [42]: **pacifier**

英 ['pæsɪfaɪə(r)] 美 ['pæsɪfaiə]

- n. 调解人；抚慰者；橡皮奶头；安抚奶嘴；镇静剂；镇静物
无营养吮吸设备（橡皮奶头/安抚奶嘴）

批注 [43]: **come into vogue**

- 开始流行起来

批注 [44]: **decline**

英 [dɪ'klaɪn] 美 [dɪ'klaɪn]

- n. 下降；衰退；斜面
- vi. 下降；衰落；谢绝
- vt. 谢绝；婉拒

批注 [45]: **evoked potentials**

- 诱发电位；诱发性电位

激通过婴儿的中枢神经系统，引起某种形式的反应。

Each of the **preceding** techniques provides the researcher with evidence that the infant can detect or discriminate between stimuli. With these sophisticated observational assessment and electro-**physiological** measures, we know that the neonate of only a few days is **far** more **perceptive** than previously **suspected**. However, these measures are only "indirect" indicators of the infant's perceptual abilities.

上述每种技术都可以给研究者提供证据，证明婴儿能够探知或辨别刺激。通过这些复杂的观察评估和电生理学的测量，我们知道刚出生几天的新生儿的感知能力超乎我们的想象。然而，这些测量也都仅仅是婴儿感知能力的“间接”指标。

诱发电位(Evoked Potentials, EPs)，也称诱发反应(Evoked Response)，是指给予神经系统(从感受器到大脑皮层)特定的刺激，或使大脑对刺激(正性或负性)的信息进行加工，在该系统和脑的相应部位产生的可以检出的、与刺激有相对固定时间间隔(锁时关系)和特定位相的生物电反应。

一门研究活体内产生电流的基本机理的学科。

批注 [46]: **physiological**

英 [ˌfɪziəˈlɒdʒɪkəl] 美 [ˌfɪziəˈlɑːdʒɪkəl]

•adj. 生理学的，生理的

批注 [47]: **注意**: 看到 far，别以为整句就是否定的意思。

单词 far 在这里修饰**比较级**

more，意思是：

更加的 **perceptive**.

perceptive

英 [pəˈseptɪv] 美 [pərˈseptɪv]

•adj. 洞察力强的；思维敏捷的；有感知能力的

批注 [48]: **suspect**

英 [səˈspekt] 美 [səˈspekt]

•v. 怀疑；**猜想**

•n. 嫌疑犯

•adj. 靠不住的；可疑的